



The University of Texas at Austin

WHAT STARTS HERE CHANGES THE WORLD

The University of  
**Texas**  
at Austin

General Information  
2021-2022



The University of Texas at Austin  
Office of the Registrar

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# General Information

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## Introduction

*The benefits of education and of useful knowledge, generally diffused through a community, are essential to the preservation of a free government.*

**Sam Houston**

*Cultivated mind is the guardian genius of Democracy, and while guided and controlled by virtue, the noblest attribute of man. It is the only dictator that freemen acknowledge, and the only security which freemen desire.*

**Mirabeau B. Lamar**

*Where liberty has arisen, learning must be cherished—or liberty itself becomes a fragile thing.*

**Lyndon B. Johnson**

## Mission of the University

*The mission of The University of Texas at Austin is to achieve excellence in the interrelated areas of undergraduate education, graduate education, research, and public service.*

*The University provides superior and comprehensive educational opportunities at the baccalaureate through doctoral and special professional educational levels. The University contributes to the advancement of society through research, creative activity, scholarly inquiry, and the development and dissemination of new knowledge, including the commercialization of University discoveries. The University preserves and promotes the arts, benefits the state's economy, serves the citizens through public programs, and provides other public service.*

## Officers of Administration

### The University of Texas at Austin

Jay C. Hartzell, PhD, *President*

Sharon Wood, PhD, *Executive Vice President and Provost*

Darrell L. Bazzell, BA, *Senior Vice President and Chief Financial Officer*

Scott Rabenold, MBA, *Vice President for Development*

LaToya C. Smith, PhD, *Vice President for Diversity and Community Engagement*

James Davis, JD, *Vice President for Legal Affairs*

Martin Harris, MD, MBA, *Interim Vice President for Medical Affairs*

Daniel T. Jaffe, PhD, *Vice President for Research*

Soncia Reagins-Lilly, EdD, *Vice President for Student Affairs and Dean of Students*

Christopher M. Del Conte, MEd, *Vice President and Athletics Director*

Emily Reagan, MBA, *Vice President and Chief Marketing and Communications Officer*

Nancy A. Brazzil, BS, *Deputy to the President*

Allan H. Cole Jr., PhD, *Deputy to the President for Societal Challenges and Opportunities*

Richard R. Flores, PhD, *Deputy to the President for Academic Priorities*

Paul Kinscherff, MBA, MPAff, *Deputy to the President for Business Development and Planning*

Andrea Sheridan, BS, *Deputy to the President for Governmental Affairs and Initiatives*

Jeffery L. Graves, JD, *Chief Compliance Officer*

Sandy Jansen, BBA, *Chief Audit Executive*

## Administrative Officers of the Colleges and Schools

Mark J.T. Smith, PhD, *Senior Vice Provost for Academic Affairs and Dean, Graduate School*

D. Michelle Addington, DDes, *Dean, School of Architecture*

Lillian F. Mills, PhD, *Dean, Red McCombs School of Business*

Jay M. Bernhardt, PhD, MPH, *Dean, Moody College of Communication*

Charles R. Martinez, Jr., PhD, *Dean, College of Education*

Roger T. Bonnecaze, PhD, PE, *Interim Dean, Cockrell School of Engineering*

Ramón Rivera-Servera, PhD, *Dean, College of Fine Arts*

Claudia I. Mora, PhD, *Dean, John A. and Katherine G. Jackson School of Geosciences*

Eric T. Meyer, PhD, *Dean, School of Information*

Ward Farnsworth, JD, *Dean, School of Law*

Ann Huff Stevens, PhD, *Dean, College of Liberal Arts*

George Macones, MD, MSCE, *Interim Dean, Dell Medical School*

David A. Vanden Bout, PhD, *Interim Dean, College of Natural Sciences*

Alexa K. Stuijbergen, PhD, RN, FAAN, *Dean, School of Nursing*

Samuel M. Poloyac, PharmD, PhD, *Dean, College of Pharmacy*

J.R. DeShazo, PhD, *Dean\*, Lyndon B. Johnson School of Public Affairs*

Luis H. Zayas, PhD, *Dean, Steve Hicks School of Social Work*

Brent L. Iverson, PhD, *Interim Senior Vice Provost for Undergraduate Education and Dean of the School of Undergraduate Studies*

## The University of Texas System

James B. Milliken, JD, *Chancellor*

Archie L. Holmes Jr., PhD, *Executive Vice Chancellor for Academic Affairs*

Scott C. Kelley, EdD, *Executive Vice Chancellor for Business Affairs*

John M. Zerwas, MD, *Executive Vice Chancellor for Health Affairs*

Daniel H. Sharphorn, JD, *Vice Chancellor and General Counsel*

Stacey Napier, JD, *Vice Chancellor for Governmental Relations*

Randa S. Safady, PhD, *Vice Chancellor for External Relations, Communications, and Advancement Services*

Amy Shaw Thomas, JD, *Senior Vice Chancellor for Health Affairs*

David L. Lakey, MD, *Vice Chancellor for Health Affairs and Chief Medical Officer*

\* Dean-designate until September 10, 2021.

## Board of Regents

### Officers

Kevin P. Eltife, *Chairman*

Janiece M. Longoria, *Vice Chairman*

James C. "Rad" Weaver, *Vice Chairman*

Francie A. Frederick, *General Counsel to the Board of Regents*

### Members

#### Terms scheduled to expire February 1, 2023

R. Steven Hicks, Austin

Janiece M. Longoria, Houston

James C. "Rad" Weaver, San Antonio

#### Terms scheduled to expire February 1, 2025

Christina M. Crain, Dallas  
Jodie Lee Jiles, Houston  
Kelcy L. Warren, Dallas

#### Terms scheduled to expire February 1, 2027

Kevin P. Eltife, Tyler  
Nolan E. Perez, Harlingen  
Stuart W. Stedman, Houston

#### Student Regent with term to expire May 31, 2022

Thuy Dan "Mimi" Nguyen, The University of Texas at Austin

Each Regent's term expires when a successor has been appointed and qualified and has taken the oath of office. The Student Regent serves a one-year term.

## Academic Calendar

The academic calendar indicates key dates and deadlines for important academic requirements and/or activities including, but not limited to, the start and end dates of classes, holidays, exam days, and registration dates.

The academic calendar is set by the University's Faculty Council according to the [Principles for the Development of the Academic Calendar](#) which are subject to the Texas Higher Education Coordinating Board's [Rules for the Common Calendar](#), found in [Texas Administrative Code Title 19, Part 1, Chapter 4A, Section 4.5](#). The calendar is typically divided into the fall, spring, and summer semesters.

The academic calendar published in this catalog reflects approved dates at the time of publication. See <https://registrar.utexas.edu/calendars> for additional information about current, upcoming, and archived academic calendars.

### Long Session 2021-2022

July 23	Friday: Last day during the summer session that new summer session students, continuing students, readmitted students, and new graduate students can register for the fall semester.
July 27	Tuesday: Tuition bills for the fall semester distributed to students electronically. Notice is sent to the e-mail address on the student's record.
August 13	Friday: New International Student Orientation Part I (this program is separate of the university required new student orientation session hosted by New Student Services; visit website for more information)
August 16	Monday: New International Student Orientation Part II this program is separate of the university required new student orientation session hosted by New Student Services; visit website for more information)
August 17	Tuesday: University required Orientation for new undergraduate transfer students that did not attend Orientation in June or July. Fall tuition payment deadline is 5:00 pm for undergraduate students who registered for the fall semester by Friday, July 23. Fall tuition may be paid in full or in installments.

August 18	Wednesday: University required Orientation and testing begin for new freshmen students that did not attend Orientation in June or July.
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### Fall Semester 2021

August 20	Friday: Registration for the fall semester for new undergraduate students and all graduate students who have not yet registered. Last day a graduate student may register in absentia. University residence halls open at 7:00 a.m. University Health Services benefits become available to registered students.
August 23	Monday: Registration for the fall semester for new, readmitted, and continuing students who have not yet registered. Add/drop for the fall semester for students who registered and paid their minimum tuition and fees by Tuesday, August 17.
August 24	Tuesday: Registration and add/drop for the fall semester for all students.
August 25	Wednesday: Classes begin.
August 30	Monday: Fourth class day; Last day of the official add/drop period; after this date, changes in registration may require the approval of the department chair and usually the student's dean. Last day undergraduate students may register without the approval of the registrar. Last day graduate students may register and pay tuition without the approval of the graduate dean. Last day law students may register and pay tuition without the approval of the dean. Tuition payment deadline is 5:00 p.m. for graduate and law students. Tuition may be paid in full or in installments.
September 6	Monday: Labor Day holiday.
September 10	Friday: Twelfth class day; this is the date the official enrollment count is taken. Students who registered after July 23 must pay their minimum amount due by 5:00 p.m. in order to confirm attendance. Second fall tuition date for students who have already confirmed attendance. All students must pay their remaining tuition amount due or be automatically placed on installment plan. Last day an undergraduate student may add a class except for rare and extenuating circumstances. Last day to drop a class for a possible refund. (See General Information, Academic, Policies and Procedures and Registration, Tuition, and Fees for details.) Last day a graduate student may, with the required approvals, add a class. Last day a law student may add a class without the approval of the dean.
October 13	Wednesday: Intrsemester reports due in the deans' offices.
October 15	Friday: Final undergraduate tuition payment due date.
October 20	Friday: Last day to apply for a law degree. Last day a law student may register in absentia.
October 21-22, 25-27	Thursday-Friday, Monday-Wednesday: Academic advising for continuing and readmitted students for the spring semester.

October 28	Thursday: Last day an undergraduate student may, with the dean's approval, withdraw from the University or drop a class except for urgent and substantiated, nonacademic reasons. Last day an undergraduate student may change registration in a class to or from the pass/fail basis. Last day a law student may change registration in a class to or from the pass/fail basis. Last day to apply for an undergraduate degree.
October 25- November 5	Daily: Registration for the spring semester for continuing and readmitted students.
November 9	Tuesday: Tuition bills for the spring semester distributed to students electronically. Notice is sent to the e-mail address on the student's record.
November 12	Friday: Last day to apply for a graduate degree.
November 19	Friday: Last day a doctoral candidate may hold a dissertation defense for the fall 2021 semester.
November 22	Monday: Last day a graduate student may change registration in a class to or from the credit/no credit basis.
November 24-27	Wednesday-Saturday: Thanksgiving holidays.
December 3	Friday: Last day to submit master's report, recital, thesis, doctoral dissertation, or treatise to the graduate dean.
December 4	Saturday: Fall graduation ceremonies in some of the colleges and schools.
December 6	Monday: Last class day. Last day a graduate student or a law student may, with the required approvals, drop a class or withdraw from the University. Last day an undergraduate may register in absentia.
December 7	Tuesday: Reading day in the School of Law.
December 7-8, 12	Tuesday-Wednesday, Sunday: No-class days.
December 8-11, 13-17	Wednesday-Saturday, Monday-Friday: Fall semester final examinations in the School of Law.
December 9-11, 13-15	Thursday-Saturday, Monday-Wednesday: Fall semester final examinations except in the School of Law.
December 16	Thursday: University residence halls close at 9:00 am.
December 17	Friday: Commissioning of ROTC graduates.
December 18	Saturday: Official graduation date. (No public exercises).

## Spring Semester 2022\*

January 3-6	Monday-Thursday: Registration for continuing students and readmitted students who have not yet registered. To complete registration, undergraduate students must pay tuition by 5:00 p.m. on Thursday, January 6; graduate students and law students must pay tuition by 5:00p.m. on Friday, January 21.
January 6	Thursday: Tuition payment deadline is 5:00 p.m. for undergraduate students who registered for spring semester by Thursday, January 6. Tuition may be paid in full or in installments.

January 7	Friday: New International Student Orientation. For the most up to date information regarding orientation dates/schedules, please visit New Student Services website (this program is separate of the university required new student orientation session hosted by New Student Services; visit website for more information).
January 10	Monday: Orientation and testing begin for new undergraduate students.
January 11-14	Tuesday-Friday: Registration for the spring semester for new, readmitted, and continuing students who have not yet registered. To complete registration, undergraduate students must pay tuition by 5:00 p.m. on Wednesday, February 2; graduate and law students must pay tuition by 5:00 p.m. on Friday, January 21. Add/drop for the spring semester for students who have already registered and paid their tuition by Wednesday, February 2.
January 14	Friday: University residence halls open at 9:00 a.m. University Health Services benefits become available to registered students.
January 17	Monday: Martin Luther King Jr. Day holiday
January 18	Tuesday: Classes begin.
January 21	Friday: Fourth class day; Last day of the official add/drop period; after this date, changes in registration may require the approval of the department chair and usually the student's dean. Last day undergraduate students may register without the approval of the registrar. (See General Information, Academic Policies and Procedures, for details.) Last day graduate students may register and pay tuition without the approval of the graduate dean. Last day law students may register and pay tuition without the approval of the dean. Tuition payment deadline is 5:00 p.m. for graduate, and law students. Tuition may be paid in full or in installments.
February 2	Wednesday: Twelfth class day; this is the date the official enrollment count is taken. Last day an undergraduate student may add a class except for rare and extenuating circumstances. Students who registered after January 11 must pay their minimum amount due by 5:00 p.m. in order to confirm attendance. Second fall tuition date for students who have already confirmed attendance. All students must pay their remaining tuition amount due or be automatically placed on installment plan. Last day to drop a class for a possible refund. (See General Information, Academic Policies and Procedures and Registration, Tuition, and Fees for details.) Last day a graduate student may, with the required approvals, add a class. Last day a law student may add a class. Last day a law student may drop a class without the approval of the dean.
March 5	Saturday: Intrasemester reports due in the deans' offices.
March 14-19	Monday-Saturday: Spring break.
March 15	Tuesday: Final tuition payment due for students who selected the installment plan.
March 28	Monday: Last day to apply for a law degree. Last day a law student may register in absentia.

April 4	Monday: Last day an undergraduate student may, with the dean's approval, withdraw from the University or drop a class except for urgent and substantiated, nonacademic reasons. Last day an undergraduate student may change registration in a class to or from the pass/fail basis. Last day a law student may change registration in a class to or from the pass/fail basis. Last day to apply for an undergraduate degree.
April 9	Saturday: 74th Annual Honors Day Program.
April 13-15, 18-22	Wednesday-Friday, Monday-Friday: Academic advising for continuing and readmitted students for the summer session and the fall semester.
April 15	Friday: Last day to apply for a graduate degree.
April 18-29	Daily: Registration for the summer session and the fall semester for continuing and readmitted students.
April 22	Friday: Last day a doctoral candidate may hold a dissertation defense for the spring 2022 semester.
April 25	Monday: Last day a graduate student may change registration in a class to or from the credit/no credit basis.
May 2	Monday: Last class day in the School of Law. Last day a law student may, with the required approvals, drop a class or withdraw from the University.
May 3	Tuesday: Reading day in the School of Law. Tuition bills for the summer session distributed to students electronically. Notice is sent to the e-mail address on the student's record.
May 4-7, 9-13	Wednesday-Saturday, Monday-Friday: Spring semester final examinations in the School of Law.
May 6	Friday: Last class day except in the School of Law. Last day to submit master's report, recital, thesis, doctoral dissertation, or treatise to the graduate dean. Last day a graduate student may, with the required approvals, drop a class or withdraw from the University. Last day an undergraduate student may register in absentia.
May 9-10, 15	Monday-Tuesday, Sunday: No-class days.
May 11-14, 16-17	Wednesday-Saturday, Monday-Tuesday: Spring semester final examinations except in the School of Law.
May 18	Wednesday: University residence halls close at 9:00 am (except for graduating students).
May 19	Thursday: Tuition payment deadline is 5:00 pm for undergraduate students who registered for the summer session during the spring.
May 20-21	Friday-Saturday: Graduation ceremonies in the colleges and schools.
May 20	Friday: Commissioning of ROTC graduates.
May 21	Saturday: Commencement (official graduation date).
May 22	Sunday: University residence halls close at 9:00 am for graduating students.

## Summer Semester 2022

May 18	Wednesday: Maymester begins.
May 24-26	Tuesday-Thursday: Registration for continuing and readmitted students for the summer session for those who have not yet registered. Add/drop for the summer session for students who have registered and paid their tuition.
May 28	Saturday: Summer residence halls open at 9:00 a.m. University Health Services benefits become available to registered students.
May 30	Monday: Memorial Day holiday.
May 31	Tuesday: University required Orientation and testing begin for new undergraduate students (for the most up to date information regarding orientation dates/schedules, please visit New Student Services website).
May 31-June 1	Tuesday-Wednesday: Registration for the summer sessions; students who register on these dates can register for any summer session: first term, whole session, nine-week, and second term. To complete registration, undergraduate students must pay tuition by 5:00 p.m. on Wednesday, June 1; graduate and law students must pay tuition by 5:00 p.m. on Friday, June 3.
June 1	Wednesday: Tuition payment deadline is 5:00 p.m. for undergraduates.
June 2	Thursday: Classes begin for first-term, nine-week, and whole-session classes.
June 3	Friday: Last day of the official add/drop period for first-term, nine-week, and whole-session classes; after this date, changes in registration may require the approval of the department chair and usually the student's dean. (See General Information, Academic Policies and Procedures, for details.) Tuition payment deadline is 5:00 p.m. for graduate and law students.
June 7	Tuesday: Fourth class day for first-term, nine-week, and whole-session classes; this is the date the official enrollment count is taken. Last day an undergraduate student may add a first-term, nine-week, or whole-session class except for rare and extenuating circumstances. Payment for added classes (add bill) due by 5:00 pm. Last day to drop a first-term, nine-week, or whole-session class for a possible refund. (See General Information, Academic Policies and Procedures and Registration, Tuition, and Fees for details.) Last day a graduate student may, with the required approvals, add a first-term, nine-week, or whole-session class. Last day a law student may add a first-term, nine-week, or whole-session class. Last day a law student may drop a class without the approval of the dean.
June 8	Wednesday: Registration for the fall semester begins for new summer session students who have paid their tuition for summer, and for continuing and readmitted students, and for new graduate students who have not yet registered for fall.

June 22	Wednesday: Last day a student may change registration in a first-term, nine-week, or whole-session class to or from the pass/fail or credit/no credit basis.	July 26	Tuesday: Tuition bills for the fall semester distributed to students electronically. Notice is sent to the e-mail address on the student's record. Last class day for nine-week classes. Last day to drop a nine-week class. (See General Information, Academic Policies and Procedures, for details.)
June 28	Tuesday: Last class day for first-term two-hour law classes. Last day to drop a first-term two-hour law class, with required approvals.	July 27	Wednesday: Reading day for nine-week law classes.
June 29	Wednesday: Reading day for first-term two-hour law classes.	July 27-28	Wednesday-Thursday: Final examinations for nine-week classes except in the School of Law.
June 30	Thursday: Final examinations for first-term two-hour law classes.	July 28-29	Thursday-Friday: Final examinations for nine-week law classes.
July 4	Monday: Independence Day Holiday.	July 29	Friday: Last day a student may change registration in a second-term class to or from the pass/fail or credit/no credit basis. Last day to apply for a graduate degree. Last day a doctoral candidate may hold a dissertation defense for the summer 2022 term.
July 6	Wednesday: Last class day for first-term three-hour law classes. Last day to drop a first-term three-hour law class, with required approvals.	July 30	Saturday: Nine-week session housing must check out of University Residence Halls by 9:00 a.m.
July 7	Thursday: Last class day for first-term classes. Last day to drop a first-term class, with required approvals. Reading day for first-term three-hour law class.	August 5	Friday: Last class day for second-term two-hour law classes. Last day to drop a second-term two-hour law class, with required approvals.
July 8	Friday: Registration for students enrolling for the second term only. To complete registration, undergraduate students must pay tuition by 5:00 p.m. on Friday, July 8; graduate and law students must pay tuition by 5:00 p.m. on Tuesday, July 12.	August 6	Saturday: Reading day for second-term two-hour law classes.
July 8-9	Friday-Saturday: Final examinations for first-term classes, including first-term three-hour law classes. Nine-week and whole-session classes do not meet.	August 8-9	Monday-Tuesday: Final examinations for second-term two-hour law classes.
July 9	Saturday: First session housing must check out of University residence halls by 2:00 p.m.	August 12	Friday: Tuition payment deadline is 5:00 p.m. for undergraduate students who registered for the fall semester by Wednesday, July 20. The payment deadline for graduate and law students is the fourth class day of the fall semester. Last class day for second-term and whole-session classes, including three- and four-hour law classes. Last day to submit master's report, recital, thesis, doctoral dissertation, or treatise to the graduate dean. Last day to drop a second-term or whole-session class. (See General Information, Academic Policies and Procedures, for details.) Last day an undergraduate student may register in absentia.
July 10	Sunday: Second session housing may check in to University residence halls starting at 9:00 a.m.	August 13	Saturday: Final examinations for second-term and whole-session classes, except in the School of Law. Reading day in the School of Law.
July 11	Monday: Classes begin for second-term classes.	August 15	Monday: Final examinations for second-term and whole-session classes. Final examinations for second-term and whole-session law classes. Official graduation date (no public exercises).
July 12	Tuesday: Last day of the official add/drop period for the second term; after this date, changes in registration may require the approval of the department chair and usually the student's dean. (See General Information, Academic Policies and Procedures, for details.) Tuition payment deadline is 5:00 p.m. for undergraduate, graduate and law students.	August 16	Tuesday: Summer residence halls close at 9:00 a.m.
July 14	Thursday: Fourth class day for second-term classes; this is the date the official enrollment count is taken. Last day an undergraduate student may add a second-term class except for rare and extenuating circumstances. Payment for added classes (add bill) due by 5:00 p.m. Last day to drop a second-term class for a possible refund. (See General Information, Academic, Policies and Procedures and Registration, Tuition, and Fees for details.) Last day a graduate student may, with the required approvals, add a second-term class. Last day a law student may add a second-term course. Last day a law student may drop a second-term course without the approval of the dean.		
July 15	Friday: Last day to apply for an undergraduate or a law degree. Last day a law student may register in absentia.		
July 20	Wednesday: Last day during the summer session for new summer session students and for continuing, readmitted, and new graduate students to register for the fall semester.		

\* Spring 2022 dates updated November 2021.

## The University

### The University Catalog

The University catalog is an official University publication describing academic programs, student services, general regulations, requirements and procedures.

The catalog of the University is the document of authority for all students. Any academic unit may issue additional or more specific

information that is consistent with approved policy. However, the information in the catalog supersedes that issued by any other unit if there is a conflict between the two. The University reserves the right to change the requirements given in the catalog at any time.

The catalog consists of five issues: the [Undergraduate Catalog](#), the [Graduate Catalog](#), the [Law School Catalog](#), the [Medical School Catalog](#), and the [General Information Catalog](#).

The *Undergraduate Catalog* is published in even-numbered years; the *Graduate Catalog* is published annually; the *Law School Catalog* is published in even-numbered years; the *Medical School Catalog* is published annually. These issues contain regulations and degree requirements that apply to undergraduate, graduate, School of Law, and School of Medicine students. Regulations are valid only for the academic years indicated by the dates in the title of each publication; for an explanation of the period for which degree requirements are valid, see the section "Graduation Under a Particular Catalog" in each issue.

The *General Information Catalog*, published annually, contains current and historical information about the University's organization and physical facilities. It gives important information about academic policies and procedures that apply to all students for the academic year indicated in the title of the publication. It includes the official academic calendar, admission procedures and residence requirements, information about tuition and fees, and policies on quantity of work, grades and the grade point average, credit by examination and correspondence, adding and dropping courses, withdrawal from the University, and scholastic probation and dismissal. *General Information* is meant to be used along with each of the other issues; students must be familiar with the regulations given there and with those given in the issue that covers their degree program.

The lists of available course offerings for each academic unit are correct at the time of publication but are subject to change. They are superseded by course offerings published each semester and summer session in the *Course Schedule*.

Assistance in obtaining information about the University—including costs, refund policies, withdrawal, academic programs, the faculty, accreditation, and facilities and services for disabled persons—is available from Mark Simpson, Assistant Vice Provost and Registrar, at (512) 475-7510 and at The University of Texas at Austin, Office of the Registrar, P O Box 7216, Austin TX 78713-7216.

## Statement on Equal Educational Opportunity

The University of Texas at Austin is committed to an educational and working environment that provides equal opportunity to all members of the University community. In accordance with federal and state law, the University prohibits unlawful discrimination, including harassment, on the basis of race; color; religion; national origin; gender, including sexual harassment; age; disability; citizenship; and veteran status. Discrimination on the basis of sexual orientation, gender identity, and gender expression is also prohibited pursuant to University policy. Any member of the University community who believes they have been subject to discrimination, harassment, or retaliation should contact the Office for Inclusion and Equity in person at SSB 3.212, Austin TX 78712; via e-mail at [equity@utexas.edu](mailto:equity@utexas.edu); or by phone at (512) 471-1849.

## Accreditation

The University of Texas at Austin is accredited by the [Southern Association of Colleges and Schools Commission on Colleges](#) to award baccalaureate, masters, and doctorate degrees. Contact Southern Association of Colleges and Schools Commission on Colleges at 1866

Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of The University of Texas at Austin.

## Affiliations

The University is a member of the Association of American Universities and the Oak Ridge Associated Universities, among others.

## Student Honor Code

*As a student of The University of Texas at Austin, I shall abide by the core values of the University and uphold academic integrity.*

## University Code of Conduct

*The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the University is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.*

## Organization of the University's Academic Units

Through the following academic units, the University offers close to 300 undergraduate, graduate, and professional degree programs.

### School of Architecture

#### Red McCombs School of Business

- Department of Accounting
- Department of Business, Government, and Society
- Department of Finance
- Department of Information, Risk and Operations Management
- Department of Management
- Department of Marketing

### Moody College of Communication

- Stan Richards School of Advertising and Public Relations
- Department of Speech, Language, and Hearing Sciences
- Department of Communication Studies
- School of Journalism and Media
- Department of Radio-Television-Film

### College of Education

- Department of Curriculum and Instruction
- Department of Educational Leadership and Policy
- Department of Educational Psychology
- Department of Kinesiology and Health Education
- Physical Education Program
- Department of Special Education

### Cockrell School of Engineering

- Department of Aerospace Engineering and Engineering Mechanics
- Department of Biomedical Engineering
- Materials Science and Engineering Program
- McKetta Jr. Department of Chemical Engineering
- Department of Civil, Architectural, and Environmental Engineering
- Department of Electrical and Computer Engineering
- J. Mike Walker Department of Mechanical Engineering
- Hildebrand Department of Petroleum and Geosystems Engineering

## College of Fine Arts

- Department of Art and Art History
- Department of Arts and Entertainment Technologies
- Department of Design
- Sarah and Ernest Butler School of Music
- School of Design and Creative Technologies
- Department of Theatre and Dance

## John A. and Katherine G. Jackson School of Geosciences

- Energy and Earth Resources Graduate Program
- Department of Geological Sciences

## Graduate School

### School of Information

### School of Law

## College of Liberal Arts

- John L. Warfield Center for African and African American Studies
- Department of African and African Diaspora Studies
- Department of Air Force Science
- Department of American Studies
- Department of Anthropology
- Center for Asian American Studies
- Department of Asian Studies
- Edward A. Clark Center for Australian and New Zealand Studies
- Department of Classics
- Program in Comparative Literature
- Américo Paredes Center for Cultural Studies
- Department of Economics
- Department of English
- Center for European Studies
- Department of French and Italian
- Department of Geography and the Environment
- Department of Germanic Studies
- Department of Government
- Department of History
- Humanities Institute
- Schusterman Center for Jewish Studies
- Teresa Lozano Long Institute of Latin American Studies
- Department of Linguistics
- Center for Mexican American Studies
- Department of Mexican American and Latina/o Studies
- Center for Middle Eastern Studies
- Department of Middle Eastern Studies
- Department of Military Science
- Department of Naval Science
- Department of Philosophy
- Plan II Honors Program
- Department of Psychology
- Department of Religious Studies
- Department of Rhetoric and Writing
- Center for Russian, East European, and Eurasian Studies
- Department of Slavic and Eurasian Studies
- Department of Sociology
- South Asia Institute

- Department of Spanish and Portuguese
- UTeach-Liberal Arts
- Center for Women's and Gender Studies
- Thomas Jefferson Center for the Study of Core Texts and Ideas

## Dell Medical School

- Department of Diagnostic Medicine
- Department of Medical Education
- Department of Medicine
- Department of Neurology
- Department of Neurosurgery
- Department of Oncology
- Department of Ophthalmology
- Department of Pediatrics
- Department of Population Health
- Department of Psychiatry
- Department of Surgery and Perioperative Care
- Department of Women's Health

## College of Natural Sciences

- Department of Astronomy
- Biology Instruction Office
- Department of Chemistry
- Department of Computer Science
- Department of Human Development and Family Sciences
- School of Human Ecology
- Department of Integrative Biology
- Department of Marine Science
- Department of Mathematics
- Department of Molecular Biosciences
- Department of Neuroscience
- Neuroscience Graduate Program
- Department of Nutritional Sciences
- Department of Physics
- Department of Statistics and Data Sciences
- Division of Textiles and Apparel
- UTeach-Natural Sciences

## School of Nursing

## College of Pharmacy

## Lyndon B. Johnson School of Public Affairs

## Steve Hicks School of Social Work

## School of Undergraduate Studies

## Historical Sketch

The idea of a university for Texas is as old as the state itself. The Declaration of Texas Independence includes in its indictment of the government of Mexico the charge that it "has failed to establish any public system of education, although possessed of almost boundless resources (the public domain), and although it is an axiom in political science that, unless a people are educated and enlightened, it is idle to expect the continuance of civil liberty or the capacity of self-government." In accordance with the doctrine thus proclaimed, the first Constitution of the Republic declares it to be the duty of Congress "to provide, as soon as circumstances will permit... a general system of education."

Attempts to establish a University of Texas were made by the Congress of the Republic and then by the state legislature in 1837, 1839, 1858, and 1866, but the times were unpropitious and the idea failed to become a reality. The Constitution of 1876 again called for the organization and maintenance of “a university of the first class to be located by a vote of the people of this state, and styled ‘The University of Texas,’ for the promotion of literature, and the arts and sciences, including an agricultural and mechanical department.” This constitution also established an endowment of one million acres of land in west Texas, which was increased in 1883 to two million acres. In 1881, the legislature again called for the organization and location of the University and for the appointment of a Board of Regents to be entrusted with its establishment and government. Among the provisions of the act were the limitation of the matriculation fee to \$30, the admission of men and women on equal terms without charge for tuition, and the injunction that no religious qualifications should be required for admission to any office or privilege connected with the University and that no sectarian instruction should be given therein.

By popular election in September 1881, the Main University was located at Austin and the Medical Branch, at Galveston. The academic and law departments were organized, and on September 15, 1883, the University was formally opened in the incomplete west wing of the old Main Building.

As the University grew, work in other fields was added to that offered by the academic and law departments. The College of Engineering was added in 1894; in 1906, the School of Education; in 1909, the Division of Extension; in 1910, the Graduate School; in 1922, the School of Business Administration; in 1924, the College of Physical Activities; in 1938, the College of Fine Arts; in 1948, the Graduate School of Library Science; in 1950, the Graduate School of Social Work; in 1951, the School of Architecture; in 1965, the School of Communication; in 1970, the Lyndon B. Johnson School of Public Affairs; in 1976, the School of Nursing; and in 2016, the Dell Medical School. The current organization of the University is described in [Organization of the University’s Academic Units](#) (p. 11).

Until 1895, the chair of the faculty was the chief executive officer of the University. Professor J. W. Mallet was chair for the opening year, 1883–1884; then Professor Leslie Waggener until the summer of 1894; then Professor Thomas S. Miller for 1894–1895. In 1895, the office of president was created, and has been filled as follows:

Leslie Waggener, MA, LLD (ad interim)	1895–1896
George Tayloe Winston, MA, LLD	1896–1899
William Lambdin Prather, BL, LLD	1899–1905
David Franklin Houston, MA, LLD	1905–1908
Sidney Edward Mezes, PhD, LLD	1908–1914
William James Battle, PhD, DCL, LLD (ad interim)	1914–1916
Robert Ernest Vinson, DD, LLD	1916–1923
William Seneca Sutton, MA, LLD (ad interim)	1923–1924
Walter Marshall William Splawn, PhD, LLD	1924–1927
Harry Yandell Benedict, PhD, LLD	1927–1937
John William Calhoun, MA, LLD (ad interim)	1937–1939
Homer Price Rainey, PhD, LLD	1939–1944
Theophilus Shickel Painter, PhD, DSc, LLD, MNAS (Acting President)	1944–1946

Theophilus Shickel Painter, PhD, DSc, LLD, MNAS	1946–1952
James Clay Dolley, PhD (Acting President)	1952
Logan Wilson, PhD, LLD	1953–1960
Harry Hunt Ransom, PhD, LittD, LLD, LHD	1960–1961
Harry Hunt Ransom, PhD, LittD, LLD, LHD (Acting President)	1961
Joseph Royall Smiley, PhD	1961–1963 <sup>1</sup>
Norman Hackerman, PhD	1967–1970
Bryce Jordan, PhD (ad interim)	1970–1971
Stephen H. Spurr, MF, PhD, DSc	1971–1974
Lorene Lane Rogers, PhD, DSc, FAIC (ad interim)	1974–1975
Lorene Lane Rogers, PhD, DSc, FAIC	1975–1979
Peter Tyrrell Flawn, PhD	1979–1985
William H. Cunningham, PhD	1985–1992
William S. Livingston, PhD (Acting President)	1992–1993
Robert M. Berdahl, PhD	1993–1997
Peter Tyrrell Flawn, PhD (ad interim)	1997–1998
Larry R. Faulkner, PhD	1998–2006
William Powers Jr., JD	2006–2015
Gregory L. Fenves, PhD	2015–2020
Jay C. Hartzell, PhD	2020–

1. From 1963 until 1967 there was no office of president.

## Government

The University of Texas System is governed by a board of nine regents, selected from different areas of the state, nominated by the governor, and appointed with the advice and consent of the senate. Additionally, the board includes a nonvoting student regent appointed by the governor upon recommendation of the chancellor of The University of Texas System. Subject to the supervision of the Board of Regents and the authority it has vested in administrative officers, the General Faculty play a major role in the governance of The University of Texas at Austin, as outlined in Regents Rule 40101. A complete statement of the duties of the officers and a description of the organization and authority of the General Faculty, the faculties of the colleges and schools, divisions, and departments, is published in the *Rules and Regulations* of the Board of Regents.

## Support

As a public institution, the University receives part of its income directly from the state. The state constitution prohibits any appropriation from the general revenue for the construction of buildings, but appropriations for equipment and operating expenses have been made by each legislature since 1889. An additional source of income is the Permanent University Fund, which consists of revenue from the two million acres of land in west Texas granted to the University and its branches in 1876 and 1883. The land has been leased since 1884 for grazing and other purposes; since oil production began there in 1923, income from mineral leases and royalties has also been added to the fund. Income earned by the Permanent University Fund is called the Available University Fund. One-third of the Available University Fund is dedicated to the support of the Texas A&M University System; two-thirds are dedicated to The

University of Texas System for operating expenses and permanent improvements.

Tuition paid by students is a third source of income, and the proceeds of endowment funds donated by individuals and organizations provide important additional support to research and teaching at the University.

Federal and other sponsored research funding provides an additional source of support crucial to the success of the University's mission on discovery.

## Buildings and Grounds

The grounds of the University consist of the original forty-acre campus just north of the state capitol and additional land acquired by gift and purchase. The main campus now covers more than 350 acres. Also part of the University are the J. J. Pickle Research Campus, a 476-acre tract eight miles north of the main campus that houses research organizations in engineering, science, and the social sciences; the Brackenridge tract, 445 acres bordering Lady Bird Lake where research is conducted in the life sciences; and the Montopolis Research Center, 94 acres located in southeast Austin. In addition, the University owns the Marine Science Institute at Port Aransas, the McDonald Observatory near Fort Davis, the Stengl–Lost Pines Biological Station near Smithville, the Winedale museum and conference center near Round Top, the Bee Cave Research Center west of Austin, the Lady Bird Johnson Wildflower Center in southwest Austin, the Sam Rayburn Library in Bonham, the John Nance Garner House and Museum in Uvalde, and J. Frank Dobie's ranch, Paisano.

Major buildings and other facilities are listed below.

## For Teaching, Research, and Administration

Aerospace Engineering Building	Formerly the North Office Building A; houses the Department of Aerospace Engineering and the Center for Aeromechanics Research
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Animal Resources Center

Art Building and Museum	Houses the Department of Art and Art History
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AT&T Executive Education and Conference Center	Houses classrooms and meeting facilities
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Battle Hall	Formerly the Old Library Building; renamed for William James Battle, former professor of classical languages and president ad interim of the University; houses part of the School of Architecture
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Batts Hall	Named for Judge R. L. Batts, former chair of the Board of Regents; houses the Department of Government
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Beauford H. Jester Center	Named for former governor of Texas and former member of the Board of Regents; houses classrooms, the John L. Warfield Center for African and African American Studies, and the Sanger Learning and Career Center
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Bellmont Hall	Named for L. Theo Belmont, former professor and director, Physical Training for Men; houses Intercollegiate Athletics for Men and Women, the Department of Kinesiology and Health Education, and the Department of African and African Diaspora Studies
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Belo Center for New Media	An expansion of the Moody College of Communication, named for gifts from the Belo Foundation and the Dealey, Decherd, and Moroney families; houses the dean's office, Student Advising and Career Services, the Stan Richards School of Advertising and Public Relations, the School of Journalism and Media, and the KUT Public Media Studios
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Benedict Hall	Named for former University president H. Y. Benedict; houses the Department of Spanish and Portuguese
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Bernard and Audre Rapoport Building	Formerly the Petroleum Engineering Building, then the Economics Building; renamed in 1998 for alumnus and benefactor Bernard Rapoport and his wife; houses the Department of Economics
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Biological Laboratories	Houses part of the School of Biological Sciences
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Biomedical Engineering Building	Houses the Department of Biomedical Engineering; provides research space for the Colleges of Natural Sciences and Pharmacy, and teaching labs for the School of Biological Sciences
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Blanton Museum of Art	Named for Jack S. Blanton, former chairman of Houston Endowment Inc.; houses more than 17,000 works of art and is comprised of the Mari and James A. Michner Gallery Building and the Edgar A. Smith Building.
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Burdine Hall	Named for John Alton Burdine, former dean of the College of Arts and Sciences and first vice president of the University; houses the Departments of Sociology and Germanic Studies
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Calhoun Hall	Named for former University president John William Calhoun; houses the Department of Linguistics, the Department of Slavic and Eurasian Studies, and the comparative literature program
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Chemical and Petroleum Engineering Building	Houses the John J. McKetta Jr. Department of Chemical Engineering and the Hildebrand Department of Petroleum and Geosystems Engineering
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College of Business Administration Building	Formerly the Business Administration–Economics Building; renamed in 1984
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Continuing Engineering Education	Houses the Center for Lifelong Engineering Education
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Health Learning Building	Houses the Dell Medical School
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Development Office Building	Houses the Development Office and the Charles A. Dana Center
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Dorothy L. Gebauer Building	Formerly the Engineering Building; renamed the Journalism Building, then the Speech Building; renamed in 1984 for former dean of women; houses the Office of the Dean of the College of Liberal Arts and the Center for Women's and Gender Studies
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E. P. Schoch Building	Formerly the Chemical Engineering Building; renamed for former professor of chemical engineering; houses part of the John A. and Katherine G. Jackson School of Geological Sciences
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E. William Doty Fine Arts Building	Formerly the Fine Arts Library and Administration Building; renamed in 1998 for first dean of the College of Fine Arts; houses the Office of the Dean of the College of Fine Arts	Jesse H. Jones Hall	Named for Houston philanthropist; houses part of the School of Law
Edgar A. Smith Building	Named for University alumnus and benefactor; houses the administrative, educational, and outreach activities of the Blanton Museum of Art	Joe C. Thompson Conference Center	Named for former member of the Board of Regents
Engineering Education and Research Center		John A. and Katherine G. Jackson Building	Named for alumnus and benefactor John A. Jackson and his wife; houses the Office of the Dean of the John A. and Katherine G. Jackson School of Geological Sciences
Engineering Teaching Center II	Houses the J. Mike Walker Department of Mechanical Engineering and the Texas Materials Institute	John B. Connally Center for the Administration of Justice	Named for alumnus and benefactor who was a member of the Board of Regents, governor of Texas, and United States secretary of the treasury; houses programs for advocacy and dispute resolution in the School of Law
Ernest Cockrell Jr. Hall	Named for an alumnus and benefactor of the College of Engineering; houses the Department of Civil, Architectural, and Environmental Engineering and the Office of the Dean of the Cockrell School of Engineering	John W. Hargis Hall	Formerly Building H of the Little Campus property (now the Heman Sweatt Campus); renamed in 1983 for former special assistant to the president of the University. Houses a research facility for the Steve Hicks School of Social Work.
F. Loren Winship Drama Building	Formerly the Drama Building; renamed in 1979 for former chair of the Department of Theatre and Dance	Laboratory Theatre Building	
Garrison Hall	Named for George P. Garrison, former professor of history	Lake Austin Centre	Located three miles west of the University; houses the Hogg Foundation for Mental Health and some units of the Division of Continuing and Innovative Education
Gates Dell Complex	Named for gifts from the Bill and Melinda Gates Foundation and the Michael and Susan Dell Foundation; houses the Artificial Intelligence Lab and the Department of Computer Science	Larry R. Faulkner Nano Science and Technology Building	Named for former University president; houses several affiliated programs for the promotion of nanoscience and nanotechnology
George I. Sánchez Building	Formerly the College of Education Building; renamed in 1994 for former professor of education; houses part of the College of Education and the College of Liberal Arts Departments of Air Force Science, Military Science, and Naval Science	Littlefield Home and Littlefield Carriage House	Houses part of the University Development Office
Goldsmith Hall	Formerly the Architecture Building; renamed in 1978 for former professor of architecture Goldwin Goldsmith; houses part of the School of Architecture	Louise and James Robert Moffett Molecular Biology Building	Named for alumni benefactors
Gordon-White Building	Formerly the Black and Latino Studies Building; renamed in 2015; before that formerly the Geography Building; renamed in 2014; and before that the Journalism Building; renamed in 1974; houses the African and African Diaspora Studies Department and the Department of Mexican American and Latina/o Studies	Lyndon B. Johnson Library	
Graduate School of Business Building		Main Building (Tower)	Located on the site of Old Main; houses University administrative offices
Harry Ransom Center	Formerly the Humanities Research Center; renamed in 1974 for University chancellor emeritus	Mari and James A. Michener Gallery Building	Named for the Pulitzer Prize-winning novelist and University benefactor, and his wife; provides gallery space for the Blanton Museum of Art
Hogg Memorial Auditorium	Named for former governor James S. Hogg and his son Will C. Hogg; houses facilities for Texas Performing Arts	Mary E. Gearing Hall	Formerly the Home Economics Building; renamed in 1976 for the first chair of the Department of Home Economics; houses part of the School of Human Ecology
Homer Rainey Hall	Formerly the Music Building; renamed in 1995 for former University president; houses the Department of French and Italian	Mezes Hall	Named for former University president Sidney E. Mezes; houses the Center for European Studies and the Schusterman Center for Jewish Studies
J. T. Patterson Laboratories Building	Named for former professor of zoology; houses part of the School of Biological Sciences	Music Building East and Music Building/Recital Hall	Houses the Kate Broocks Bates Recital Hall and the Office of the Director of the Sarah and Ernest Butler School of Music
Jesse H. Jones Communication Center	Formerly the Communication Building; renamed in 1981 for Houston philanthropist; houses the Moody College of Communication Departments of Speech, Language, and Hearing Sciences, Communications Studies, and Radio-Television-Film, and KLRU TV	Neural and Molecular Science Building	Houses classrooms, laboratories, and offices
		Norman Hackerman Building	Named for the late president of UT Austin and Rice University; houses parts of the School of Biological Sciences and the Department of Chemistry and Biochemistry
		Nursing School	

Parlin Hall	Formerly the English Building; renamed for Hanson Tufts Parlin, former professor of English and dean of the College of Arts and Sciences; houses the Department of English and the Department of Rhetoric and Writing	Texas Memorial Museum	Built to commemorate the centennial of the Republic of Texas in 1936; funded in part by the sale of centennial coins and a University student donation drive; serves as the exhibit hall for the Texas Natural Science Center
Patton Hall	Formerly known as the College of Liberal Arts Building; houses many College of Liberal Arts departments, programs, and centers; includes two dozen classrooms and auditoriums, offices for campus groups, and study spaces	Townes Hall	Named for Judge John Charles Townes; houses part of the School of Law
Performing Arts Center	Houses the Nancy Lee and Perry R. Bass Concert Hall and the Ralph H. and Ruth J. McCullough Theatre	University Teaching Center	
Perry-Castañeda Library	Named for Ervin S. Perry, former associate professor of civil engineering, and Carlos E. Castañeda, former professor of Latin American history	UT Administration Building	Houses the School of Information and part of the Department of Computer Science. Temporarily houses the Department of Electrical and Computer Engineering.
Peter O'Donnell Jr. Building	Houses facilities for research and graduate study in computer sciences, electrical and computer engineering, and computational sciences, engineering, and mathematics	Waggenger Hall	Named for the University's first president, Leslie Waggenger; houses the Departments of Classics and Philosophy
Peter T. Flawn Academic Center	Formerly the Undergraduate Library and Academic Center; renamed in 1985 for University president emeritus; houses part of the School of Undergraduate Studies	Walter Webb Hall	Named in 1975 for former professor of history; houses the Visitor Center, the Graduate and International Admissions Center, and the Office of Public Affairs
Pharmacy Building	Houses the College of Pharmacy	West Mall Office Building	Houses part of the School of Architecture, the Center for Mexican American Studies, the Department of Middle Eastern Studies, and the University Station Post Office
Robert A. Welch Hall	Formerly the Chemistry Building; renamed in 1974 for Houston philanthropist; houses the Department of Chemistry and Biochemistry	Will C. Hogg Building	Formerly the Geology Building; renamed for distinguished alumnus and benefactor; houses the Department of Asian Studies, the Plan II Honors Program, and the Office of the Dean of the College of Natural Sciences
Robert B. Rowling Hall	Named for Dallas businessman Robert B Rowling; houses the McCombs School of Business graduate programs	William C. Powers, Jr. Student Activity Center	Houses the Department of Anthropology and the Américo Paredes Center for Cultural Studies on the fourth and fifth levels
Physics, Math, and Astronomy Building	Formerly known as Robert Lee Moore Hall; renamed in 2020; before that formerly the Physics-Mathematics-Astronomy Building; renamed in 1974; houses the Departments of Astronomy, Mathematics, and Physics	William Randolph Hearst Building	Named for gifts from the Hearst Foundations; houses Texas Student Media
Sarah M. and Charles E. Seay Building	Named for alumni benefactors; houses the Department of Psychology and research facilities of the Department of Human Development and Family Sciences	<b>For Student Activities</b>	
School of Social Work Building	Formerly University Junior High School	Anna Hiss Gymnasium	Formerly Women's Gymnasium; renamed in 1974 for former director of Physical Training for Women
Sid Richardson Hall	Named for Texas philanthropist; houses the Lyndon B. Johnson School of Public Affairs, the Dolph Briscoe Center for American History, and the Teresa Lozano Long Institute of Latin American Studies	Clark Field	Named for Judge James Benjamin Clark, first proctor of the University
Student Services Building	Houses University Health Services, Counseling and Mental Health Center, Office of the Dean of Students, Office of the Ombudsperson, Legal Services for Students, Office of Financial Aid, Student Government, and the Senate of College Councils	Darrell K Royal-Texas Memorial Stadium	Formerly Texas Memorial Stadium; renamed in 1997 to honor former head football coach and athletics director
Sutton Hall	Named for William S. Sutton, former dean and professor of education; houses part of the School of Architecture	Denton A. Cooley Pavilion	Basketball practice and training facility; named for University alumnus and heart transplant pioneer
T. S. Painter Hall	Formerly the Physics Building; renamed in 1974 for former University president Theophilus Shickel Painter; houses parts of the Schools of Biological Sciences and Human Ecology, and parts of the Departments of Computer Science and Physics	Frank C. Erwin Jr. Special Events Center	Formerly the Special Events Center; renamed in 1981 for former chairman of the Board of Regents
		Frank Denius Practice Field	Named for alumnus and benefactor Franklin Wofford Denius
		Gregory Gymnasium	Named for former United States attorney general Thomas Watt Gregory; houses the Gregory Aquatics Facility and part of the Department of Recreational Sports
		Lee and Joe Jamail Texas Swimming Center	Named for alumni benefactors
		Mike A. Myers Track and Soccer Stadium	Named for alumnus benefactor

Moncrief-Neuhaus Athletic Center Named for alumni benefactors Vernon F. Neuhaus and W. A. "Tex" Moncrief; called the Neuhaus-Royal Athletic Center until the 1997 renaming of Memorial Stadium

Recreational Sports Center

Red and Charline McCombs Field Named for alumnus and benefactor Red McCombs and his wife

Richard Mithoff Track and Soccer Fieldhouse Named for University of Texas and School of Law alumnus

William C. Powers Jr. Student Activity Center Features a variety of unique, informal lounge spaces, four food vendors, and thirteen reservable spaces such as a black box theatre, a legislative assembly room, and a dance rehearsal space with a sprung floor.

Texas Union Building Houses dining areas, entertainment venues, meeting rooms for student organizations, reading rooms, banquet rooms, the Informal Classes program, and the Union Underground

UFCU Disch-Falk Field Named for former baseball coaches Billy Disch and Bibb Falk and for the sponsorship of the University Federal Credit Union

Whitaker Field Named for Berry M. Whitaker, former director of intramurals; located at 51st and Guadalupe streets

## Admission

A comprehensive college education depends on a robust exchange of ideas, exposure to differing cultures, preparing for the challenges of an increasingly diverse workforce, and acquiring competencies required of future leaders. The Office of Admissions recruits prospective undergraduate students, manages the admissions application process, and reviews applications in order to admit and enroll undergraduate students who are best able to contribute to, and benefit from, the University's rich, diverse, and challenging educational environment. Similarly, the Graduate and International Admissions Center (GIAC) manages the admissions application process and assists in the review of applications in order to admit and enroll international undergraduate students as well as all applicants to the University's many master's and doctoral programs.

The University receives a large number of applications and admits the number of students to whom it can offer a high-quality educational experience, including providing the resources needed for timely graduation. As a result, the University must often admit a limited number of applicants from among those who are qualified.

The procedures and criteria for admission given in this section are effective as of the date of publication but are subject to change by action of the Texas Legislature or the Board of Regents. The information here is intended for use by students applying for admission for the 2022–2023 academic year.

In compliance with the Federal Student Right-to-Know Act, information about [graduation rates](#) and [crime statistics](#) is available from the Office of Admissions.

Questions about undergraduate admission may be addressed to the Office of Admissions by telephone or by e-mail. The Office of Admissions may also be contacted by mail at The University of Texas at Austin, Office of Admissions, PO Box 8058, Austin, TX 78713-8058. Questions

about graduate admission should be directed to the [Graduate and International Admissions Center](#).

## Undergraduate Admission

The Office of Admissions is responsible for the admission and readmission of undergraduate students to the University. Application procedures for freshman, transfer, former, international, and transient (visiting summer) students are outlined later in this chapter and details are available on [Texas Admissions](#).

**Application deadlines.** For 2022-2023 undergraduate admission, application materials must be received in the Office of Admissions by the deadlines published on [Applying for Admission](#).

Prospective students are encouraged to apply early for the enrollment period in which they are interested. Beginning the process early allows ample time for applicants to assure that their applications are complete by the deadline.

	Summer Session 2022	Fall Semester 2022	Spring Semester 2023
US and international freshmen	December 1, 2021	December 1, 2021	October 1, 2022
US and international transfer students	March 1, 2022	March 1, 2022	October 1, 2022
Former students	May 1, 2022	July 1, 2022	December 1, 2022
Transient students	May 1, 2022	not applicable	not applicable

**Application processing fees.** A nonrefundable fee of \$75 is required with each application for domestic undergraduate admission. (The undergraduate fee for transient admission, admission for visiting summer students, is \$60.) Fee waivers based on financial need are available. International applicants (those who are not United States citizens or permanent residents) must submit a nonrefundable fee of \$90; waivers are not available for international applicants.

**Admission to requested majors.** Although Texas law offers automatic admission to the University for eligible undergraduate applicants, it does not guarantee admission to an applicant's requested major. All undergraduate applicants are considered on a competitive basis through holistic review for admission to the majors they request.

**Accepting admission.** Applicants who are offered undergraduate admission to the University must take steps to accept the offer of admission. To accept admission, admitted students must pay a \$200 enrollment deposit, which is applied to the payment of tuition when the student enrolls. Students who demonstrate financial need may qualify for assistance to cover the amount of the deposit. Enrollment deposits are not refundable.

**Major changes following acceptance of admission.** Undergraduate students are limited in their ability to [change majors](#) after accepting admission offers. Incoming undergraduates are not allowed to change majors from one college/school to another during summer or during orientation. Students interested in changing majors within their college/school should speak with an academic advisor about the requested change during orientation. Visit [Internal Transfer](#) for more information.

**Rescinding offers of admission.** The Office of Admissions has the authority to rescind an offer of admission to a student who, after being admitted to the University, fails to maintain the level of academic,

achievement, or honor code standards that were displayed in the information the student submitted when applying for admission to the University. Applicants who falsify any part of their application or the documents required to complete the application process are subject to cancellation of their offer of admissions or disciplinary action.

Students at the University are expected to conduct themselves in ways that reflect the University's [Student Honor Code](#) (p. 11).

**Scholarship recipients.** The executive director of admissions may admit recipients of bona fide scholarships.

**Submitted application items.** Official transcripts and test score reports submitted to the Office of Admissions will not be duplicated or returned to the student. Faxes of transcripts and applications are not accepted.

## Undergraduate Applicants with College Credit

Many undergraduate applicants come to the University after enrolling in college-level coursework or earning college credit.

**Reporting previous college coursework.** An applicant who has undertaken coursework at another collegiate institution (including freshman, transfer, reentry, and international applicants) must report all such coursework when applying for admission. Applicants who fail to report all college coursework or who otherwise falsify any part of their application or the documents required to complete the application process are subject to disciplinary action. Disciplinary action will include a one-year ban on enrollment and a permanent statement on the student's record about the failure or falsification. Action may include expulsion and loss of credit for work taken subsequently at the University, as well as appropriate action by the dean of students.

**Awarding college credit.** The University awards college credit to some incoming undergraduate students for courses that are transferable from other colleges and universities, for designated scores on Advanced Placement and International Baccalaureate exams, for OnRamps courses and for dual credit courses the student took while in high school.

Students seeking transferable credit must submit official transcripts of all coursework taken at all other institutions for evaluation by the Office of Admissions. This evaluation determines whether the coursework could in any circumstances qualify for transfer credit at UT Austin, but it does not constitute approval of the credit for use toward a degree; such approval is solely within the jurisdiction of a student's academic dean.

The following policies govern evaluation of credit:

- **Institution types:** Transfer credit is generally awarded for academic course credit earned from regionally accredited institutions or from institutions that are candidates for regional accreditation if the course credit was earned during the candidacy period. In rare circumstances, course credit earned at other institutions may be accepted.
- **Courses that are not transferable:** Workforce (vocational) courses, developmental and remedial courses, and courses classified as below freshman level by the institution at which the student took them are not transferable and will not count toward a degree.
- **Credit for military training:** Transfer credit is awarded for some kinds of military training. Credit awarded for military training usually does not count toward the 24 hours of transferable credit needed to apply for admission.
- **Coursework level:** Junior and community college courses transfer as lower-division (freshman or sophomore) credit. Undergraduate courses from senior colleges transfer at the level (lower- or upper-

division) at which the student took them. Graduate-level coursework is not transferable as undergraduate credit.

- **Limits on use of credit toward degree:** No limit is placed on the total amount of course credit accepted in transfer from either junior- or senior-level institutions. However, use of transfer credit toward a degree may be limited by the student's academic dean.
- **Credit by exam at another institution:** Credit earned by examination at another institution is treated as transfer credit only if the sending institution records the credit on the student's transcript with regular catalog course numbers and with a grade of at least C-, the symbol CR, or a similar designation representing credit earned without letter grade.
- **Computing an applicant's GPA:** When computing an applicant's grade point average (GPA) for admissions purposes, the Office of Admissions includes grades earned in all academic courses (except developmental courses), whether passed, failed, or repeated, including those in which the student earned a grade of D+, D, or D-. However, a course in which the student earned a grade of D+, D, D-, or F is not transferable and will not count toward a degree. An A or A+ earned on transferable coursework is awarded four points in admission GPA calculations. (See [Academic Policies and Procedures](#) (p. 53) for information about how the University computes GPA.)
- **Transfer coursework and the University's GPA:** Grades earned at other institutions are not averaged with grades earned at the University to determine the student's internal University grade point average.

**Disputed credit:** If the University refuses to accept lower-division credit earned at another Texas public institution of higher education, the student and the sending institution will be given written notice that transfer credit was refused. If nontransfer of credit is disputed, the University will attempt to resolve the matter with the student and the sending institution according to applicable rules and guidelines of the Texas Higher Education Coordinating Board. If the dispute is not resolved to the student's or the sending institution's satisfaction within forty-five days of the initial notification, the University will notify the Coordinating Board of the refusal of the transfer credit and the reasons for refusal. The Coordinating Board will resolve the dispute and notify the parties of its findings.

### College credit for earning an International Baccalaureate diploma.

Students who are admitted to the University and have earned an International Baccalaureate (IB) diploma during high school may qualify for 24 hours of college credit. Details about the program are available from [Student Testing Services](#).

**College credit for military service.** Military veterans who enroll as entering undergraduates (freshman, transfer, or returning students) at UT Austin and meet certain requirements are eligible to receive up to 12 semester hours of undergraduate elective coursework credit for the time they spent in the service. Eligibility requirements are defined in [Section 51.3042 of the Texas Education Code](#).

The credit is awarded for having served, not for any college-level courses that the veteran may have taken while in the military. To be eligible to receive credit for military service, a veteran must

- Have graduated from a public or private high school accredited by a generally recognized accrediting organization or from a high school operated by the United States Department of Defense.
- Have completed at least two years of service in the armed services (unless the veteran was discharged because of a disability).
- Have been honorably discharged from the armed forces.

Admitted students who may qualify for credit for military service should speak with a representative of the Office of Admissions upon enrollment at the University.

## Recruiting Students for Undergraduate Admission

The Office of Admissions offers a variety of services and resources to assist prospective students with the undergraduate admissions application process. Undergraduate applicants are encouraged to use all available resources, especially consultation with the University's admissions representatives and counselors.

Admissions representatives work in communities throughout the state of Texas. The University's admissions representatives provide detailed information about, and assistance with, the freshman and transfer admissions and enrollment processes through consultation, information sessions, and local events.

The Office of Admissions participates in a variety of activities and efforts designed to recruit prospective freshman and transfer students.

- Collaborating with high school counselors in Texas and in other states and with junior and community college officers across the state.
- Hosting counseling and information sessions and conducting campus tours for prospective freshman and transfer students.
- Hosting meetings with representatives from UT Austin admissions, student affairs, and academic affairs offices for prospective transfer students visiting the campus.
- Hosting on-campus events for prospective freshman and transfer students.
- Participating in community college recruiting events across the state and visiting community colleges and business and industry locations to provide information for prospective transfer students.
- Participating in college nights and college fairs across the state and the nation to provide information to prospective freshman and transfer students.
- Working with academic and student affairs offices and departments across campus to assist students in their transition to UT Austin.
- Working with alumni and outreach centers across the state and nation to facilitate student recruiting through information distribution, events, and activities.

## Freshman Admission

Freshman applicants should take advantage of the detailed information and resources available through [Texas Admissions - Freshman](#).

## Eligibility to Apply

To be eligible to apply for freshman admission, an applicant must:

- Have graduated or be on track to graduate from high school or receive a GED and
- Not have enrolled in another college or university after graduating from high school or earning a GED.

To be eligible to apply for freshman admission, a Texas public high school applicant must also be on track to graduate under the high school coursework requirements defined in the state's [Uniform Admission Policy](#). Texas private high school applicants and applicants from Department of Defense schools must be on track to complete coursework that is equal in content and rigor to the requirements in

the Uniform Admission Policy. See Admission Decisions below for information about requirements for automatic admission.

No student is exempt from the University's minimum coursework requirements: four units of language arts, two units of a single foreign language, three units of mathematics at the level of Algebra I or higher, two units of science, three units of social studies, one and one-half units of electives, and one-half unit of fine arts. (Computer science/programming courses may be used to fulfill the admissions foreign language requirement.)

Meeting the minimum requirements makes a student eligible to apply for admission, but exceeding the minimum is often necessary for applicants to be competitive for admission to many of the University's academic programs.

Under Texas law, graduates of unaccredited high schools may seek admission to the University.

## Admission Deficiencies

Some applicants may be required to complete the University's deficiency process in order to meet UT Austin's minimum coursework requirements. Applicants who appear to be deficient after applying for admission are notified by the Office of Admissions that they must submit additional information through an online process. Notified students who fail to complete the deficiency process will not be considered for admission.

Admitted students must complete the coursework required to remove a deficiency before they enroll at the University. A deficiency in foreign language must be removed by achieving first-year college-level credit in a foreign or classical language, by earning a passing score on the appropriate placement examination given by the University, or by taking computer science/programming coursework, when applicable. A deficiency in mathematics must be removed by earning credit for Mathematics 301, *College Algebra*, or Mathematics 303D, *Applicable Mathematics*, or an equivalent transfer course. For all other subjects, one semester of college credit is required to remove a deficiency of one year or less of high school credit.

## Freshman Application Procedures

To be considered for admission as a freshman, an applicant must submit all required items by the deadline published on [Texas Admissions](#).

1. **Application.** A completed [Freshman application](#).
2. **Transcript and rank.** An official high school transcript showing coursework information through the end of the junior year along with information about the applicant's class rank and high school class size (usually noted on the transcript). If your high school does not rank students, provide a statement from your school describing its policy, a copy of your school's profile, and a GPA or grade distribution report.
3. **High school coursework or exemption information.** Documentation showing that the applicant is on track to meet high school coursework requirements or is requesting an exemption to meet the state's Uniform Admissions Policy; applicants who claim an exemption based on equivalent coursework must submit a certification/exemption form as described above.
4. **Test score.** An official test score report for the SAT Reasoning Test or the ACT Assessment. Scores must be sent directly from the testing agency to be considered official. For the 2022-2023 application, this requirement is suspended. More information may be found on [Texas Admissions-Freshman](#).
5. **Fee or waiver request.** The application processing fee or a request for a fee waiver.

**Additional requirements for some applicants.** In addition to the items required of all applicants, some applicants are required to submit additional items. Some applicants, for example, may be required to submit the online Student Information Form to provide details about high school coursework. In addition, international freshman applicants must submit Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores as well as evidence of sufficient financial support while studying in the United States. In addition, some majors require applicants to submit [major-specific application requirements](#) (p. 23).

Additional information about applying for freshman admission, including details about reporting rank, high school coursework requirements, and testing requirements, is available on [Texas Admissions - Freshman](#).

**Keeping prospective students informed:** In accordance with the admissions policy adopted by the University of Texas System Board of Regents, the Office of Admissions works diligently to keep students informed about items needed to complete an admissions application and about the status of their individual applications throughout the process. MyStatus – a secure online portal for UT Austin applicants – provides detailed information about application status (incomplete, complete, in review, etc.) and about items needed to complete an application for admission. The Office of Admissions also notifies applicants by email of the need to visit MyStatus for application information.

**Reporting dual credit.** A freshman applicant may not disregard any part of their academic record, including college credit earned as dual credit. Such coursework must be reported when applying for admission, and the applicant must submit official transcripts of the coursework.

## Freshman Application Review Process

In keeping with the admissions policy adopted by the University of Texas System Board of Regents, the Office of Admissions uses an individualized, holistic review process to consider each completed freshman application. Annual file review training is conducted to assure that files are reviewed consistently and fairly based on admission criteria.

Applications from students who qualify for automatic admission are reviewed to determine majors. Applications from students who are not eligible for automatic admission are reviewed to determine admissibility and to make decisions about majors.

The following items are considered during holistic review:

1. Class rank
2. Strength of academic background
3. SAT Reasoning Test or ACT scores
4. Record of achievements, honors, and awards
5. Special accomplishments, work, and service both in and out of school
6. Essay(s) and required short answers
7. Special circumstances that put the applicant's academic achievements into context, including the applicant's socioeconomic status, experience in a single parent home, family responsibilities, experience overcoming adversity, cultural background, race and ethnicity, the language spoken in the applicant's home, and other information in the applicant's file
8. Recommendations (although not required)
9. Competitiveness of the major to which the student applies

No specific class rank, test score, or other qualification by itself—other than automatic admission based on section 51.803 of the Texas

Education Code or admission for top students from small Texas high school graduating classes—ensures admission.

Admission decisions are made on the basis of the information submitted as part of the student's application. Applicants who believe that supplemental items will help convey information about their qualifications are encouraged to submit such items with their applications. Supplemental items often included with applications are expanded résumés of accomplishments and extracurricular activities, letters of recommendation, and letters addressing an applicant's special circumstances.

## Admission Decisions

The Office of Admissions uses an individualized, holistic review process to consider each completed freshman application. Applications from students who do not qualify for automatic admission are reviewed to determine which students will be offered admission and to determine majors for those offered admission. Applications from students who do qualify for automatic admission are reviewed to make decisions about majors.

**Texas applicants eligible for automatic admission.** Section 51.803 of the Texas Education Code defines the rules that govern automatic admission to Texas universities. Under these rules, the University is required to use automatic admission to fill at least 75 percent of the spaces available to Texas residents in each admitted freshman class.

Each September, the University informs school districts of the rank that will be required to earn automatic admission to the University in the next application cycle. On September 16, 2020, the University notified school districts that it will automatically admit students in the top 6 percent of their high school classes to summer/fall 2022 and to spring 2023.

In addition to graduating under the coursework requirements found in the state's [Uniform Admission Policy](#), to be eligible for automatic admission, applicants from Texas public high schools must complete the Foundation High School Program with the Distinguished Level of Achievement. High school coursework exemptions are available for applicants who may be eligible for automatic admission and who attend private high schools in Texas or Department of Defense high schools. Available exemptions are based on achieving certain benchmarks on either the SAT or the ACT or completing high school coursework that is equal in content and rigor to the state's high school graduation requirements.

In order for a student to qualify for automatic admission, the high school must report the student's rank as prescribed by section 51.803 of the Texas Education Code.

To be considered for admission to the Cockrell School of Engineering, the Jackson School of Geosciences, and the Environmental Science major in the College of Liberal Arts and the College of Natural Sciences, applicants who are otherwise eligible for automatic admission to the University should meet the calculus-readiness requirement. To be considered for admission to other math-intensive majors (mathematics, business, physics, or computer science), an applicant who is otherwise eligible for automatic admission to the University should demonstrate math proficiency.

**Automatic admission for military/veteran applicants.** Students who qualify for automatic admission to UT Austin at the time they graduate from high school and who join the military after graduation maintain eligibility for automatic admission for the period of time they serve in the military. Military or veteran applicants interested in enrolling at UT Austin following military service who have not enrolled in college-level coursework since high school graduation should apply for freshman

admission. Such applicants are reviewed holistically with the freshman applicant pool to determine the major to which they will be offered admission. Qualified applicants who have enrolled in college-level coursework since high school graduation should apply for [transfer admission](#) (p. 21).

**Applicants not eligible for automatic admission.** To be considered for freshman admission, applicants who are not eligible for consideration under the provisions of section 51.803 of the Texas Education Code must normally have graduated from or be on track to graduate from high school and have met the high school preparation requirements.

As a state-assisted institution, the University reserves 90 percent of its spaces for Texas residents per Texas law; 10 percent of the spaces are reserved for out-of-state and international students.

**Notifying applicants of admission decisions.** In keeping with the admissions policy adopted by the University of Texas System Board of Regents, the Office of Admissions notifies freshman applicants of their admission decisions as soon as possible. Summer/fall applicants who qualify for automatic admission are notified of their admissibility soon after their applications are complete. Decisions about majors for automatically admissible students and decisions about admission and majors for applicants who are not automatically admissible are made and delivered beginning in the fall. All freshman admissions decisions for summer/fall are communicated by the spring before the entry semester. The Office of Admissions also works to deliver spring decisions in a timely manner.

**Alternative paths to admission.** The University works to identify and develop alternative admission programs that offer prospective students a clear path to completion of an undergraduate degree at the University. These programs include: Path to Admission through Co-Enrollment (PACE), a co-enrollment program with Austin Community College, and the Coordinated Admission Program (CAP), a University of Texas System program through which students enroll in a UT System university during their freshman year and then transfer to UT Austin—after successfully completing the program requirements—in order to complete their undergraduate studies.

Information about PACE requirements for the 2021-2022 academic year are available on [Texas Admissions - Freshman](#). Information about CAP requirements for the 2021-2022 academic year is available on [Texas Admissions - Freshman](#).

## Transfer Admission

Prospective transfer applicants should take advantage of the detailed information and resources available on [Texas Admissions - Transfer](#).

### Eligibility to Apply

In most circumstances to be eligible for transfer admission consideration, an applicant must:

1. Have graduated from high school or earned a GED
2. Have enrolled in an institution of higher education following high school graduation or receipt of the GED
3. Have earned 24 semester hours of transferable coursework at another college of university

While 30 semester hours of transfer credit is recommended for transfer applicants, students with at least 24 hours of credit will be considered based on the strength of their application and available spaces in the incoming class. In exceptional circumstances, students with fewer than 24 semester hours of credit may be considered for transfer admission under special review by appeal to the Executive Director of Admissions.

**Ineligible at other institutions.** An applicant who is ineligible to continue at a previous institution for academic or disciplinary reasons is not eligible for admission to the University. There is no probationary or provisional admission for transfer applicants.

**Degree holders.** Students who have obtained a degree at another college or university but are interested in working toward an undergraduate degree at UT Austin must apply for undergraduate transfer admission in the same way as students who have not yet earned a degree.

**Former CAP and PACE participants.** Students who participated in the Coordinated Admission Program (CAP) or Path to Admission through Co-Enrollment (PACE) but did not complete the requirements or decided not to enroll at UT Austin despite successful completion of the requirements must apply for transfer admission if interested in attending UT Austin at a later date.

**Additional situations requiring application for transfer.** UT Austin graduate students who are interested in taking undergraduate courses but who have never attended UT Austin as an undergraduate must apply for undergraduate transfer admission. The same is true for students who have taken only correspondence or extension courses at UT Austin as well as students who have taken only summer courses when enrolled as a visiting transient student.

## Transfer Application Procedures

To be considered for transfer admission, an applicant must submit the items listed below by the application [deadline](#). Official transcripts and test score reports submitted to the Office of Admissions will not be duplicated or returned to the student. Faxes of transcripts and applications are not accepted.

1. **Application and essays:** A completed [Transfer application](#), including the required essays and statement of purpose.
2. **Transcripts:** Separate, official transcripts from each college attended, including any at which the applicant enrolled while in high school. Every college-level course the student took must be reported on a transcript from the institution at which the student enrolled in the course, even if it also appears on the transcript of another institution that accepted it for transfer credit. Summer and fall applicants must submit official transcripts of all coursework undertaken through the previous fall; spring applicants must submit official transcripts of all coursework undertaken through the previous summer.
3. **Fee (or exemption request):** The nonrefundable application fee or a request for an exemption, described in the section [Application Processing Fee](#) (p. 17).
4. **Résumé:** An expanded résumé that provides information about the applicant's previous five years of academic, extracurricular, community, and work activities, honors, and awards.

The following items are required for some applicants:

1. Permanent resident alien applicants must submit a photocopy of the front of the permanent resident card or temporary evidence of I-551 in the passport.
2. Transfer applicants (including United States citizens and permanent residents) who have undertaken a significant amount of their college coursework in a country in which English is not the only language spoken must show proficiency in English by presenting a score on either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Details about possible exemptions are available on [Texas Admissions - Transfer](#).
3. International transfer applicants must submit evidence of sufficient financial support while studying in the United States.

**Required for enrollment.** Before enrolling at the University, admitted transfer students must submit an official high school transcript. The transcript is used to verify completion of the units in foreign language and mathematics that are requirements of many university degrees. Although the high school transcript is not required for admission, applicants are strongly encouraged to submit it with other admissions credentials by the deadline.

**Automatic admission for eligible transfer applicants.** Section 51.8035 of the Texas Education Code establishes criteria for automatic admission to the University for qualifying transfer applicants who began their studies at a Texas community or junior college following high school graduation. Visit [Automatic Transfer Admission](#) for details.

**Automatic admission for military/veteran applicants.** Students who qualify for automatic admission to UT Austin at the time they graduate from high school and who join the military after graduation maintain eligibility for automatic admission for the period of time they serve in the military. Qualified military or veteran applicants interested in enrolling at UT Austin following military service who have enrolled in any college-level coursework since high school graduation should apply for transfer admission. UT Austin waives the 24 semester-hour transfer coursework requirement for qualified military/veteran applicants. Such applicants are reviewed holistically with the transfer applicant pool to determine the major to which they will be offered admission. Applicants who have not enrolled in college-level coursework since high school graduation should apply for [freshman admission](#) (p. 19).

## Transfer Application Review Process

All applications for transfer admission are reviewed and evaluated individually and holistically. Admission decisions are made after careful consideration of the strength of the applicant's academic background; their record of achievement and accomplishment, both in and outside of the classroom; and related factors reported by the applicant in writing.

The Office of Admissions considers the following items when looking for evidence of a strong academic background:

1. Substantial coursework from a challenging academic institution or program
2. Evidence of relevant coursework and experiences related to requested field of study
3. Required and appropriate courses for specific areas of study
4. Evidence of a positive academic trend

The following items form the basis for evaluating an applicant's record of achievement and accomplishment:

1. Indications of a superior level of achievement in a particular area, or particular attributes that would be an asset to a department or college
2. Letters from deans, department chairs, or faculty members that attest to the applicant's qualifications for their respective programs
3. Information on a personal résumé that attests to the applicant's skills, abilities, experiences, or background
4. Performance at an audition or the quality of a portfolio, when required for the applicant's proposed major
5. Scores on the Test of English as a Foreign Language or the International English Language Testing System, when required
6. Other special circumstances, including socioeconomic standing; educational goals; cultural background; employment, internships, etc.; race or ethnicity; personal experiences and hardships; personal responsibilities; and any additional information submitted by the applicant

Enrollment pressures at the University may not permit admission of all who qualify for certain academic programs. When this occurs, the Office of Admissions, within applicable law, admits those students who are judged to be most able to contribute to and benefit from the University's rich, diverse, and academically challenging environment. Additional admissions requirements for some undergraduate programs are described in [Major-Specific Application Requirements](#) (p. 23).

**Grade point average computation.** A transfer applicant's grade point average on transferable college coursework is a significant indicator of the applicant's academic strength. Because the Office of Admissions considers academic background as a factor when making transfer decisions, the grade point average can play an important role in an applicant's final admission decision.

The admission grade point average (GPA) is computed on all transferable college coursework the student has undertaken, whether passed, failed, or repeated. The Office of Admissions uses the University's numerical equivalents as described in [Academic Policies and Procedures](#) (p. 53) when computing GPA for transferable coursework.

- GPA is computed by dividing the total number of grade points by the total number of semester hours pursued. (Credit hours and grade points earned on the quarter system carry 2/3, or .66, the numerical value of those on the semester system.)
- Transfer credit is not given for courses in which incoming students have earned a grade of *D+*, *D*, *D-*, or *F*. However, if such courses would normally be eligible for transfer, they are included when GPA is calculated.
- During transfer GPA calculations, an *A* or *A+* earned on transferable coursework is awarded four points.
- Each instance in which a course is taken is counted when GPA is computed. For example, a course that a student takes twice in an effort to raise a grade is counted twice when the GPA is computed. However, transfer credit for a repeated course is counted only once.

**Transfer and evaluation of credit.** Applicants for transfer admission must submit official transcripts of all coursework taken at all other institutions for evaluation by the Office of Admissions. This evaluation determines whether the coursework could in any circumstance qualify for transfer credit at the University, but it does not constitute approval of the credit for use toward a degree; such approval is solely within the jurisdiction of a student's academic dean.

Additional information about evaluation of credit is available in [Undergraduate Applicants with College Credit](#) (p. 18).

**Catalog eligibility for Texas transfer students.** A student who transfers from another Texas public institution of higher education has the same catalog choices that the student would have had if the dates of attendance at the University had been the same as the dates of attendance at the other institution. However, the student's choice of major may affect whether or not transferable coursework may be counted toward a degree. Rules about catalog choice are given in the undergraduate catalog in the section [Graduation Under a Particular Catalog](#).

**Coursework-in-residence requirement.** Candidates for all undergraduate degrees must complete at least 60 semester hours of coursework in residence at the University. A transfer student who has completed a substantial amount of transferable, degree-applicable coursework may be obliged to take more courses at the University than their degree program requires, in order to meet the residence requirement. Students considering transfer after earning more than 60 hours of transferable credit should carefully review their options and the possible ramifications of the coursework-in-residence requirement before transferring. For

more information, review the Non-Resident Tuition for Resident Students policy.

## Transient Admission (Summer Only)

Undergraduate students who are pursuing degrees at other U.S. colleges and universities and wish to continue their studies at the University during the summer only may be admitted to some undergraduate programs as visiting transient students. A transient student who then wishes to be admitted to the University on a regular basis must apply for admission as a transfer student.

Visiting transient students may not register in the Graduate School but may take graduate courses if qualified. If a visiting transient student is subsequently admitted to the University as a regular student, credit earned while enrolled as a transient student may be used to meet undergraduate degree requirements but may not be used to fulfill the requirements for a graduate degree.

Students who attend the University as transient students and then are admitted on a regular basis are immediately subject to the University's academic regulations. In particular, such a student will be placed on scholastic probation upon enrollment if their grade point average for work undertaken as a transient student at the University is below 2.00.

## Fresh Start

Section 51.931 of the Texas Education Code provides that a resident of Texas may apply for admission to the University as an undergraduate student without consideration of course credit or grades earned 10 or more years prior to the semester the applicant plans to enroll. To be admitted, the applicant must meet the admission standards in effect at the time of application. Students admitted under fresh start receive no credit for coursework taken 10 or more years before enrollment, even if a degree was earned.

Fresh start applicants must apply for transfer admission (or readmission if they attended UT Austin in the past), must submit transcripts for all college-level coursework taken and all required application items by the transfer deadline, and must have the minimum number of transferable courses.

## Enrollment as a Nondegree Student

A student who holds a bachelor's degree from an accredited institution, including UT Austin, may apply for admission as a nondegree student in one of the undergraduate colleges or schools. Students seeking nondegree admission follow the process for undergraduate transfer applicants and are considered on a competitive basis with transfer applicants for the same semester. Some undergraduate majors are not open to nondegree students; applicants must select from available nondegree majors.

Nondegree students are subject to the rules that apply to other undergraduates. With the approval of the Office of Admissions and the dean's office of the applicable college or school, nondegree students may change to degree-seeking status in an undergraduate college or school. Such students must meet the criteria required of all transfer applicants.

With the approval of the instructor and the graduate advisor, a nondegree student may take any graduate course for which they meet the prerequisite. However, graduate courses that a student takes while enrolled as an undergraduate nondegree student may not later be counted toward a graduate degree.

**Exchange students.** A student who is admitted to the University through a reciprocal exchange program is also classified as a nondegree student.

An exchange student may not register for more than two long-session semesters and one summer session. The transferability of academic credit to the student's home institution is determined by the home institution.

An exchange student may later apply for admission to the University as a degree-seeking student, but only after completion of the exchange period. If the student is admitted as a degree-seeker, credit that they earned as an exchange student may be counted toward a university degree only on a limited basis and only with the approval of the student's dean.

## Major-Specific Application Requirements

To be considered for admission to some undergraduate majors, applicants must submit additional information or meet additional requirements beyond those for applying to the University. Applicants who complete the University's undergraduate application requirements but fail to submit these additional items or to meet these major-specific requirements may be considered for admission to other undergraduate majors based on academic interest and space availability. Undergraduate applicants may select both a first-choice and a second-choice major when applying for admission; however, preference may be given to first-choice applicants.

**Foreign language requirement:** UT Austin undergraduate students are expected to have completed two years of a single foreign language in high school. Applicants who meet the University's foreign language high school coursework requirement with computer science coursework may be required to earn credit at the beginning level proficiency in a single foreign language to complete their undergraduate degree requirements. See [Foreign Language](#) in the Undergraduate Catalog.

The list below offers an overview of major-specific requirements. Additional information is available on [Texas Admissions](#) and to individual applicants through MyStatus, the University's secure admissions portal.

## Architecture

### Freshman Requirements

- **Fall-only admission:** Entering students must begin their studies in a fall semester
- **Short answer question:** Submit response to major specific short answer question

### Transfer Requirements

- **Essay D:** Submit a response to Essay D
- **Portfolio and letter of recommendation:** Submit online portfolio and one letter of recommendation
- **Minimum 3.25 grade point average:** Applicants must have a minimum 3.25 grade point average on transferable coursework
- **Fall-only admission:** Entering students must begin their studies in a fall semester
- **Transfer from architecture/interior design programs:** Submit transfer credit from architecture or interior design programs

## Business

### Freshman Requirements

- **Fall admission:** Entering business students must begin their studies in a fall semester; summer admission may be possible
- **Canfield Business Honors Program:** Admission to the Canfield Business Honors Program requires completion of an additional application, criteria, and acceptance by the Canfield Business Honors Program

## Transfer Requirements

- **Fall-only admission:** Entering business students must begin their studies in a fall semester
- **Business indicator courses:** Submit official transcripts showing the following business indicator courses:
  - Calculus I
  - Calculus II
  - Microeconomics
  - Macroeconomics
- **Foreign language proficiency:** Before enrolling, admitted transfer students must verify completion of two years of a single foreign language in high school or one year of a single foreign language in college.

## Communication

### Freshman Requirements

- **Fall-only admission:** Entering students must begin their studies in a fall semester

### Transfer Requirements

- **Fall-only admission:** Entering students must begin their studies in a fall semester (nondegree seekers may apply to speech, language, and hearing sciences for the spring semester)

## Education

### Transfer Requirements

- **Essay:** Submit an essay response that focuses on how the intended major aligns with the student's educational/career goals
- **Teacher certification:** Non-degree seekers planning to begin professional development classes in the fall semester should complete the application to the professional development sequence as part of the admissions application process.

## Engineering

### Freshman Requirements

- **Calculus readiness requirement:** To be considered for admission to the Cockrell School of Engineering, students must be calculus ready.
- **Summer/Fall admission:** Entering students must begin their studies in a summer or a fall semester
- **Engineering Honors Program:** Admission to the Engineering Honors Program requires the completion of an additional application

### Transfer Requirements

- **Transfer credit for the following coursework:**
  - Mathematics 408L, 408M, or 408D
  - Physics 303K and 103M
  - A minimum of four technical courses. Technical courses include courses in math, physics, biology, chemistry, geology, computer science, and engineering.
- **Fall admission:** Entering students must begin their studies in a fall semester

## Fine Arts

### Freshman Requirements

**Fall-only admission:** Entering students in all majors must begin their studies in a fall semester.

- **Art history majors:**
  - Submit response to major specific short answer question
- **Studio art, design, and visual art studies majors:**

- Submit art portfolio

- **Music majors:**
  - Submit additional Butler School of Music application
  - Submit letters of recommendation
  - Complete an audition for the Butler School
- **Department of Theatre and Dance majors:**
  - Submit departmental application
  - Complete additional steps such as audition or interview

### Transfer Requirements

**Fall-only admission:** Entering students in all majors must begin their studies in a fall semester.

- **Art history majors:**
  - Submit Essay D
- **Design majors:**
  - Submit art portfolio
- **Studio art and visual art studies majors:**
  - Submit Essay D
  - Submit art portfolio
- **Music majors:**
  - Submit additional Butler School of Music application
  - Submit letters of recommendation
  - Complete an audition for the Butler School
- **Department of Theatre and Dance majors:**
  - Submit Essay D
  - Submit departmental application
  - Complete additional steps such as audition or interview
  - Submit resume to the department

## Geosciences

### Freshman Requirements

- **Calculus readiness requirement:** To be considered for admission to the Jackson School of Geosciences, students must be calculus ready
- **Fall-only admission:** Entering students must begin their studies in a fall semester

### Transfer Requirements

- **Transfer credit for the following coursework:**
  - Chemistry 301
  - Geological Sciences 401 or 303
  - Mathematics 408C, or 408K, or equivalent
- Additional required coursework for Environmental Science (geological sciences)
  - Biology 311C
- **Fall-only admission:** Entering students must begin their studies in a fall semester

### Transfer Recommendations

- **Transfer credit for the following coursework:**
  - Mathematics 408L and 408M, 408D, or equivalent
  - Geological Sciences 401 or 303 with a grade of at least B-

## Liberal Arts

### Freshman Requirements

- **Honors programs:** Plan II and Liberal Arts Honors applicants must complete the online Honors Program application and submit the additional materials.

- **Environmental Science (geographical sciences):** To be considered for admission to environmental science, students must be [calculus ready](#)
- **Fall-only admission:** Plan II and environmental science students must begin their studies in a fall semester

### Transfer Requirements

- **Plan II:** The Plan II major is not currently available to transfer applicants.
- **Undeclared:** The Undeclared major in Liberal Arts is not available to transfer applicants.
- **Environmental science (geographical sciences):**
  - Transfer credit for Biology 311C, Chemistry 301, and Mathematics 408C, 408K, or 408N with a grade of at least C- in each
  - Transfer credit for Geological Sciences 401 or 303 with a grade of at least B-

## Natural Sciences

### Freshman Requirements

- **Honors programs:** Natural sciences honors program applicants must complete the online Honors Program application and submit the additional materials
- **Environmental science (biological sciences):** To be considered for admission to environmental science, students must be [calculus ready](#)
- **Fall-only admission:** Environmental science students must begin their studies in a fall semester

### Transfer Requirements

- **Fall-only admission:** Computer science and environmental science students must begin their studies in a fall semester.
- **Undeclared:** The Undeclared major in Natural Sciences is not available to transfer applicants.
- **Environmental science (biological sciences):**
  - Transfer credit for Biology 311C, Chemistry 301, and Mathematics 408C, 408K, or 408N with a grade of at least a C- in each
  - Transfer credit for Geological Sciences 401 or 303 with a grade of at least B-

### Transfer Recommendations (to be competitive for all natural sciences majors):

- **Minimum of 30 transferable semester hours**
- **GPA in math and science:** Minimum grade point average of 3.00 in mathematics and science coursework is preferred for consideration. A GPA above 3.00, however, is generally needed to be competitive for admission.
- **First-choice major:** Preference is given to applicants who select a Natural Sciences major as their first-choice major and who have transfer credit for at least one college-level calculus course.
- **Transfer credit:** One of the following (with a grade of at least B-)
  - Mathematics 408C, 408D, 408K, 408L, 408M, 408N, or 408S
  - Statistics and Data Sciences 301
- **Transfer credit:** Two of the following courses (with a grade of at least B-)
  - Biology 311C, 311D
  - Chemistry 301, 302
  - Computer Science 311, 312

- Physics 303K, 303L
- or majors level equivalents
- **Essay A:** Submit Essay A describing how the intended major would impact achievement of the student's educational and career goals

## Nursing

### Freshman Requirements

- **Fall-only admission:** Entering students must begin their studies in a fall semester
- **Short answer questions:** Submit responses to major specific short answer questions

### Transfer Requirements

- **Fall-only admission:** Entering students must begin their studies in a fall semester
- **Essay A:** Submit Essay A with a focus on goals of becoming a nurse and/or a career in nursing
- **Recommended GPA:** To be competitive, applicants should have a minimum 3.5 transfer GPA
- **24 hours by deadline:** Submit transcript showing 24 hours of completed coursework by the application deadline.
- **Transfer credit:** Submit transfer credit for the following:
  - Chemistry 301, Statistics and Data Sciences 301, and Biology 311C
- **Additional documents:** [Additional documents](#) may be required for applicants with an associate's degree in nursing

## Pharmacy

Admission to the College of Pharmacy is not available to freshman applicants

### Transfer Applicants

- **Pharm CAS Application:** Apply to the professional pharmacy program (PharmD) by completing the PharmCAS application and the College of Pharmacy Supplemental Application

## Social Work

### Freshman Requirements

- **Short answer question:** Submit response to major specific short answer question

### Transfer Requirements

- **Essay:** Submit Essay A or E with a focus on how social work would prepare a student to achieve education and career goals.

## Undergraduate Studies

There are no additional application requirements or recommendations for applicants to undergraduate studies. Only freshman applicants may apply to the undeclared major in the School of Undergraduate Studies.

**Admission to upper-division work and requirements for continuing study:** Some undergraduate academic programs admit new students as undeclared or entry-level majors within a college or school. In such cases, students must meet certain requirements—earn a certain grade point average in specified coursework, for example—to move into upper-level study. In some cases, students must apply for admission to a concentration or to a professional program after meeting the specified requirements.

**Additional Information:** Prospective undergraduate students and applicants should review online information provided by the [colleges and](#)

schools that offer the majors in which they are interested and should consult the *Undergraduate Catalog* for details.

## Readmission of Former Undergraduate Students

Former University students who were not enrolled the previous long-session semester must apply for readmission. Students who completed the requirements for a degree from the University in the previous semester or summer session must also apply for readmission. (Former graduate students who have never been enrolled at UT Austin as undergraduates and who wish to take undergraduate courses must apply for undergraduate transfer admission.) Application materials must be submitted by the deadline for former students. To be eligible to re-enroll, a former student who has subsequently attended another college must submit an official transcript from each college showing a grade point average of at least 2.50 on a 4.00 scale for all transferable coursework the student has undertaken since leaving the University. (Students who have taken only one transferable course in their absence must earn at least a 2.00 on that course.) This requirement does not apply to work taken during a summer session that falls between consecutive spring and fall semesters in which the student is enrolled at the University.

A student who leaves the University on scholastic probation will be on scholastic probation when readmitted, even if they have attended another institution in the interim.

Former students who wish to enter the School of Law, the Graduate School, or the graduate program of the McCombs School of Business for the first time must meet the requirements and deadlines given in the appropriate section of this chapter. Additional information about graduate and law programs is given in their respective catalogs.

## Readmission Following Military Service

In accordance with section 51.9242 of the Texas Education Code, a student who withdraws from the University in order to perform required military service will be readmitted for any semester or summer session that begins within a year after the student's release from required service. The student is not required to apply for readmission or pay an application fee. However, the student must submit the Notification of Intent to Re-Enroll. This form allows the University to prepare for the former student's return. If the form is submitted late, the student's registration may be delayed. To prevent a delay, the former student should submit the form at least two weeks before they expect to register for classes.

This policy applies to students who withdraw for service with the United States armed forces or the Texas National Guard; however, it does not apply to students who withdraw solely to perform one or more training exercises as members of the Texas National Guard.

## Graduate Admission

A summary of the general requirements, application fees, deadlines, and procedures for graduate admission follows. Prospective students should refer to the Graduate Catalog for further information.

### Requirements

General requirements for admission to the Graduate School are:

1. A bachelor's degree from a regionally accredited institution in the United States or a comparable degree from a foreign academic institution. The Graduate and International Admissions Center (GIAC) will determine eligibility for admission in consultation with prospective graduate programs.

2. A grade point average of at least 3.00 in upper-division (junior- and senior-level) coursework and in any graduate work already completed.
3. An official score for the Graduate Record Examinations General Test (GRE), unless otherwise specified by the graduate program to which the student is applying. The McCombs School of Business requires master's and doctoral degree applicants to submit a satisfactory score for either the GRE or the Graduate Management Admission Test (GMAT). Applicants to dual or combined degree programs with the School of Law must submit a satisfactory score for the Law School Admission Test (LSAT) as well as for the GRE or GMAT. International students whose native language is not English must also submit scores on the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). The Institutional TOEFL (ITP) and the IELTS General Training are not accepted. For more information on which countries qualify for a waiver of this requirement, as well as programs that do not waive the requirement, please visit the Graduate School's website. Applicants should consult the graduate advisor for the program of interest to learn which test the program requires.
4. Adequate subject preparation for the proposed major. Evidence of adequate preparation varies by program, but examples include letters of reference, auditions, samples of work, and personal statements.
5. A recommendation for acceptance by the Graduate Studies Committee for the proposed major area.

Applicants may apply simultaneously to more than one graduate program, but they may enroll in only one program, with the exception of applicants admitted to dual degree programs. All complete applications are forwarded to the Graduate Studies Committee(s) for the proposed area(s). Admission decisions are based on a careful and holistic review of all aspects of the applicant's file including standardized tests, grade point average, letters of recommendation, research and teaching experience, etc. Scores on standardized tests such as the GRE are not the sole criterion for making an admission decision or ending consideration of the application. Information about admission criteria for each graduate program is available from the graduate advisor.

When there are more qualified applicants than can adequately be instructed by the faculty or accommodated in the facilities, the Graduate Studies Committee (GSC) for the proposed area may deny admission to students who have met the prescribed requirements. GSC admissions recommendations to the graduate dean are final; there is no appeal. All admissions must be approved by the graduate dean.

Applicants who feel that their grade point averages or test scores are not valid indicators of ability should explain their concerns in a letter to the graduate advisor of the program to which they are applying.

### Admission Tests

The Graduate Record Examinations General Test (GRE), the Graduate Management Admission Test (GMAT), and the Test of English as a Foreign Language (TOEFL) are offered at testing centers throughout North America and at selected international sites. Current information about GRE and TOEFL test dates, locations, and registration procedures is published by the Educational Testing Service. Similar information about the GMAT is published by the Graduate Management Admission Council.

The International English Language Testing System (IELTS) is administered in more than 120 countries and is available off-site in additional countries. Information about IELTS test dates, locations, and procedures is published on their website.

The Institutional TOEFL (ITP) and the IELTS General Training are not accepted.

Applicants to dual or combined programs with the School of Law must also take the Law School Admission Test (LSAT), administered by the Law School Admission Council. Information about the LSAT is published by the [Council](#).

## Graduate School Select Admission Program

The Graduate School Select Admission Program allows graduate programs to recommend academically outstanding University of Texas at Austin undergraduates for admission to seek a graduate degree in a state formula-funded degree program. Students are normally nominated in the junior year, and programs are encouraged to limit their nominations each year to one or two outstanding undergraduates.

Nominations are forwarded to the Graduate School by the program's graduate advisor or graduate admissions office with the recommendation of the Graduate Studies Committee. Undergraduate candidates may be extended an offer of admission and financial aid as early as the junior year, conditional upon completion of the baccalaureate degree. Application and transcript fees are waived; some graduate programs may waive submission of GRE scores. Admitted students may enroll in graduate courses at undergraduate tuition rates during the senior year and reserve the courses for graduate credit.

Additional information about the [Graduate School Select Admission Program](#) is available in the Graduate School and from the graduate advisor of the nominating graduate program.

## Conditional Admission

Almost all of the students who are admitted to the Graduate School have qualifications equal to or better than the minimum standards outlined in [Graduate Admission Requirements](#) (p. 26). However, a Graduate Studies Committee may recommend, with the consent of the graduate dean, that a student be admitted to the Graduate School with conditions. The Graduate Studies Committee may require the student to maintain a certain grade point average or to take a certain number of semester hours of coursework. A conditionally admitted student may also be required to remedy deficiencies in undergraduate preparation by taking upper-division or graduate courses. The graduate advisor notifies the student of these conditions at the time of admission. The Graduate Studies Committee petitions the graduate dean for removal of conditions once the conditions have been met.

A student who does not fulfill the conditions within the specified time may be barred from subsequent registration in the Graduate School. If the student changes their major before the conditions have been fulfilled, the conditions remain in effect unless the graduate advisor for the new program, on behalf of the Graduate Studies Committee, petitions the graduate dean and receives approval for them to be changed.

**Students admitted with conditions are not eligible to be graduate student academic employees, except under rare and unusual circumstances and with the approval of the graduate dean.**

## Admission as a Nondegree Student

A person who would like to take graduate coursework without becoming a candidate for an advanced degree may apply for admission to a graduate program as a nondegree student. Admission as a nondegree student is not available in all graduate programs. Enrollment as a nondegree student is normally limited to one year. Nondegree students are not eligible to be teaching assistants, assistant instructors, graduate

research assistants, academic assistants, assistants (graduate), or tutors (graduate).

The applicant must submit an application and transcripts of all college coursework to the Graduate and International Admissions Center (GIAC). As with degree-seeking applicants, nondegree applicants must possess a bachelor's degree from a regionally accredited institution in the United States or a comparable degree from a foreign academic institution. The Graduate and International Admissions Center (GIAC) will determine eligibility for admission in consultation with prospective graduate programs. Graduate Record Examinations (GRE) scores are not required unless otherwise specified by the graduate program. International students whose native language is not English must also submit scores on the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) unless otherwise exempt. Admission must be recommended by the Graduate Studies Committee for the program and approved by the graduate dean.

A graduate nondegree student who later wishes to seek a graduate degree must meet the [requirements for admission](#) (p. 26), submit all required materials and items by the program's deadline, and must pay the usual application fee. A degree-seeking student may petition to have applied to the master's degree up to six semester hours of graduate credit earned while they were a graduate nondegree student.

**Exchange students.** A graduate student who is admitted to the University through a reciprocal exchange program is classified as a nondegree student. An exchange student may not register for more than two long-session semesters and one summer session. The transferability of academic credit to the student's home institution is determined by the home institution.

An exchange student who wishes to take a graduate course must 1) obtain the approval of the instructor and of the graduate advisor for the program that offers the course, 2) meet all course prerequisites and, 3) meet any other requirements affecting nondegree students. An exchange student may later apply for admission to the University as a degree-seeking graduate student. To do so, the student must submit the usual test scores, application fee, and other required material by the graduate program's deadline.

**Exchange students admitted as graduate nondegree students.** If a graduate nondegree exchange student is later admitted to the Graduate School as a degree seeker, the Graduate Studies Committee may ask for the graduate dean's approval to include on the student's master's degree Program of Work up to six hours of graduate coursework that the student completed as a graduate nondegree exchange student. All requirements related to courses that may be counted toward graduate degrees apply, including rules concerning courses counted toward another degree.

**Exchange students admitted as undergraduate nondegree students.** If an undergraduate nondegree exchange student is later admitted to the Graduate School, graduate courses that they took as an undergraduate nondegree exchange student may not be counted toward a graduate degree.

## Recommended Application Dates for Graduate Study

Each graduate program sets its own application deadline. Applications typically open on September 1 for the following year. Few graduate programs admit new students for the spring semester; those that do generally have deadlines no later than October 1. Deadlines posted are the dates by which all documents and test scores must be received. It is the applicant's responsibility to monitor their application status, to ensure all required items are submitted, and to meet the deadline set by the graduate program. A list of program deadlines is published

by the [Graduate School](#). Applicants should complete and submit their applications, as well as all supporting documents, well in advance of the application deadline. Certain items, such as test scores, take several weeks to arrive and applicants should plan accordingly.

To apply for financial aid in the form of gift aid, which includes grants and scholarships, and self-help aid, which includes student employment programs and long-term loans, applicants are encouraged to complete the Free Application for Federal Student Aid (FAFSA). More information about these programs and deadlines for filing the FAFSA are published by the [Office of Scholarships and Financial Aid](#). Information is also available by mail from The University of Texas at Austin, Office of Scholarships and Financial Aid, PO Box 7758, Austin TX 78713-7758.

Individual graduate programs may also offer financial assistance to their students in the form of assistantships or fellowships. For more information about these programs and deadlines for applying to them, applicants should contact the graduate program of interest. Financial aid decisions are made soon after program application deadlines, and applicants whose materials have not been received may not be given full consideration.

## Fellowships

University fellowships, which are administered through the Graduate School, are awarded to both entering and continuing graduate students in most academic areas. Students must be nominated by their graduate advisors for any fellowship administered by the Graduate School, but many award decisions are made at the college or program level. Additional information on University fellowships is published by the [Graduate School](#).

University recruiting fellowships for entering graduate students are awarded on the basis of scholastic excellence and adequate preparation for graduate study in the student's chosen field, as shown by their academic record and letters of recommendation. University fellowships for continuing students are awarded on the basis of the student's record since entering the Graduate School, including performance in relevant coursework and research or creative activity, letters of recommendation from University faculty members, and the endorsement of the graduate advisor. Financial need is also a consideration for some fellowships. There are a number of other competitive fellowships awarded by the University or by graduate programs with specific qualifications.

Generally, fellowships require no service from the recipient. Many major fellowships provide for payment of all or nearly all tuition in addition to the stipend. Recipients of certain graduate fellowships of \$10,000 or more per year are eligible to participate in the University's staff group health insurance plan. Note that while access to the staff health plan is provided, funding may or may not be included depending on the fellowship award.

## Application Processing Fee

All applicants to the Graduate School must submit a nonrefundable application processing fee along with their credentials. Applicants may apply simultaneously to more than one graduate program; a fee may be charged for each application. An applicant may be eligible for a waiver of the fee on the basis of documented financial need. Applicants may consult with the Graduate and International Admissions Center (GIAC) to determine eligibility for a waiver. Application fees cannot be refunded, even if the application is not completed.

*US citizens, permanent residents, and University undergraduates.* The fee for applicants to the Graduate School is \$65. The fee for applicants to the full-time, working professional, and executive Master of Business Administration (MBA) programs is \$200. The fee for applicants to the

Master in Professional Accounting (MPA) program, including students in the integrated BBA/MPA program, is \$125. Applicants applying to a dual-degree program with the Master of Business Administration (MBA) program will pay only the higher of the application fees.

*International applicants.* The fee for applicants who are not citizens of or permanent residents of the United States is \$90. The fee for applicants to the full-time, working professional, and executive Master of Business Administration (MBA) programs is \$200. The fee for applicants to the MPA program is \$125. Applicants applying to a dual-degree program with the Master of Business Administration (MBA) program will pay only the higher of the application fees.

## Enrollment Deposit

Some graduate programs require students to pay a nonrefundable enrollment deposit upon admission to indicate that they accept the offer of admission. For students applying to dual degree programs, one deposit serves to confirm the student's intention to enroll in both programs. When both programs require a deposit, only the higher fee is required. The deposit is applied to the payment of fees when the student enrolls. Students who demonstrate financial need may qualify for assistance to cover the deposit.

An enrollment deposit is assessed in the following graduate programs:

Programs	Degree	Deposit
Accounting	MPA	\$950.00
Business administration	MBA, full-time	\$2,000.00
Business administration	MBA, working professional and executive	\$2,000.00
Business Analytics	MSBA, Option III	\$2,000.00
Design	MA, Option III	\$1,500.00
Economics	MA, Option III	\$2,000.00
Electrical and Computer Engineering	MSE, Option III	\$1,000.00
Electrical and Computer Engineering - Software Engineering	MSE, Option III	\$1,000.00
Engineering Management	MSE, Option III	\$1,000.00
Finance	MSFin, Option III	\$2,000.00
Health Care Transformation	MSHCT	\$2,000.00
Human Dimensions of Organizations	MA, Option III	\$1,500.00
Identity Management and Security	MSIMS, Option III	\$1,000.00
Information Security and Privacy	MSISP, Option III	\$1,000.00
Information Technology and Management	MSITM, Option III	\$2,000.00
Marketing	MSMkt, Option III	\$2,000.00
Mechanical Engineering	MSE, Option III	\$1,000.00
Radio-television-film	MA, MFA, PhD	\$200.00
Social work	MSSW, PhD	\$150.00

School of Architecture M Arch I, MAAD, MAAH, \$350.00  
MID I, MID II, MLA I,  
MLA II, MSAS, MSCRP,  
MSHP, MSSD, MSUD,  
PhD in ARC, PhD in CRP

## Law School Admission

### Overview

The primary goals of the admission process for the School of Law are:

- to identify those students with the greatest probability of success in law school, considering proven predictors (standardized test scores, undergraduate grade point average, the applicant's undergraduate school and major) and giving appropriate weight to all other factors in the applicant's file;
- to identify students who exhibit a demonstrated commitment to public service, leadership, and other qualities valuable to the legal profession;
- to identify students whose background, experience, and other qualities are likely to be of value in the classroom and in the Law School; and
- to provide a service to the state of Texas by educating its citizens from underrepresented regions of the state and disadvantaged socioeconomic backgrounds.

The Law School takes great care in reviewing each application individually and holistically. The many factors the Admissions Committee takes into consideration include but are not limited to: academic rigor of undergraduate study; graduate study; demonstrated commitment to public service; work experience; leadership experience; extracurricular or community activities; disability; socioeconomic disadvantage and/or first-generation college-student status; identification as members of an underrepresented racial and ethnic group; personal experiences with discrimination; exceptional communication and writing ability; proficiency in languages other than English; honors and awards; service in the Armed Forces; publications; and any other personal characteristics or experiences that would contribute to the diversity and overall enrichment of the Law School.

### Application Procedures

Please refer to the School of Law admissions [website](#) for detailed information about the policies and procedures.

#### First-Year Applicants

To be considered for admissions at the School of Law as a first-year student, an applicant must register with the [Law School Admission Council \(LSAC\)](#) and the [Credential Assembly Service \(CAS\)](#), take the [Law School Admission Test \(LSAT\)](#) or [Graduate Record Examination \(GRE\)](#), and demonstrate that they have earned a bachelor's degree from a [regionally accredited](#) U.S. university, or the foreign equivalent whose program has been deemed of comparable quality, prior to the start of the first fall semester at the School of Law. Further, all applicants must have achieved a minimum undergraduate grade point average of 2.20, as calculated by LSAC (unless the applicant was enrolled as an undergraduate under the Academic Fresh Start option pursuant to Section 51.931 of the Texas Education Code).

#### Transfer Applicants

To be considered for admissions at the School of Law as a transfer student, an applicant must be attending a law school that is accredited by the [American Bar Association](#) and a member of the [Association of](#)

[American Law Schools](#). The applicant must register with the [Law School Admission Council \(LSAC\)](#) and the [Credential Assembly Service \(CAS\)](#), and demonstrate that they have completed the first-year curriculum in good academic standing.

#### Transient (Visiting) Applicants

To be considered for admissions at the School of Law as a transient (visiting) student, an applicant must have completed the first-year curriculum in good academic standing at a law school that is accredited by the [American Bar Association](#) and a member of the [Association of American Law Schools](#) and register with the [Law School Admission Council \(LSAC\)](#).

### Deadlines

The following deadlines are non-negotiable.

#### First-Year Applicants

- **September 1** - Application opens
- **November 1** - Application deadline for Early Decision
- **March 1** - Application deadline for Regular Decision

The School of Law must receive a student's valid LSAT and/or GRE score by the appropriate deadline to consider their application for admission.

#### Transfer Applicants

- **May 1** - Application opens
- **June 15** - Application deadline

The School of Law admits transfer students on a rolling basis once applications are complete; therefore, applicants are strongly encouraged to apply early.

#### Transient Applicants

- Summer Semester
  - **April 1** - Application opens
  - **May 15** - Application deadline
- Fall Semester
  - **May 1** - Application opens
  - **June 15** - Application deadline
- Spring Semester
  - **September 1** - Application opens
  - **November 15** - Application deadline

Please contact the School of Law Admissions Office to confirm whether courses will be available to visiting students before submitting an application. The School of Law is unable to refund any application fees.

### Enrollment Deposit

Applicants admitted to the law school must submit a nonrefundable deposit of \$500 (amount subject to change) to confirm their acceptance of the offer of admission. The deposit will be applied to the first semester tuition statement when the student enrolls.

### Residency Regulations

Under state statutes and Texas Higher Education Coordinating Board rules interpreting them, a student or prospective student is classified as a resident of Texas, a nonresident, or a foreign student. A person who has lived in the state under circumstances specified in the Coordinating Board rules is eligible for classification as a Texas resident. A citizen, a national, or a permanent resident of the United States who does

not meet resident criteria is classified as a nonresident. An alien who is not a permanent resident of the United States and has not been permitted by Congress to adopt the United States as domicile while in this country is classified as a foreign student. A person classified as a nonresident or a foreign student may qualify, under certain exceptions specified in the rules, for resident tuition rates and other charges, while the person continues to be classified as a nonresident or a foreign student. Information about the Coordinating Board's rules on residency is published on the [THECB website](#).

A student entering the University for the first time, or reentering after an absence of more than one semester, should carefully review the Coordinating Board rules in order to be prepared to pay the required tuition. Information and advice on residency status is available from the University's Office of Admissions, (512) 475-7391. Information about establishing residency is published by the [Office of Admissions](#).

**Effect of absence from the University.** Students returning to the University after an absence of more than two semesters may be required to file a residency form.

## Registration, Tuition, and Fees

Students at the University register for classes online; instructions are given in the [Course Schedule](#). The only way to enroll in a class is to register for it through the proper registration procedure or to add a class after the initial registration. The instructor receives the student's name only by official notice from the registrar. Students may not receive credit for a course for which they are not registered.

By registering, a student enters a college or school of the University and, except in matters of conduct, is under the jurisdiction of the dean of that college or school. The dean has jurisdiction over the student's program of study and degree requirements. A student pursuing simultaneous majors in two colleges is subject to the regulations of both colleges. Students taking a course in a college or school other than the one(s) in which they are registered are subject, so far as that course is concerned, to the regulations of the college or school in which the course is given. In matters of conduct, all students are under the jurisdiction of the dean of students.

## Academic Advising

Academic advising is available to all students before registration. In many degree programs, students must be advised before they may register. Advising requirements and locations are given in the [Course Schedule](#). However, the University recognizes that academic advising is more than course selection. A description of the broader goals of the advising process is given in [Academic Policies and Procedures](#) (p. 47).

## Registration Periods

Freshman and transfer students entering the University in the fall semester are encouraged to attend an orientation session, during which they will be advised and will register for classes. Information about orientation for new students, including graduate and international students, is available from the New Student Services [website](#) and in the Student Services Building (SSB) Suite 3.410.

Continuing and readmitted students may register during each semester and summer session for the following term. Registration periods for the fall semester and the summer session usually begin in April; those for the spring semester, in late October or early November. Detailed information about registration is given in the [Course Schedule](#).

## Paying Tuition as a Part of Registration

Students are not registered or entitled to attend classes, participate in class-related activities, or use University facilities and services until their tuition bill is paid in full or in accordance with an approved installment plan. A student who has an overdue debt to the University may not register until the debt is paid.

## Section 103 Compliance Policy (Veterans' Benefits and Transition Act)

In accordance with the [Veterans Benefits and Transition Act of 2018](#), Section 103 became effective August 1, 2019. Students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I. Bill® (Ch. 33) or Veteran Readiness and Employment (Ch. 31) benefits must register for classes, submit a [G.I. Bill® Questionnaire](#) and [VA certificate of eligibility for entitlement](#) (or the equivalent award letter) to the [Office of the Registrar, Veteran Certification](#). This must be done no later than two business day prior to the initial tuition bill deadline for the semester requesting education benefits.

These students will not be restricted in any way for 90 days from the tuition bill deadline, if payment has not been received due to a delay in receipt of benefits from the VA. After the 90 days, the University will review each student on a case by case basis. The student is responsible for payment of any tuition balance not covered by their VA education benefit by the appropriate deadlines.

## Late Registration

Students are expected to register at their earliest opportunity. A student who registers late is charged a fee to defray the cost of the extra services necessary to effect the late registration. Late registration periods are identified in the [Course Schedule](#) each semester and summer session. Students may register after the fourth class day in a fall or spring semester or the second class day in a summer term only with the approval of the department chair, the student's dean, and the registrar. Registration after these dates is approved only in unusual circumstances.

## Texas Success Initiative

Undergraduate students who have not fulfilled requirements of the Texas Success Initiative (TSI) may be subject to enrollment restrictions or may be barred from registration. TSI is described in [Academic Policies and Procedures](#) (p. 49).

## Concurrent Enrollment at the University and Another Collegiate Institution

Concurrent enrollment occurs when a student is enrolled at two separate institutions simultaneously. Prior written approval of a student's academic dean is required to assure that a course taken at another institution while the student is concurrently registered at the University will count toward the student's degree. Concurrent enrollment policies of the colleges and schools are given in the [Undergraduate Catalog](#). Information about fees for students enrolled concurrently at two institutions is given in [Additional Fees](#) (p. 37).

# Continuous Registration of Graduate Students

All graduate students are expected to enroll and pay tuition by the twelfth class day of the fall semester and the spring semester of each academic year until graduation. If the student has been admitted to candidacy for the doctoral degree, registration in the dissertation course or the equivalent or in international study and research is required.

The only alternative to continuous registration is a leave of absence, discussed in the [Leave of Absence for Graduate Students](#) (p. 31) section. In order to fulfill the continuous registration requirement, doctoral candidates who are readmitted must register retroactively and pay tuition for all semesters that have elapsed since they were last enrolled.

If a student who is not on approved leave fails to register by the twelfth class day, the student may not return to the University without applying for readmission. The student must apply for readmission both to the University and to the graduate program and must pay the general application fee. The application is reviewed by the Graduate Studies Committee, which may choose to readmit the student or to deny readmission.

## Leave of Absence for Graduate Students

Degree-seeking graduate students may apply for a leave of absence of no more than two semesters. Requests for a leave of absence must be approved in advance by the graduate advisor and the graduate dean. Applications from students who have been admitted to candidacy will be approved by the graduate dean only in rare and unusual circumstances.

A student on approved leave must apply for readmission in order to return to the University, but readmission during the approved period is automatic and the application fee is waived.

A student on leave may not use any University facilities; nor is the student entitled to receive advice from any member of the faculty. A leave of absence does not alter the time limits for degrees or coursework.

## Registration in the Graduate School Following Graduation

Graduate students who wish to continue enrollment beyond the semester in which their degree is awarded must be admitted as nondegree-seeking students or as degree-seeking students in a new degree program. Students must request a change of major or degree-seeking status from the Graduate School.

## In Absentia Registration

A student who is taking the final course(s) remaining to complete degree requirements via nonresident credit or a candidate for a degree who has completed the requirements for graduation and needs to register only for the purpose of having a degree conferred, may register in absentia. In absentia registration is not permitted for any other purpose; for graduate students, in absentia registration is allowed at the end of the summer session for fall graduation as described below. In order for the degree to be awarded, the remaining coursework must be completed, the final grade recorded on the student's academic record, and degree requirements certified by the established deadlines for

the term. Students registering in absentia must still meet in-residence requirements for a degree to be conferred.

## Undergraduate Students

After registering for classes, undergraduate students may change to in absentia status only with the approval of their dean. The classes for which the student is registered should be dropped and the in absentia registration added through the normal add/drop procedure. If the change is made during the first twelve class days, the student's tuition is refunded.

## Graduate Students

Graduate students must be registered for the semester in which they graduate and must apply for graduation by the deadline published in the academic calendar. A student who fails to complete all degree requirements or misses the deadline for acceptance of the thesis, report, recital, dissertation, or treatise must register and pay tuition the following semester or summer session in order to receive the degree.

An exception is made for students who apply to graduate in the summer session but miss the deadline for acceptance of the thesis, report, recital, dissertation, or treatise. In this case, the student may be registered in absentia for the fall semester, only for the purpose of receiving the degree, by degree evaluators in the Office of Graduate Studies. The thesis, report, recital, dissertation, or treatise must be accepted by the deadline for in absentia registration, which falls before the beginning of the following fall semester. Additional exceptions may be granted by the graduate dean under rare or extenuating circumstances. A student may be registered in absentia only once.

## Transfer from One Division to Another Within the University

Students in any undergraduate college or school of the University may transfer to any other college or school within the University only under the general procedures and conditions described below.

1. To transfer, students must obtain the appropriate form at the office of the dean of the new college or school. Transfer procedures must be completed by the end of the eighth class day in the fall or spring or the fourth class day in the summer for the transfer to be effective in the current term.
2. Students may apply to transfer only two times to each new college or school that has limited space for internal transfers. For these colleges and schools, the student must apply within the student's first four long-term semesters of enrollment at the University.
3. Students who transfer to a new college or school retain the same University probationary status, if any, that was in effect at the time of the transfer.
4. Students who are dismissed under University-wide regulations from one college or school are ineligible to transfer to another college or school.
5. Restrictions based on credit earned:
  - a. Students who have completed 45 or fewer semester hours of college credit are eligible to apply for transfer between colleges and schools regardless of their University grade point average, provided they satisfy all conditions and procedures that apply to students who enter the same college or school, and any program thereof, when first admitted to the University.
  - b. Students who have completed more than 45 semester hours of college credit must have a University grade point average of at least 2.00 to qualify for transfer between colleges and schools. Generally, students with more than 45 semester hours of credit

and a grade point average less than 2.00 may not transfer to another division within the University and must enroll in courses approved by their current college or school. All colleges are authorized to allow such students to register for courses required for the students' potential new majors, provided the normal prerequisites are met.

- c. Students may not transfer to another college or school after they have completed 60 semester hours of coursework in residence. A student who wishes to seek an exception to this rule should petition the dean's office of the college into which the student would like to transfer. Approval of the petition will take into account the student's ability to graduate within four<sup>1</sup> years of entering the University.
6. Students may not transfer to another college or school after they have completed four long-session semesters in residence, regardless of the amount of credit they have earned. A student who wishes to seek an exception to this rule should petition the dean's office of the college into which the student would like to transfer. Approval of the petition will take into account the student's ability to graduate within four<sup>1</sup> years of entering the University.
7. Transfer students from other institutions of higher education are eligible to apply for transfer between colleges and schools within the University upon completion of their first long-session semester or summer session at the University, regardless of the number of semester hours accumulated, provided they satisfy all conditions and procedures that apply to students entering the same college or school, and any program thereof, when first admitted to the University.
8. Students who are readmitted to the University after not enrolling for one or more long-session semesters are readmitted to the college or school in which they were last enrolled. They may then apply for transfer to another college or school, provided they meet the general conditions for transfer given in this section and any special admission requirements of the college or school to which they wish to transfer.
9. Graduate students not previously admitted to the University as undergraduates may apply to transfer from the Graduate School to an undergraduate college or school under the general conditions for transfer noted in items 1 and 2 only if they (a) satisfy any pertinent admission requirements for that undergraduate college or school, and (b) have the additional approval of the director of admissions.

<sup>1</sup> Or more than four years if dictated by the length of the program.

## Auditing a Course

Auditing a course is usually done for academic exploration and self-enrichment.

Permission to audit a course entitles the student to attend class but not to hand in papers, take part in discussion, or receive evaluations. An auditor does not receive University credit for the course audited. The audited course will not appear on the student's transcript.

A law student may not audit a law course.

A University student who wishes to audit a course should obtain a [Class Auditor Permit](#) from the [Texas One Stop](#) and secure the consent of the course instructor and the student's dean. A nonstudent must obtain the [Class Auditor Permit](#) from the [Texas One Stop](#) and the consent of the instructor. Nonstudents under the age of 65 are charged an audit fee of \$20 a course.

Auditors are permitted only when space is available. An instructor or dean may refuse any request to audit a course. Nothing in these rules prohibits an instructor from permitting guests and visitors in a class.

## Tuition and Fees

Policies governing the payment and refund of tuition, fees, and other charges are approved by the Board of Regents of The University of Texas System and comply with applicable state statutes. All charges are subject to change by legislative or regental action and become effective on the date enacted. For clarification of any matter relating to payment or refund of charges, a student should contact the office or administrative unit that originated the charge or refund.

### Financial Responsibility

Students must sign a Financial Responsibility Statement (FRS) each semester prior to registration, and are expected to meet financial obligations to the University when they are due. Tuition is due on the date given in the academic calendar and can be found on [My Tuition Bill](#). Students are not entitled to attend classes unless the tuition bill has been paid in full or in accordance with an installment plan. Failure to comply with tuition payment deadlines may result in the cancellation of registration. Other charges are due within 10 days after the bill is issued by the University, or according to any payment instructions on the bill. If the student does not pay the amount owed by the due date, the University may bar the student from registration and may withhold official transcripts and diplomas.

Payment of registration fees must be made in full each semester by the payment deadline(s), or late fees will be assessed. Methods of payment include personal check, eCheck, electronic funds transfer, cash, money orders, cashiers check, or credit card (subject to a 2.3% convenience fee). Payments for larger amounts, the difference to be paid in cash to the student, cannot be accepted. All checks must be drawn on United States banks in United States dollars; collection charges that result from checks drawn otherwise are charged to the student.

## Returned Checks

When a check or an electronic payment (referred to in this section as a check) is returned to the University, a \$25 service charge is assessed. The student has 10 days from the date of the notice to make full payment by cash, credit card, cashier's check or money order. Failure to comply will result in the University refusing to accept personal checks. A late charge, if applicable, will be assessed.

If the returned check was for the tuition bill or to clear a registration bar, the student's registration will be canceled. A service charge of \$25, a matriculation fee of \$15 and a reinstatement fee (see [Additional Fees](#) (p. 37)) will be added to the student's account.

The University will not accept a check from an individual who: previously had a registration canceled because of a returned check; wrote a bad check to clear a bar; wrote a bad check and was not responsive to requests for payment; or habitually writes bad checks, even though restitution is made promptly. Once a student is barred from writing a personal check, the bar remains in place for at least one year. After the year has passed, the student may submit an appeal to the Returned Check Section of the Office of Accounting to have the bar lifted.

## Payment Plans

An **installment plan** is a method of payment during the fall and spring semesters only. Tuition payments must be made according to the plan's guidelines. Students sign an Installment Plan Note in the Financial

Responsibility Statement (FRS) prior to registration each semester. Payment due dates are found on [My Tuition Bill](#) and are provided in the [Academic Calendar](#) (p. 7). Any student who does not pay their tuition bill in full by 5:00 PM CST on the 12<sup>th</sup> class day will automatically be enrolled in the installment plan and assessed a nonrefundable \$15 installment plan fee. If the balance of their tuition (installment payment) is not made on time, a late fee of \$25 is added to the amount due. It is the student's responsibility to track the amount due and payment deadlines on [My Tuition Bill](#). If applicable, the following charges may also appear on a student's tuition bill: the international student health insurance program fee, the general property deposit and the late registration fee. The first payment is due by the date given in the [Academic Calendar](#) (p. 7).

**First payment.** There are three ways for students to make their first payment:

- Students have the option of paying their tuition bill in full, the minimum amount due, or any amount in between on [My Tuition Bill](#).
- Students who have a "Zero Bill" must click the "Confirm Attendance" button to secure their registration before their tuition deadline.
- Students who have financial aid covering the bill in full, must click the "Pay with Financial Aid" button before their posted tuition deadline. Students who have financial aid posted on their bill may have a lower initial payment.

**Additional payments.** All tuition must be paid in full by 5:00 PM CST on the 12<sup>th</sup> class day in the fall and spring semesters, or by the 4<sup>th</sup> class day in the summer semester. Students who choose to initially pay the minimum amount due should pay their tuition in full by the above days, or they will be automatically placed on the installment plan, and will be assessed a nonrefundable \$15 service charge. It is the student's responsibility to track the amount due on [My Tuition Bill](#). Students who add classes, change their major, or otherwise change their registration record may incur additional tuition fees after their initial payment. In this case, payment for additional tuition is due by the date given in the [Academic Calendar](#) (p. 7) or shown on [My Tuition Bill](#).

Students who withdraw from the University after the first four weeks of class is responsible for the full amount of tuition. If a student fails to make a full payment on time, including late fees, they may be subject to one or more of the following actions, at the University's option: (1) bar against readmission to the institution; (2) withholding of degree and official transcript; (3) all penalties and actions authorized by law.

Financial aid recipients must apply any aid received to the unpaid balance of the tuition bill at the time the aid check is released.

Specific information about paying the tuition bill is available in each semester's *Course Schedule*.

## Admission Application Processing Fees

Each applicant for admission to the University must submit a nonrefundable application processing fee. The amounts of these fees for undergraduate applicants are given in [Undergraduate Admission](#) (p. 17); for graduate applicants, in [Graduate Admission](#) (p. 26); and for law applicants, in [Law School Admission](#) (p. 29).

Applicants to the professional sequence in nursing must pay a nonrefundable processing fee; applicants to the professional curriculum in pharmacy must also pay a nonrefundable processing fee.

## Tuition

The flat-rate tuition for each program covers the student's academic program costs, mandatory fees and charges, and college course incidental fees. It does not include the general deposit, the international student health insurance fee, the international student orientation fee, or fees for extended field trips that require students to live off-campus.

Flat-rate tuition for Fall 2021 and Spring 2022 is given in the [tuition tables](#) (p. 34). After selecting classes for a future semester, the student may view their estimated tuition bill at [My Tuition Bill](#). Flat-rate tuition for Summer 2022 will be published on the [Texas One Stop](#) website.

The [tables](#) (p. 34) show tuition for students enrolled in a single college. Undergraduates with simultaneous majors in more than one college are charged only the higher college rate. Tuition for graduate dual degree programs is unique to each program; amounts are available from [Texas One Stop](#)

The information in the tuition tables is not intended to be comprehensive and is subject to change. Tuition, fees, and charges are subject to change by administrative, legislative or regental action, and changes become effective on the date enacted. This information should be used only as a guideline for estimating charges.

## Nonresident Tuition for Resident Students

Because the University is a state-assisted institution, tuition rates are lower for Texas-resident students than for nonresidents, including both out-of-state and international students. Information about residency is given in [Residency Regulations](#) (p. 29). In the following circumstances, a student who is classified as a Texas resident may be charged nonresident tuition:

**Undergraduates.** State law allows colleges and universities to charge a Texas-resident undergraduate the nonresident tuition rate if the student has attempted an excessive number of hours beyond the number required for their degree. In addition, a higher tuition rate may be charged if a student enrolls again in a course they have completed.

As of the current academic year, the University does not charge undergraduates additional tuition for an excessive number of hours or for repeated courses.

**Graduate students.** A student who has earned more than 99 semester hours of credit at the doctoral level is subject to the nonresident tuition rate, even if the student is a Texas resident or holds an appointment that would normally entitle the holder to pay resident tuition. This policy, sometimes called the "99 hour rule," is authorized by section 54.012 of the Texas Education Code. More information about charges for excessive graduate coursework is available from the [Office of Graduate Studies](#).

As of the current academic year, the University does not charge graduate students additional tuition for an excessive number of hours or for repeated courses.

# Tuition Tables

House Bill 29, passed by the 83<sup>rd</sup> Texas Legislature, requires public institutions of higher education to offer a fixed tuition price plan to incoming freshman and transfer students. The University of Texas at Austin has met the requirements of the law by establishing Longhorn Fixed Tuition which is offered to eligible undergraduate students. Tuition rates for the 2021-2022 academic year, including Longhorn Fixed Tuition rates for entering undergraduates, are published below. Undergraduates who enrolled in the Longhorn Fixed Tuition plan prior to the 2021-2022 academic year can view their [cohort rates](#).

## Undergraduate Traditional Flat Rate Tuition: Fall 2021 - Spring 2022

### Texas Resident Undergraduate Students

Hours	Architecture	Business	Communication	Education	Engineering	Fine Arts	Geosciences	Information	Liberal Arts	Natural Sciences	Nursing	Social Work	Undergraduate Studies
1	\$1,726	\$2,041	\$1,689	\$1,693	\$1,949	\$1,750	\$1,761	\$1,714	\$1,632	\$1,770	\$1,811	\$1,709	\$1,714
2	2,128	2,517	2,081	2,084	2,404	2,155	2,171	2,113	2,014	2,182	2,231	2,106	2,113
3	2,527	2,991	2,474	2,477	2,857	2,562	2,579	2,514	2,394	2,591	2,651	2,508	2,514
4	2,928	3,465	2,866	2,869	3,310	2,968	2,989	2,910	2,772	3,004	3,073	2,903	2,910
5	3,330	3,938	3,261	3,265	3,763	3,376	3,398	3,310	3,153	3,415	3,494	3,301	3,310
6	3,730	4,415	3,651	3,656	4,216	3,782	3,807	3,710	3,530	3,825	3,914	3,698	3,710
7	4,133	4,889	4,044	4,050	4,671	4,187	4,218	4,107	3,911	4,238	4,336	4,096	4,107
8	4,590	5,431	4,493	4,499	5,187	4,654	4,686	4,563	4,344	4,706	4,817	4,549	4,563
9	4,590	5,431	4,493	4,499	5,187	4,654	4,686	4,563	4,344	4,706	4,817	4,549	4,563
10	4,590	5,431	4,493	4,499	5,187	4,654	4,686	4,563	4,344	4,706	4,817	4,549	4,563
11	4,590	5,431	4,493	4,499	5,187	4,654	4,686	4,563	4,344	4,706	4,817	4,549	4,563
12+	5,738	6,788	5,615	5,624	6,484	5,815	5,855	5,703	5,429	5,883	6,020	5,686	5,703

## Undergraduate Traditional Flat Rate Tuition: Fall 2021 - Spring 2022

### Nonresident Undergraduate Students

Hours	Architecture	Business	Communication	Education	Engineering	Fine Arts	Geosciences	Information	Liberal Arts	Natural Sciences	Nursing	Social Work	Undergraduate Studies
1	\$6,209	\$6,980	\$5,968	\$5,979	\$6,611	\$6,187	\$6,304	\$6,081	\$5,802	\$6,137	\$6,523	\$6,095	\$6,081
2	7,658	8,608	7,357	7,373	8,151	7,626	7,770	7,497	7,154	7,567	8,045	7,515	7,497
3	9,106	10,235	8,751	8,766	9,695	9,069	9,240	8,915	8,508	8,995	9,565	8,936	8,915
4	10,552	11,860	10,140	10,160	11,233	10,509	10,708	10,332	9,858	10,431	11,084	10,355	10,332
5	12,001	13,488	11,534	11,552	12,776	11,952	12,179	11,750	11,211	11,861	12,604	11,776	11,750
6	13,447	15,114	12,921	12,945	14,316	13,392	13,646	13,165	12,562	13,292	14,127	13,197	13,165
7	14,894	16,742	14,314	14,339	15,859	14,836	15,116	14,583	13,915	14,722	15,645	14,617	14,583
8	16,549	18,600	15,902	15,935	17,618	16,481	16,797	16,204	15,461	16,354	17,384	16,241	16,204
9	16,549	18,600	15,902	15,935	17,618	16,481	16,797	16,204	15,461	16,354	17,384	16,241	16,204
10	16,549	18,600	15,902	15,935	17,618	16,481	16,797	16,204	15,461	16,354	17,384	16,241	16,204
11	16,549	18,600	15,902	15,935	17,618	16,481	16,797	16,204	15,461	16,354	17,384	16,241	16,204
12+	20,685	23,249	19,878	19,917	22,021	20,601	20,991	20,252	19,325	20,442	21,730	20,299	20,252

## Undergraduate Longhorn Fixed Tuition: Fall 2021 - Spring 2022

### Texas Resident Undergraduate Students

Hours	Architecture	Business	Communication	Education	Engineering	Fine Arts	Geosciences	Information	Liberal Arts	Natural Sciences	Nursing	Social Work	Undergraduate Studies
1	\$2,028	\$2,369	\$1,984	\$1,986	\$2,261	\$2,055	\$2,068	\$2,015	\$1,917	\$2,065	\$2,126	\$2,009	\$2,015
2	2,497	2,920	2,444	2,449	2,786	2,532	2,549	2,485	2,366	2,545	2,620	2,476	2,485
3	2,970	3,470	2,906	2,910	3,314	3,010	3,030	2,953	2,811	3,025	3,115	2,944	2,953
4	3,441	4,021	3,367	3,372	3,840	3,487	3,511	3,419	3,257	3,507	3,611	3,408	3,419
5	3,912	4,571	3,828	3,834	4,364	3,964	3,992	3,888	3,702	3,985	4,103	3,877	3,888
6	4,383	5,122	4,287	4,296	4,891	4,443	4,472	4,356	4,147	4,465	4,598	4,344	4,356
7	4,856	5,673	4,750	4,757	5,416	4,920	4,953	4,825	4,594	4,946	5,095	4,811	4,825
8	5,393	6,301	5,277	5,285	6,018	5,467	5,503	5,360	5,103	5,494	5,658	5,346	5,360
9	5,393	6,301	5,277	5,285	6,018	5,467	5,503	5,360	5,103	5,494	5,658	5,346	5,360
10	5,393	6,301	5,277	5,285	6,018	5,467	5,503	5,360	5,103	5,494	5,658	5,346	5,360
11	5,393	6,301	5,277	5,285	6,018	5,467	5,503	5,360	5,103	5,494	5,658	5,346	5,360
12+	6,739	7,878	6,594	6,604	7,519	6,831	6,876	6,699	6,377	6,867	7,071	6,678	6,699

## Undergraduate Longhorn Fixed Tuition: Fall 2021 - Spring 2022

### Nonresident Undergraduate Students

Hours	Architecture	Business	Communication	Education	Engineering	Fine Arts	Geosciences	Information	Liberal Arts	Natural Sciences	Nursing	Social Work	Undergraduate Studies
1	7,111	\$7,942	\$6,834	\$6,844	\$7,523	\$7,081	\$7,216	\$6,961	\$6,643	\$7,004	\$7,470	\$6,980	\$6,961
2	8,765	9,795	8,423	8,441	9,274	8,733	8,895	8,584	8,190	8,637	9,209	8,602	8,584
3	10,424	11,645	10,018	10,037	11,029	10,382	10,579	10,207	9,741	10,268	10,953	10,231	10,207
4	12,080	13,497	11,608	11,631	12,778	12,031	12,261	11,829	11,287	11,904	12,689	11,856	11,829
5	13,739	15,348	13,203	13,226	14,533	13,684	13,942	13,453	12,836	13,536	14,430	13,482	13,453
6	15,393	17,198	14,792	14,822	16,287	15,332	15,623	15,074	14,383	15,167	16,173	15,109	15,074
7	17,054	19,052	16,388	16,417	18,040	16,984	17,305	16,695	15,932	16,802	17,913	16,735	16,695
8	18,949	21,166	18,206	18,240	20,044	18,869	19,228	18,551	17,701	18,668	19,903	18,592	18,551
9	18,949	21,166	18,206	18,240	20,044	18,869	19,228	18,551	17,701	18,668	19,903	18,592	18,551
10	18,949	21,166	18,206	18,240	20,044	18,869	19,228	18,551	17,701	18,668	19,903	18,592	18,551
11	18,949	21,166	18,206	18,240	20,044	18,869	19,228	18,551	17,701	18,668	19,903	18,592	18,551
12+	23,682	26,457	22,756	22,803	25,051	23,585	24,033	23,185	22,124	23,331	24,875	23,239	23,185

## Graduate: Fall 2021 - Spring 2022

### Texas Resident Graduate Students

Hours	Architecture	Business	Communication	Education	Engineering	Fine Arts	Geosciences	Information	Liberal Arts	Natural Sciences	Nursing	Pharmacy	Public Affairs	Social Work
1	\$1,412	\$1,177	\$1,355	\$1,257	\$1,429	\$1,404	\$1,310	\$1,469	\$1,210	\$1,248	\$1,418	\$1,362	\$1,334	\$1,400
2	1,985	1,653	1,903	1,766	2,008	1,973	1,841	2,066	1,701	1,755	1,992	1,915	1,876	1,969
3	2,296	1,915	2,202	2,042	2,326	2,284	2,132	2,391	1,968	2,031	2,307	2,216	2,172	2,280
4	2,974	2,477	2,852	2,645	3,011	2,956	2,758	3,094	2,546	2,630	2,985	2,867	2,810	2,951
5	3,547	2,954	3,400	3,155	3,590	3,526	3,288	3,689	3,036	3,135	3,560	3,421	3,352	3,517
6	3,807	3,171	3,650	3,386	3,855	3,784	3,530	3,962	3,259	3,365	3,820	3,673	3,598	3,776
7	4,276	3,561	4,099	3,803	4,329	4,250	3,966	4,450	3,659	3,780	4,290	4,123	4,040	4,242
8	5,004	4,168	4,797	4,452	5,067	4,976	4,641	5,207	4,284	4,424	5,024	4,827	4,728	4,963
9	5,213	4,342	4,998	4,637	5,277	5,183	4,834	5,424	4,464	4,608	5,233	5,029	4,927	5,170
10	5,675	4,725	5,441	5,047	5,746	5,642	5,262	5,906	4,857	5,014	5,697	5,472	5,362	5,629
11	5,981	4,981	5,736	5,320	6,059	5,946	5,549	6,226	5,119	5,288	6,005	5,771	5,654	5,934
12	6,239	5,194	5,980	5,549	6,318	6,202	5,785	6,493	5,340	5,514	6,262	6,016	5,896	6,188
13	6,599	5,493	6,326	5,867	6,680	6,561	6,119	6,868	5,647	5,830	6,624	6,363	6,234	6,545
14	6,855	5,707	6,571	6,096	6,942	6,816	6,357	7,136	5,866	6,057	6,882	6,612	6,477	6,800
15	7,112	5,919	6,818	6,323	7,202	7,071	6,594	7,401	6,084	6,284	7,139	6,858	6,719	7,054

### Nonresident Graduate Students

Hours	Architecture	Business	Communication	Education	Engineering	Fine Arts	Geosciences	Information	Liberal Arts	Natural Sciences	Nursing	Pharmacy	Public Affairs	Social Work
1	\$2,030	\$1,822	\$1,980	\$1,897	\$2,034	\$2,024	\$1,971	\$2,082	\$1,863	\$1,913	\$2,035	\$2,013	\$1,975	\$2,011
2	3,184	2,860	3,108	2,978	3,191	3,173	3,093	3,269	2,922	2,999	3,194	3,162	3,100	3,156
3	3,958	3,552	3,862	3,700	3,965	3,942	3,842	4,061	3,631	3,726	3,968	3,926	3,848	3,920
4	4,922	4,418	4,800	4,601	4,930	4,901	4,778	5,048	4,515	4,634	4,934	4,883	4,786	4,874
5	5,787	5,196	5,648	5,412	5,798	5,767	5,620	5,937	5,310	5,452	5,806	5,743	5,629	5,735
6	6,849	6,148	6,680	6,404	6,861	6,822	6,649	7,026	6,284	6,448	6,866	6,794	6,661	6,784
7	7,812	7,013	7,622	7,303	7,826	7,783	7,586	8,014	7,169	7,357	7,835	7,751	7,598	7,741
8	8,968	8,050	8,750	8,385	8,985	8,934	8,708	9,201	8,226	8,444	8,992	8,896	8,723	8,885
9	9,643	8,656	9,408	9,016	9,660	9,606	9,363	9,893	8,847	9,081	9,670	9,567	9,379	9,554
10	10,408	9,343	10,155	9,730	10,426	10,367	10,105	10,678	9,548	9,800	10,438	10,326	10,124	10,312
11	11,077	9,942	10,809	10,356	11,099	11,035	10,756	11,365	10,161	10,431	11,109	10,989	10,774	10,975
12	11,651	10,457	11,368	10,893	11,674	11,607	11,312	11,954	10,687	10,970	11,683	11,559	11,332	11,543
13	12,416	11,144	12,114	11,607	12,440	12,369	12,056	12,740	11,389	11,691	12,450	12,319	12,075	12,300
14	12,799	11,487	12,487	11,966	12,823	12,749	12,427	13,131	11,741	12,049	12,834	12,697	12,447	12,680
15	13,659	12,258	13,326	12,768	13,685	13,608	13,262	14,014	12,529	12,860	13,696	13,550	13,283	13,533

## Law: Fall 2021 - Spring 2022

## Texas Resident and Nonresident Law Students

Hours	Resident Group 1 <sup>1</sup>	Resident Group 2 <sup>1</sup>	Resident Group 3 <sup>1</sup>	Resident Group 4 <sup>2</sup>	Continuing Nonresident <sup>2</sup>	Intermediate Nonresident <sup>2</sup>	New Nonresident <sup>2</sup>
1	\$3,088	\$3,625	\$3,769	\$3,839	\$5,044	\$5,164	\$5,700
2	3,789	4,450	4,627	4,712	6,190	6,338	6,993
3	4,350	5,107	5,308	5,408	7,106	7,276	8,028
4	5,470	6,422	6,676	6,802	8,937	9,151	10,099
5	6,593	7,741	8,047	8,199	10,772	11,028	12,171
6	7,712	9,057	9,415	9,592	12,603	12,904	14,240
7	8,692	10,207	10,611	10,811	14,206	14,545	16,051
8	9,675	11,360	11,811	12,031	15,811	16,187	17,862
9	10,654	12,511	13,005	13,251	17,411	17,828	19,675
10	11,357	13,333	13,862	14,124	18,559	19,001	20,969
11	12,058	14,158	14,718	14,993	19,703	20,174	22,263
12	12,757	14,980	15,571	15,864	20,848	21,346	23,557
13	13,318	15,639	16,258	16,562	21,764	22,285	24,592
14	14,017	16,460	17,113	17,434	22,909	23,456	25,887
15	14,715	17,280	17,964	18,301	24,051	24,624	27,177
16	15,273	17,935	18,646	18,995	24,965	25,561	28,209

1. *Resident group 1* consists of Texas residents who were first enrolled in the School of Law in spring 2008 or earlier; those in *resident group 2* are Texas residents who were first enrolled in the School of Law after spring 2008 but before summer 2010; those in *resident group 3* are Texas residents who first enrolled in the School of Law after spring 2010 but before summer 2011; those in *resident group 4* are Texas residents who first enrolled in the School of Law after Summer 2011.

2. *Continuing nonresident law students* are out-of-state and international students who first entered in spring 2004 or earlier and enrolled in the School of Law prior to summer 2008; *intermediate nonresident law students* are out-of-state and international students who first entered after spring 2004 and enrolled in the School of Law prior to summer 2008; *new nonresident law students* are out-of-state and international students who first enrolled in the School of Law after spring 2008.

## Professional: Fall 2021 - Spring 2022

### Texas Resident Professional Students

Hours	MPA	MBA First Year*	Executive MBA*	Evening MBA*	International MBA*	PharmD
1	\$3,726	\$7,889	\$2,485	\$2,485	\$4,867	\$3,239
2	4,715	9,201	3,665	3,665	5,676	3,881
3	5,706	10,514	4,845	4,845	6,486	4,636
4	6,574	11,827	6,023	6,023	7,297	5,283
5	7,443	13,143	7,205	7,205	8,108	5,930
6	8,312	14,457	8,384	8,384	8,917	6,683
7	9,054	15,768	9,446	9,446	9,726	7,328
8	9,922	17,082	10,625	10,625	10,537	8,082
9	10,666	18,396	11,806	11,806	11,348	8,729
10	11,037	19,709	12,509	12,509	12,157	9,375
11	11,658	21,019	13,212	13,212	12,967	10,130
12	12,027	22,333	13,799	13,799	13,778	10,774
13	12,401	23,648	14,386	14,386	14,588	10,774
14	12,894	24,963	14,970	14,970	15,396	10,774
15	13,263	26,275	15,674	15,674	16,207	10,774

\*There are enrollment costs associated with these MBA programs in addition to tuition. Refer to the [McCombs School of Business office](#) for further information.

## Nonresident Professional Students

Hours	MPA	MBA*	Executive MBA*	Evening MBA*	International MBA*	PharmD
1	\$5,610	\$8,746	\$3,446	\$3,386	\$8,036	\$7,391
2	6,646	10,201	5,086	4,992	9,373	8,867
3	7,684	11,659	6,725	6,603	10,712	10,591
4	9,137	13,114	8,365	8,212	12,051	12,068
5	10,587	14,570	10,003	9,821	13,389	13,544
6	12,042	16,027	11,640	11,430	14,727	15,265
7	13,494	17,482	13,116	12,877	16,065	16,743
8	14,947	18,938	14,756	14,488	17,403	18,465
9	16,400	20,396	16,396	16,097	18,743	19,943
10	17,645	21,851	17,373	17,056	20,081	21,421
11	18,474	23,309	18,352	18,016	21,419	23,142
12	19,513	24,764	19,166	18,818	22,755	24,620
13	20,758	26,221	19,982	19,618	24,095	24,620
14	21,791	27,679	20,798	20,418	25,433	24,620
15	22,618	29,135	21,778	21,379	26,771	24,620

\*There are enrollment costs associated with these MBA programs in addition to tuition. Refer to the [McCombs School of Business office](#) for further information.

## Dell Medical School: Fall 2021 - Spring 2022

Tuition and fees for Dell Medical School are assessed annually, at a rate that remains the same across all four years of continuous undergraduate medical education.

Incoming Class	Year in School	Academic Semester	Texas Residents	Nonresidents	Required Fees
2021	First	Fall	\$9,503	\$16,663	\$1,040
		Spring	9,504	16,663	1,040
2020	Second	Fall	\$9,503	\$16,663	\$1,040
		Spring	9,504	16,663	1,040
2019	Third	Fall	\$9,296	\$16,316	\$1,040
		Spring	9,296	16,316	1,040
2018	Fourth	Fall	\$9,094	\$15,975	\$1,040
		Spring	9,094	15,975	1,040
MD/MBA		Fall	\$38,076	\$44,331	\$1,040
		Spring	38,076	44,331	1,040

## Additional Fees

Flat rate tuition covers most program and service related costs. The following fees are charged to defray the costs of specific programs and services.

**Affiliated studies registration fee.** The fee of \$600 per semester or summer session defrays costs associated with registration, record keeping, and certification for students participating in sanctioned study abroad programs.

**Concurrent enrollment.** When a student registers at two public Texas institutions of higher education at the same time, section 54.011 of the Texas Education Code provides for the following tuition procedure:

1. The student must register first at the institution with the lower minimum tuition and pay the full tuition charge.
2. Normally, only the hourly rate is paid at the second institution. However, if the minimum amount is less at the first institution, the student must pay the difference in the two minimums to the second institution, but not less than the hourly rate.

Other required and optional fees are billed by each institution at its regularly authorized rates.

The University of Texas at Austin does not charge a minimum tuition. A student who registers first at the University (if the University is

the institution with the lower tuition rate) and then at a second public institution must request concurrent enrollment by contacting [tuition@austin.utexas.edu](mailto:tuition@austin.utexas.edu).

**Duplicate fee receipt.** A charge of \$1 is assessed for a duplicate fee receipt. The charge must be paid to the Bursar's Office when the application for a duplicate receipt is submitted. The application must be submitted by the student whose name appears on the fee receipt.

**Field trip fees.** Students in courses that include a field trip are assessed a fee to defray transportation and related costs of the trip.

**Freshman and transfer orientation program fees.** A fee of \$175 is assessed for all first-time freshmen attending a summer orientation program. A fee of \$65 is assessed for new transfer students attending a summer orientation program. Additional room and board charges also apply.

For first-time freshmen and new transfer students enrolling in a summer session or the spring semester, a fee of \$50 is assessed for a one-day orientation program.

**General deposit.** A fee of \$10 is assessed for every student in the first semester of enrollment to help offset the cost of property loss or damage and nonpayment of any University billing. The deposit, less outstanding charges, is returned on request when the student leaves the University with no intention to return. Applications for refund are available [online](#) and in Student Accounts Receivable, MAI 4. A general

deposit that remains without request for refund for four years from the date of the student's last attendance at the University is forfeited to the Student Property Deposit Scholarships.

**In absentia fee.** There is no fee for graduate or undergraduate students with an in absentia registration.

**International student health insurance fee.** International students holding non-immigrant visas are assessed a fee that reflects the actual cost of the premium for health insurance. The fee varies, matching the premium for approved UT System student insurance plans.

**International insurance administrative fee.** A fee to defray the costs associated with complying with the UT System's requirement for all enrolled international students to have valid insurance coverage. The fee is based on the insurance coverage type.

**International student support services fee.** A fee of \$125.00 per semester is assessed to international students to defray costs associated with orientation, immigration advising and compliance, and support services.

**Independent student and research registration fee.** The fee of \$600 per semester or summer session defrays costs associated with registration, record keeping, and certification for students enrolled in international study and research (ISR).

**Joint and cooperative program fees.** The University has agreements with several other University of Texas System institutions that allow students to enroll in courses at the other institution. Tuition and required fees for full-time students are normally paid at the degree-granting campus and allocated by that unit to the other institution involved. Graduate students enrolled at the University may apply for admission to another University of Texas System institution through the appropriate dean's office at that

## Tuition Exemptions

Tuition exemptions are issued only for the period in which a student is currently enrolled; therefore, unless otherwise stated, applications must be submitted no later than the date of commencement at the end of the spring semester or the official graduation date at the end of the summer session or fall semester. Satisfactory Academic Progress must be met in order to maintain eligibility for most exemptions.

Applications and supporting documents for the Hazlewood exemption must be submitted to Veteran Certification in the Office of the Registrar at <https://onestop.utexas.edu/managing-costs/veteran-education-benefits/hazlewood-exemption/>, by the last class day of the semester for which you are seeking exemption.

### Highest Ranking High School Graduate

Who is eligible	What is exempted	Where to apply
Highest ranking graduate of an accredited Texas high school.	Tuition during first two long-session semesters following graduation.	The "To Public Colleges and Universities" certificate, issued by the high school, may be scanned and submitted to <a href="mailto:tuition@austin.utexas.edu">tuition@austin.utexas.edu</a> or brought to MAI 4. Include the student's EID and first semester of use.

### Blind/Deaf Student Exemption

Who is eligible	What is exempted	Where to apply
A blind disabled person, or a person whose sense of hearing is nonfunctional. The student must be a Texas resident.	Tuition General deposit	Provide Student Accounts Receivable, MAI 4, with certification from Texas Workforce Commission (TWC) or the Texas Health and Human Services Commission (HHSC); <a href="http://www.twc.state.tx.us/jobseekers/vocational-rehabilitation-services">http://www.twc.state.tx.us/jobseekers/vocational-rehabilitation-services</a>

institution. Evidence of support from the University should include the approval of the graduate dean. Programs are available only where formal agreements exist between institutions.

**Late registration charge.** A student who registers late is assessed a charge to defray the cost of the extra services required to effect the late registration. Late registration periods are identified in the [Course Schedule](#). In the fall and spring semesters, the late registration charge is \$25 through the fourth class day of a semester, \$50 from the fifth through the twelfth class day, and \$200 after the twelfth class day. In the summer session, the late registration charge is \$25 through the second class day, \$50 from the third through the fourth class day, and \$200 after the fourth class day.

**Matriculation fee.** The \$15 matriculation fee is charged when a student withdraws prior to the first class day and receives a full tuition refund. It is also charged when the student is withdrawn by the University because of a returned check.

**Reciprocal Exchange fee.** The fee of \$500 per semester or summer session defrays the costs associated with registration, record keeping, and certification for students enrolled in study abroad exchange programs.

**Reinstatement fee.** A fee of \$50 is assessed to defray the cost of correcting student and accounting records after repayment of a check for tuition and fees that was returned.

**Returned Check Fees.** All returned checks are assessed a service charge of \$25. Additional fees may apply.

## Exemption for Children of Disabled or Deceased Texas Firefighters and Peace Officers

Who is eligible	What is exempted	Where to apply
Children under 21 of disabled or deceased full-paid or volunteer firefighters; full-paid or volunteer municipal, county, or state peace officers; custodial officers of the Texas Department of Criminal Justice; and game wardens.	Tuition	Texas Higher Education Coordinating Board, Attn: Student Services, PO Box 12788, Austin TX 78711-2788

## Exemption for Children of Prisoners of War or Persons Missing in Action

Who is eligible	What is exempted	Where to apply
Dependent person under 25 years of age who receives majority of support from parent classified by Department of Defense as a Prisoner of War or Missing in Action at time of registration.	Tuition	The University of Texas at Austin, Student Accounts Receivable, Special Billing, PO Box 7398, Austin TX 78713-7398

## Exemption for Children of Professional Nursing Faculty and Staff Members

Who is eligible	What is exempted	Where to apply
The student must be a Texas resident under 25 years of age. The faculty or staff member must be a registered nurse and must be employed or under contract at the School of Nursing during all or part of the academic term for which an exemption is sought. Children of part-time faculty and staff members receive an exemption equivalent to the parent's percentage of employment. Eligibility ends when the student has received an exemption for 10 semesters and/or summer sessions at any institution(s) or has received a baccalaureate degree.	Tuition	The University of Texas at Austin, School of Nursing, Assistant Dean for Administration, 1700 Red River Street, Austin TX 78701, 512-471-9906; <a href="http://nursing.utexas.edu/faculty/">http://nursing.utexas.edu/faculty/</a> "Forms & Policies" (EID required)

## Exemption for Clinical Nursing Preceptors and their Dependents

Who is eligible	What is exempted	Where to apply
The student must be a Texas resident under 25 years of age and must be enrolled at the University. The preceptor must be a registered nurse and must be under a written preceptor agreement with the School of Nursing during the semester for which an exemption is sought. Eligibility ends when the student has received an exemption for 10 semesters and/or summer sessions at any institution(s) or has received a baccalaureate degree.	Tuition up to \$500 per semester	The University of Texas at Austin, School of Nursing, Clinical Placement Coordinator, 1700 Red River Street, Austin TX 78701, 512-471-8039; <a href="https://nursing.utexas.edu/sites/default/files/preceptor_tuition_exemption_form.pdf">https://nursing.utexas.edu/sites/default/files/preceptor_tuition_exemption_form.pdf</a>

## Exemption for Foster and Adopted Children

Who is eligible	What is exempted	Where to apply
<p>A student who was in the care or conservatorship of the Texas Department of Family and Protective Services (DFPS) on the day before their eighteenth birthday; the day of the student's fourteenth birthday if the student was also eligible for adoption on or after that day; or the day of their graduation from high school or receipt of a GED; or was in the care or conservatorship of DFPS through their fourteenth birthday and was then adopted. The student must enroll within three years of the relevant date, but no later than their twenty-fifth birthday.</p> <p>A student who was adopted and was the subject of an adoption assistance agreement under subchapter D, chapter 162, Texas Family Code.</p>	Tuition	Obtain documents from the Department of Family and Protective Services and present them to Student Accounts Receivable, MAI 4.

## Hazlewood Act Exemption for Spouses/Children of Texas Ex-Servicemembers

Who is eligible	What is exempted	Where to apply
<p>Spouses and biological children, adopted children, and stepchildren of members of the United States armed forces who served during a period of conflict identified in the Texas Education Code, Section 54.341.</p> <p>Additional information is available at <a href="https://www.tvc.texas.gov/education/hazlewood/">https://www.tvc.texas.gov/education/hazlewood/</a>.</p>	Tuition in state-supported courses (except, but not limited to, student services, general deposit, optional, travel, and field trip fees)	Veteran Certification in the Office of the Registrar, The University of Texas at Austin, <a href="https://onestop.utexas.edu/managing-costs/veteran-education-benefits/hazlewood-exemption">https://onestop.utexas.edu/managing-costs/veteran-education-benefits/hazlewood-exemption</a>

## Hazlewood Act Exemption for Texas Ex-Servicemembers

Who is eligible	What is exempted	Where to apply
<p>The applicants must have served in the armed forces of the United States during a period of conflict identified in the Texas Education Code, Section 54.341; have entered service at a location in Texas, have declared Texas as their home of record, or have been eligible to be declared a resident in accordance with the Education Code; and meet other requirements stipulated by the Education Code.</p> <p>Additional information is available at <a href="https://www.tvc.texas.gov/education/hazlewood/">https://www.tvc.texas.gov/education/hazlewood/</a>.</p>	Tuition in state-supported courses (except, but not limited to, student services, general deposit, optional, travel, and field trip fees)	Veteran Certification in the Office of the Registrar, The University of Texas at Austin, <a href="https://onestop.utexas.edu/managing-costs/veteran-education-benefits/hazlewood-exemption">https://onestop.utexas.edu/managing-costs/veteran-education-benefits/hazlewood-exemption</a>

## Legacy Act Exemption for Children of Texas Ex-Servicemembers

Who is eligible	What is exempted	Where to apply
<p>The ex-servicemember must meet the Hazlewood Act requirements given above, and the child must be a Texas resident who is 25 years of age or younger on the first day of the semester or summer term; and be a child or dependent of a veteran who has received unused hours.</p> <p>Additional information can be found at <a href="https://www.tvc.texas.gov/education/hazlewood/">https://www.tvc.texas.gov/education/hazlewood/</a>.</p>	Tuition in state-supported courses (except, but not limited to, student services, general deposit, optional, travel, and field trip fees)	Veteran Certification in the Office of the Registrar, The University of Texas at Austin, <a href="https://onestop.utexas.edu/managing-costs/veteran-education-benefits/hazlewood-exemption">https://onestop.utexas.edu/managing-costs/veteran-education-benefits/hazlewood-exemption</a>

## Peace Officers Disabled in the Line of Duty Exemption

Who is eligible	What is exempted	Where to apply
<p>The applicant must be a Texas resident and be classified as an undergraduate.</p>	Tuition in state-supported courses, up to 12 semesters or sessions	Texas Higher Education Coordinating Board, Attn: Student Services, PO Box 12788, Austin TX 78711-2788

## Exemption for the Surviving Spouse and Dependent Children of Certain Deceased Public Servants (Employees)

Who is eligible	What is exempted	Where to apply
Surviving spouses and minor children of those killed in the line of duty while employed in certain public service positions.	Tuition, room and board (textbook stipend)	The University of Texas at Austin, Student Accounts Receivable, Special Billing, PO Box 7398, Austin TX 78713-7398

## Exemption for Senior Citizens

Who is eligible	What is exempted	Where to apply
Those age 65 or older. Applicant must submit copy of birth certificate.	Tuition up to six credit hours	The University of Texas at Austin, Student Accounts Receivable, Special Billing, PO Box 7398, Austin TX 78713-7398

## Exemption for Participants in a Military Funeral

Who is eligible	What is exempted	Where to apply
Students in grades six through 12 and postsecondary students who sound Taps during a military funeral in Texas. The student receives a voucher for the exemption from the funeral director.	\$25 per voucher in tuition	Student Accounts Receivable, MAI 4

## Tuition Waivers

A waiver allows for a portion of a student's tuition not to be paid. The student is responsible for payment of the remaining tuition not covered by the waiver. Waivers are issued only for the period in which a student is currently enrolled; therefore, applications must be submitted no later than the date of commencement at the end of the spring semester or the official graduation date at the end of the summer session or fall semester. Satisfactory Academic Progress must be met in order to maintain eligibility for most waivers.

## Competitive Scholarship Waiver

Who is eligible	What is exempted	Where to apply
A limited number of nonresident and international students who have received a competitive scholarship. The scholarship must be administered by a school-recognized scholarship committee	Nonresident portion of tuition. The student is responsible for payment of resident tuition.	Student's department (undergraduate or graduate student service office).

## Economic Development and Diversification Waiver

Who is eligible	What is exempted	Where to apply
Nonresident and domiciled international students whose families transferred to Texas as part of the state's Economic Development and Diversification Plan.	Nonresident portion of tuition. The student is responsible for payment of resident tuition.	The University of Texas at Austin, Office of Admissions/GIAC, PO Box 7608, Austin TX 78713-7608; <a href="http://www.collegeforalltexas.com/apps/financialaid/tofa2.cfm?ID=567">http://www.collegeforalltexas.com/apps/financialaid/tofa2.cfm?ID=567</a>

## Waiver for Faculty Members, Teaching Assistants, and Research Assistants, and their Dependents

Who is eligible	What is exempted	Where to apply
Employee, or employee's dependent. The employee must have a qualifying job title for at least 20 hours per week. The beginning employment date must be on or before the twelfth class day (fourth class day for a summer term), and the end date must be no earlier than the last class day; these dates are published in the academic calendar. If the dependent is the spouse of the employee, a marriage license must be on file with Special Billing, Student Accounts Receivable, MAI 4.	Nonresident portion of tuition. The student is responsible for payment of resident tuition.	Enrolled students apply directly to the hiring department. Graduate School applicants may indicate interest in a teaching or research assistantship when they apply for admission. <a href="https://utdirect.utexas.edu/acct/fb/waivers">https://utdirect.utexas.edu/acct/fb/waivers</a>

## Good Neighbor Scholarship

Who is eligible	What is exempted	Where to apply
Native-born citizens and residents from nations of the Western Hemisphere other than the United States. Applicants must furnish certified evidence of native-born citizenship and scholastic qualifications.	Tuition.	The University of Texas at Austin, International Student and Scholar Services, PO Box A, Austin TX 78713-8901; <a href="https://global.utexas.edu/issv/advising-services/financial-aid">https://global.utexas.edu/issv/advising-services/financial-aid</a>

## Waiver for International Students Who Hold Visas Allowing for Domicile in the United States

Who is eligible	What is exempted	Where to apply
International students establishing domicile in Texas and meeting residency requirements.	Nonresident portion of tuition. The student is responsible for payment of resident tuition.	The University of Texas at Austin, Office of Admissions/GIAC, PO Box 7608, Austin TX 78713-7608; <a href="https://admissions.utexas.edu/residency">https://admissions.utexas.edu/residency</a>

## Waiver for Mexican Citizens with Financial Need

Who is eligible	What is exempted	Where to apply
A limited number of students from Mexico who have financial need.	Nonresident portion of tuition. The student is responsible for payment of resident tuition.	The University of Texas at Austin, International Student and Scholar Services, PO Box A, Austin TX 78713-8901; <a href="https://global.utexas.edu/issv/advising-services/financial-aid">https://global.utexas.edu/issv/advising-services/financial-aid</a>

## Waiver for Military Personnel Stationed in Texas

Who is eligible	What is exempted	Where to apply
Certain active-duty military personnel and honorably discharged veterans of the US military stationed in Texas, and their spouses and children. Eligibility is determined by the Office of Admissions.	Nonresident portion of tuition. The student is responsible for payment of resident tuition.	The University of Texas at Austin, Office of Admissions/GIAC, PO Box 7608, Austin TX 78713-7608; <a href="https://admissions.utexas.edu/residency">https://admissions.utexas.edu/residency</a>

## Nonresidents Enrolled in the Texas Guaranteed Tuition Plan or Texas Tuition Promise Fund

Who is eligible	What is exempted	Where to apply
Nonresident students whose tuition is paid by the Texas Guaranteed Tuition Plan or the Texas Tuition Promise Fund for the semester for which the waiver is issued.	Nonresident portion of tuition.	The University of Texas at Austin, Student Accounts Receivable, Special Billing, PO Box 7398, Austin TX 78713-7398

## Waiver for Military Veterans, Spouses, and Children Moving to Texas

Who is eligible	What is exempted	Where to apply
Veteran must be eligible for benefits under the federal Post 9/11 Veterans Education Assistance Act of 2008 or another federal law authorizing educational benefits for veterans. Child must be twenty-five years of age or younger on the first day of the semester or summer term for which the benefit is used. Eligibility may be extended if child can provide proof of severe illness or debilitating condition that prevented prior enrollment. Applicant must provide a letter of intent to establish residence in Texas.	Nonresident portion of tuition. The student is responsible for payment of resident tuition.	The University of Texas at Austin, Office of Admissions/GIAC, PO Box 7608, Austin TX 78713-7608; <a href="https://admissions.utexas.edu/residency">https://admissions.utexas.edu/residency</a>

## Third-Party Billing

Agencies outside the University may set up a third-party billing arrangement that pays all or a part of a student's tuition bill. The student is responsible for any amount not covered by the third party. Arrangements must be made in advance with Student Accounts Receivable, MAI 4.

Description	Who is eligible	What is exempted	Where to apply
Post 9/11 GI Bill®	Eligibility is determined by the Department of Veterans Affairs (VA). Degree-seeking students must upload paperwork using the Office of the Registrar, Veteran Certification <a href="mailto:GI_Bill@DocumentUploads">GI_Bill@ Document Uploads</a> portal.	A percentage of tuition and mandatory fees based on the length of active duty service as determined by the VA.	The University of Texas at Austin Office of the Registrar Veteran Certification P O Box 7216 Austin TX 78713-7216 <a href="http://www.utexas.edu/veteran-education-benefits">Veteran Education Benefits</a> website  Begin your process by completing the <a href="#">GI Bill® Questionnaire</a> . For additional questions, contact Veteran Certification, MAI 1, <a href="mailto:gibill@austin.utexas.edu">gibill@austin.utexas.edu</a> , or (512) 475-7540.
Staff Tuition Assistance Program (STAP)	Active employees appointed as full-time for at least 12 continuous months as of the first class day. Eligibility is determined by Human Resource Services.	Tuition for the college in which the employee is enrolled for one eligible course or more than one course not to exceed three credit hours.	Applications for the Staff Tuition Assistance Program are processed through Human Resource Services. <a href="https://hr.utexas.edu/current/career/staff-tuition-assistance-program">https://hr.utexas.edu/current/career/staff-tuition-assistance-program</a>
Teaching assistant/assistant instructor/graduate research assistant tuition reduction	Students employed as teaching assistants, assistant instructors, or graduate research assistants.	Tuition reduction amount is indexed to the number of hours the student is employed.	Student's academic department regarding employment <a href="https://gradschool.utexas.edu/academic-employment">https://gradschool.utexas.edu/academic-employment</a>
Texas Guaranteed Tuition Plan (TGTP)	Students enrolled in the Texas Guaranteed Tuition Plan. Plan enrollment, requirements, and payments determined and maintained by the Texas Comptroller of Public Accounts.	Resident tuition and fees required of all students. The student is responsible for all other fees.	A student's TGTP ID card(s) may scanned and emailed to <a href="mailto:tuition@austin.utexas.edu">tuition@austin.utexas.edu</a> . Include student's EID and first semester to use.
Texas Tuition Promise Fund (TTPF)	Undergraduate students enrolled in the Texas Tuition Promise Fund. Plan enrollment, requirements, and payments determined and maintained by the Texas Comptroller of Public Accounts.	Resident tuition and fees required of all undergraduate students. The student is responsible for all other fees.	The purchaser should authorize use of units, using student's EID, at <a href="http://www.texastuitionpromisefund.com">www.texastuitionpromisefund.com</a> at least 3 weeks prior to the tuition payment deadline each semester to allow for TTPF to submit the information to Students Accounts Receivable.

## Tuition Adjustments

Refunds are applied to any current and outstanding debts owed to the University before releasing to the student. Section 54.006(d) of the Texas Education Code requires that the University refund tuition paid by a sponsor, donor, or scholarship to the source, rather than directly to the student, if the funds were made available through the University.

### Refunds for Students Withdrawing from the University

Students who withdraw from the University receive a refund of a percentage of their tuition. The percentage varies as shown below according to the student's effective withdrawal date.

*Long Session and Summer Session (Whole-Session Classes)*

Official withdrawal date	Percentage refund
Prior to the first class day	100% less \$15 matriculation fee
During the first five class days	80%
During the second five class days	70%
During the third five class days	50%

During the fourth five class days	25%
After the fourth five class days	none

*Summer Session (First-Term, Second-Term, and Nine-Week Classes)*

Official withdrawal date	Percentage refund
Prior to the first class day	100% less \$15 matriculation fee
During the first, second, or third class day	80%
During the fourth, fifth, or sixth class day	50%
After the sixth class day	none

Withdrawal refunds are based upon the effective date on the withdrawal form. Adds and drops are included in the calculation. In some cases, a student may receive two refund checks, one based on dropped courses and one based on withdrawal percentages for remaining courses.

A student who elects to pay their tuition on the installment plan and then withdraws from the University may still owe a portion of the tuition and fees; the installment service charge is not refundable. Likewise, a student who defers their tuition to financial aid and withdraws before the

aid disburses may be responsible for a portion of the tuition. A bar will be placed on the student's record until all financial obligations are met.

Students withdrawn by the University because of a returned check are assessed a \$25 service charge, a \$15 [matriculation fee](#) (p. 37), and a \$50 reinstatement fee. A student withdrawn by the University for scholastic reasons, class cancellations, or other reasons receives a full refund; the matriculation fee is not charged.

A student who withdraws as a result of being called to required military service may choose to receive a tuition refund. More information about withdrawal for active service is given in the section [Withdrawal](#) (p. 58).

A student who withdraws after receiving any cash payment from the Office of Financial Aid may be required to make full or partial repayment. Funds received through the Federal College Work-Study Program are not subject to repayment. Students should contact the Office of Financial Aid for information regarding repayment obligations.

Student Accounts Receivable initiates refunds for all eligible students who submit approved withdrawal petitions to the Office of the Registrar as described in the section [Withdrawal](#) (p. 58). A refund is issued no earlier than thirty days after the date the student paid the initial tuition bill. The refund is sent to the address specified on the withdrawal petition.

A student using Post-9/11 GI Bill® (Chapter 33) who withdraws after being certified to the Department of Veterans Affairs (VA) may be required to make full or partial repayment to the University. Students should contact Office of the Registrar Veteran Certification for information regarding repayment obligations. Student Accounts Receivable will refund tuition and fees paid by the VA to the University. Per Section 1019 of the Johnny Isakson and David P. Roe, M.D. Veterans Health Care and Benefits Improvement Act of 2020, the refund will be sent to the VA. The University will then collect the debt from the student.

## Policy on Return of Unearned Tuition Assistance

The Department of Defense (DoD) Memorandum of Understanding requires The University of Texas at Austin to return unearned Military Tuition Assistance (TA) funds on a prorated basis through 60% of an academic course. The university will not return any TA funds once a student completes 60% of an academic course. Visit the [Student Veteran Services TA page](#) for more information.

## Adjustments for Added and Dropped Classes

Charges for added classes must be paid by the end of the twelfth class day in the fall and spring semesters and by the end of the fourth class day in the summer. Revised tuition bills are not sent to the student when they change their schedule. It is the student's responsibility to check "[My Tuition Bill](#)" or "What I Owe" to see what payments are still outstanding. Failure to pay for additional tuition on time will result in fees being assessed to the student's tuition bill per the Financial Responsibility Statement. Students can determine what they owe by viewing [My Tuition Bill](#).

Overpayments of tuition resulting from classes that a student drops (1) during the first twelve class days in a fall or spring semester; (2) during the first four class days in any summer session will be refunded. No refunds are made for classes dropped after these dates. Tuition refunds begin processing the week after the twelfth (or fourth) class day. They are mailed to the student's local address or deposited into the account the student has designated if an electronic funds transfer

authorization is in effect. The student may contact Texas One Stop at [onestop@utexas.edu](mailto:onestop@utexas.edu) to verify account information.

## Tuition Rebates for Certain Undergraduates

An undergraduate may be eligible for a tuition rebate of up to \$1,000 if, at graduation, they have attempted no more than three semester hours beyond the minimum number of hours required for the degree. The student must meet the following eligibility requirements:

1. The student must not have been enrolled at any institution of higher education before the fall semester 1997.
2. At the time the student earns a first undergraduate degree, they must have attempted no more than three semester hours beyond the minimum number of hours required for the degree. Hours attempted include all courses the student has undertaken, such as transfer credit, courses the student dropped or from which the student withdrew after the date the official enrollment count was taken, developmental courses taken for credit, optional internship and cooperative education courses, courses the student failed, and courses the student repeated. If the student has earned credit by examination for more than nine hours of coursework, the hours in excess of nine are also counted as hours attempted. Courses dropped for reasons that are determined by the institution to be totally beyond the control of the student shall not be counted.

Beginning with degrees awarded on September 1, 2007, or later, course credit is not counted if the student earned it to meet ROTC requirements but it is not required for the degree. Beginning with degrees awarded August 2011, or later, course credit is not counted if it is earned before graduating from high school (except for course credit earned exclusively by examination).

If the student earned a bachelor's degree and a Texas teaching certificate concurrently, required teacher education courses are not counted as hours attempted if they exceed the number of hours of free electives allowed in the bachelor's degree program.

3. The student must have been a Texas resident and must have been eligible to pay resident tuition at all times while pursuing the degree.
4. If the student received a bachelor's degree in architecture, engineering, or any other program that is determined by the Texas Higher Education Coordinating Board to require more than four years to complete, then the student must have graduated within five calendar years after first enrolling in a Texas public senior college or university. If the student's degree is in a field other than those that have been determined to take more than four years to complete, the student must graduate within four calendar years after that first enrollment. Requirement 4 applies only to students who enrolled in a public Texas senior college or university for the first time on or after September 1, 2005.

A student who was unable to meet requirement 4 because of a hardship may seek an exception to this requirement from their dean.

An eligible student should submit a request for a rebate in their dean's office when the student files an application for graduation. The request must be submitted before the official date of graduation. If the student's request for a rebate is denied, they may appeal to the vice provost and registrar in the Office of the Registrar. The rebate may be reduced by the

amount of any outstanding student loan owed to or guaranteed by the State of Texas.

Tuition rebate policies are governed by section 54.0065 of the Texas Education Code and by the rules of the Texas Higher Education Coordinating Board.

If a student does not qualify for a tuition rebate only because of study abroad coursework that exceeds the number of hours required for the degree, then the student may be eligible for an institutional award from the University in place of the tuition rebate. Students who are interested in this institutional award should apply for a tuition rebate. They will be considered for the institutional award if they are eligible.

## Longhorn Fixed Tuition Rebates

An undergraduate who enrolled in the Longhorn Fixed Tuition program may be eligible for an additional \$2,500 tuition rebate if, at graduation, they meet the following eligibility requirements:

1. Resident and Non-Resident undergraduate students must have enrolled in the Longhorn Fixed Tuition before the twelfth class day (fourth class day in summer) of their first semester at The University of Texas at Austin.
2. Student must not have attempted more than three semester credit hours in excess of the minimum number required to complete the degree in the catalog under which they graduate.
3. Students who want to receive the rebate must graduate within four calendar years for a four-year degree program or within five calendar years if the degree requires more than four years to complete.
4. Students must complete at least 60 semester credit hours of coursework counted toward the degree in residence.
5. Student must not have already received a bachelor's degree.
6. A student is required to apply for his/her tuition rebates through his/her dean's office prior to graduation.
7. Resident undergraduate students are eligible for an additional \$1,000 rebate if they meet the criteria for the existing tuition rebate program.

## Short-Term Loans

The University provides short-term tuition loans and emergency cash loans to students. Tuition loans have a one- to three-month repayment period and are applied directly to the student's tuition bill. Emergency cash loans are due in full one month from the date of issue. Web cash loans are limited to one every 30 days. Any subsequent refund of tuition is applied to a tuition or emergency cash loan balance, regardless of the due date of the loan.

## Payment of Fees for Students with Disabilities

The Texas Workforce Commission (TWC) and the Texas Health and Human Services Commission (HHSC) offer payment of tuition and other services to students (normally nonveterans) who have certain disabilities, if the student's vocational objective is approved by a representative of the agency. Application for vocational rehabilitation should be made to [TWC](#).

## Optional Fees

Students may select the following optional fees when they register. Those who select an optional fee for the fall semester pay the academic

year rate. The spring semester rate is available only during the spring semester.

**Analecta fee.** The fee of \$12 entitles the student to a copy of *Analecta*, the University's literary and arts journal, published annually by the Senate of College Councils and the journal's editorial and readers staff. Each issue includes works of fiction, nonfiction, drama, art, and poetry by students from the University as well as other universities worldwide. The year's issue is mailed to the student's permanent address upon publication.

**Cactus fee.** The fee of \$55 entitles the student to a copy of the University yearbook.

**Department of Theatre and Dance Package.** The fee entitles the student to a specified number of tickets to major season productions at no additional cost as long as tickets are available. The fee is \$45 for the academic year or \$22.50 for the spring semester. Associated performance fees may arise in the event of severe and unforeseen disruption to fall or spring programming.

**The Big Ticket** is the annual sports pass giving UT students access to all Texas Athletics home regular season events for just \$175 (plus \$20 processing fee). That's over 120 events each year including football, men's basketball, women's basketball, volleyball, baseball, softball, and Texas Relays! All active full-time UT Austin students are emailed during the summer with their account information. For more information or to purchase, visit [TexasSports.com/BigTicket](https://TexasSports.com/BigTicket) or call 512-471-3333 (Monday through Friday 9 a.m. – 5 p.m. Central).

**Parking permit fee.** Class C, M, or N parking permits purchased in the fall semester enable students to park in any appropriately designated lot or area for the academic year; a permit purchased in the spring is valid through the summer session. The fee for a class C (surface student) permit is \$155 for the academic year; the fee for a class M (motorcycle/moped/motor scooter/motor-assisted bicycle) permit is \$93 for the academic year; the fee for a class N (weeknights and weekends only) permit is \$46 for the academic year. All fees are prorated for permits purchased after September 30.

Only class C, M, and N permits may be purchased during registration. Information about other parking permits available to students is given in [Student Parking](#) (p. 77), along with more information about class C, M, and N permits.

**Texas Performing Arts Bass Pass.** The fee enables a student to purchase tickets for professional touring events presented by Texas Performing Arts at a discount, as long as tickets are available. The fee is \$50 for the academic year or \$35 for the spring semester.

**Student Speaker Series fee.** The fee of \$2 a semester supports the Student Endowed Centennial Lectureship. The endowment is used to bring speakers to the University to lecture, teach, or meet with students.

## Optional Fee Refunds

Refunds for the *Cactus* yearbook may be requested at the Texas Student Media office in the William Randolph Hearst Building (HSM 3.202).

Parking permit refunds may be requested at the Parking and Transportation Services office.

A refund for The Big Ticket is available only upon termination of enrollment with the University. No refunds will be issued after the twelfth class day. If a student attends any athletics event before requesting a refund, then only a pro-rated portion of The Big Ticket will be refunded.

# Student Insurance

## Student Health Insurance Plan

All students are encouraged to have health insurance coverage. The Student Health Insurance Plan is an optional University of Texas System sponsored health insurance plan available to currently enrolled University of Texas at Austin students. Information is available [online](#), or by going to the University Health Services Billing and Insurance Office (SSB 2.106). The Student Health Insurance Plan pays 100% for all covered services at University Health Services and includes in- and- out-of-network benefits for off-campus providers and facilities (deductibles, co-pays and/or coinsurance may apply for off-campus services).

## International Student Health Insurance

The Student Health Insurance Plan described above is mandatory for international students; the cost is included in the student's tuition bill each semester. International students may be eligible to waive the cost and coverage of the Student Health Insurance Plan if they are able to present to International Student and Scholar Services an alternative insurance policy that provides benefits comparable to the Student Health Insurance Plan. Additional information about international students and student health insurance is given in the [International Student and Scholar Services](#) (p. 73) section of this catalog.

## Student Liability Insurance

Students must show evidence of student liability insurance when enrolled in field experience courses that use off-campus facilities if such facilities require the insurance.

## Identification Cards

**Student identification cards.** Every student is required to have a University photo identification card issued by the ID Center which is located on the first floor of the [Flawn Academic Center](#). The proximity-enabled photo ID card is needed for many purposes, including use of the libraries and University Health Services and access to residence halls and other University buildings. ID cards may also be used for purchases at stores that accept Bevo Pay and for admission to athletic and other special events.

Students receive their first ID card at a cost of \$10. This ID card is intended to be used throughout the student's enrollment at the University. It is not replaced unless changes in data are required, the card is defective or damaged through normal wear and tear, or the card is lost or stolen. In some cases, an additional \$10 replacement fee may apply. Students should [report](#) lost or stolen ID cards; found cards should be returned to the ID Center on the first floor of the Flawn Academic Center.

University community members are expected to maintain control and possession of their photo ID cards and to have them in their possession whenever they are on University grounds. The ID card should not be loaned to others, and its benefits are not transferable. Those who lend their cards or use them for fraudulent purposes are subject to disciplinary action. More information is available in the University [Identification Card Policy](#).

**Faculty/staff identification cards.** The ID Center provides all faculty and staff members with an official University ID card. The card allows access to certain buildings and can be used as a campus library card. Upon loss of eligibility, the individual's ID card must be surrendered to an employee's supervisor, Human Resource, or the ID Center. More information about faculty/staff ID cards is available [online](#) and from

the ID Center, which is located on the first floor of the Flawn Academic Center.

For more information, please visit the [ID Center website](#).

## Fees for Nonstudents

**Auditor's fee.** A fee of \$20 a course is required of individuals not registered at the University who wish to audit one or more courses. In accordance with section 54.210 of the Texas Education Code, a person 65 years of age or older may audit a course without paying the fee if space is available. More information about auditing a course is given in [Auditing a Course](#) (p. 32).

**Library card fee for non-University borrowers.** *Please note that the following describes library policy when operating under normal circumstances. During the COVID-19 pandemic, library services described in the following may be limited and in some cases unavailable.* Libraries are open to the public for use of materials. Adult Texas residents who are not members of the University community may borrow materials for home use by purchasing a courtesy borrower card at the Courtesy Borrower Services Desk at the Perry-Castañeda Library, entrance level. A photo ID and proof of Texas residence are required at the time of purchase. The fee may be waived for current members of the Texas Exes, for users who present valid TexShare cards from libraries participating in the TexShare Card Program, and for other users included in reciprocal borrowing agreements in which the University Libraries participates. More information on fees and waivers is published by the [University Libraries](#). Card expiration dates are determined by the period of enrollment, membership, or appointment.

**The Big Ticket guest pass for football season option.** Guest season tickets for football are currently not available. More information is available on the [Texas Longhorn Athletics website](#).

**Recreational and facility use fees.** Recreational Sports memberships, which allow access to University recreational facilities, are available to current faculty and staff members and one adult exercise partner and dependent children of currently enrolled students and current faculty and staff members. The recreational facilities are Gregory Gymnasium, the Gregory Gymnasium Aquatic Complex, the Recreational Sports Center, Belmont Hall, the Commons Recreational Area at the J. J. Pickle Research Campus, Caven Lacrosse and Sports Center at Clark Field, and the Charles Alan Wright Fields at the Berry M. Whitaker Sports Complex. Below are RecSports membership fees. Additional information is available from the Recreational Sports Membership and Guest Services Office, GRE 2.200. A \$15 replacement fee is charged for RecSports identification cards. Find more information at <https://www.utrecsports.org/>.

Membership Category	Membership Fee Per Calendar Month Through 8/31/22
Faculty/Staff Member	\$26
Faculty/Staff +1	\$38
PRC Only Member	\$8
Retired Faculty/Staff	\$13
Retired Faculty Staff +1	\$30
Student +1	\$38
Minor Child (Age 17 and Younger) <sup>8</sup>	\$12
Non-UT Member	\$45
Gregory Gym Locker Rental	\$10
Recreational Sports Center Locker Rental	\$10
Bellmont Hall Locker Rental	\$10

Pickle Research Campus (PRC)	\$10
Locker Rental	
<b>Guest Pass</b>	<b>Daily Fee</b>
Adult Pass	\$12
Minor Child (Age 17 and Younger) <sup>8</sup>	\$6
Official Visitor <sup>9</sup>	Fee Varies

8. Children 17 and under must have adult supervision at all times; certain restrictions apply.

9. Consultants, lecturers, or others with a clearly defined connection with a University agency or program on a short-term basis. Additional information is available from Recreational Sports.

## Academic Policies and Procedures

### Academic Advising

The University of Texas at Austin views sound academic advising as a significant responsibility in educating students. Academic advisors assist students in developing intellectual potential and exploring educational opportunities and life goals. Many people in the campus community contribute to the advising process, including faculty, staff, students, and professional advisors. Through the relationship established between advisor and student within a friendly, helpful, and professional atmosphere, a student has the opportunity to learn about educational options, degree requirements, and academic policies and procedures; clarify educational objectives; plan and pursue programs consistent with abilities, interests, and life goals; and use all resources of the University to the student's best advantage.

Ultimately, the student is responsible for seeking adequate academic advice, for knowing and meeting degree requirements, and for enrolling in appropriate courses to ensure orderly and timely progress toward a degree. Frequent advisor contact provides students with current academic information and promotes progress toward educational goals. The University supports that progress and encourages effective academic advising campus-wide.

The following terms are used throughout the Academic Policies and Procedures section.

**Urgent.** An event that happened after or immediately before the deadline, typically mid-semester or shortly thereafter, that was reasonably unforeseeable and beyond the student's control. This event must have either prevented the student from meeting the deadline or significantly altered the student's ability to successfully complete the class. Consideration will be given if the event or condition occurred before the deadline but significantly worsened after the deadline and the worsening of the condition prohibited the student from successfully completing the class.

**Substantiated.** The student must have credible documentation to corroborate the claims made in the appeal. This documentation may include, but is not limited to, documents from a law enforcement agency, court, or other governmental agency, hospital records or signed statements from physicians, and the bereavement records or obituaries.

**Non-academic.** The reason must be related to some issue outside the normal academic work, such as the onset of a major illness, accident, or sudden death of a family member. Any reasons having to do with the actual performance in the class will be considered academic.

## Credit Value and Course Numbers

**The semester hour.** The credit value of courses is expressed in semester hours. Most courses are designed to require approximately three hours of work a week throughout the semester for each semester hour of credit given; that is, for each hour a class meets, an average of two additional hours of preparation is expected of the student. The time requirement in the laboratory, field, or studio varies with the nature of the subject and the aims of a course, so there is no fixed ratio of laboratory to class hours.

Most courses meet three hours a week in the fall and spring semesters and have a credit value of three hours. In a six-week summer term, courses meet seven and a half hours a week for three semester hours of credit. Fall and spring semester classes that meet on Monday, Wednesday, and Friday are scheduled for an hour (50 minutes with a 10-minute interval between classes); classes that meet on Tuesday and Thursday are scheduled for an hour and a half (75 minutes with a 15-minute interval between classes). Monday/Wednesday/Friday classes normally begin on the hour and are dismissed after 50 minutes; Tuesday/Thursday classes normally begin on the hour or half-hour as appropriate and are dismissed after 75 minutes. Summer session classes normally are scheduled every day for an hour and a half (75 minutes with a 15-minute interval between classes).

**Course numbers.** Each field of study taught at the University is identified by a name and a one-, two-, or three-letter abbreviation. [Lists of fields](#) (p. 168) are included in the *General Information Catalog*. Each course in the field is identified by a number made up of three digits, which may be followed by a letter. Except in the Dell Medical School, the first digit of the course number indicates the credit value of the course in semester hours. Courses numbered 201 through 299 have a value of two semester hours; 301 through 399, a value of three semester hours; and so on. A zero as the first digit indicates that the course is noncredit. Except in the School of Law, and the Dell Medical School, the second and third digits of the course number indicate the rank of the course; if they are 01 through 19, the course is of lower-division rank; if 20 through 79, of upper-division rank; and if 80 through 99, of graduate rank.

Courses that have the same field of study abbreviation and the same course number, but differing credit values, may not both be counted for credit unless the course is designated as repeatable for credit. For example, Mechanical Engineering 136N and 236N may not both be counted because they are substantially the same; however, English 326K and 326L may both be counted.

A course number ending with the letter *A* designates the first half of a two-semester course; *B*, the second half. For example, Music 612A is the first half of Music 612; Music 612B, the second half. A student who completes half of a two-semester course earns half the semester-hour value of the course; for example, Music 612A has a value of three semester hours. A course number ending with the letter *X* designates the first third of a three-semester course; *Y*, the second third; and *Z*, the last third. Each third of the course has one-third the semester-hour value of the course as a whole.

## Classification of Students

Undergraduate students are classified as freshmen, sophomores, juniors, or seniors, based on the number of semester credit hours passed and transferred, regardless of the hours' applicability toward a degree. Semester hours used to determine classification include coursework completed in residence; transferred credit; and credit by examination, extension, and correspondence. A student is a freshman until 30 hours have been accepted; a sophomore until 60 hours have been accepted; a junior until 90 hours have been accepted; and a senior until graduation.

Freshmen and sophomores are referred to as lower-division students; juniors and seniors, as upper-division students.

# Core Curriculum

## Core Curriculum

All students pursuing an undergraduate degree at the University must complete the forty-two-hour statewide Core Curriculum. Entering students are only considered Core Complete if they have submitted a transcript from a Texas public institution of higher education that marks the student Core Complete based on coursework completed prior to matriculation at The University of Texas at Austin. Entering students who submit undergraduate transcripts from any other institution of higher education, or from a Texas public institution of higher education that does not indicate the student is Core Complete, may petition to substitute transferred coursework for specific Texas Core Curriculum requirements.

The list of courses students should choose from to fulfill their Core Curriculum requirements is updated annually and published here. Students should consult the [Course Schedule](#) in order to see the Core Curriculum course offerings in any given semester. For more information on Core Curriculum requirements please see the School of Undergraduate Studies chapter of the [Undergraduate Catalog](#) or visit the [Core Curriculum requirements website](#).

### Core Area

#### First-year Signature Course

One of the following courses, completed during the student's first year in residence:

> Undergraduate Studies 302, 303

Students in the Plan II Honors Program may complete this requirement by taking Tutorial Course 302.

#### English Composition and Writing Flag

Six hours are required.

> Rhetoric and Writing 306

Nonnative speakers of English may take Rhetoric and Writing 306Q instead of Rhetoric and Writing 306. Students in the Plan II Honors Program may take English 303C or Tutorial Course 303C instead of Rhetoric and Writing 306.

> A three-hour course with a Writing Flag designation

The Writing Flagged course counted toward this area of the Core Curriculum may also be used to satisfy other Flag and major requirements outside the Core Curriculum, but may not be used to satisfy any other requirement of the Core Curriculum.

#### Humanities

One of the following courses:

> English 316L, 316M, 316N, 316P

Students in the Plan II Honors Program may complete this requirement by taking English 303D or Tutorial Course 303D.

#### American and Texas Government

Six hours are required. This coursework partially fulfills the [legislative requirement](#). ROTC courses may not be substituted for the Core Curriculum courses in government.

> Government 310L is required for all students and

> Government 306C, 312L, or 312P may be used to satisfy the second half of this requirement.

Transfer students with five or more hours of coursework in U.S. government may complete this requirement of the Core Curriculum by taking Government 106C, which includes Texas Constitutional content that is consistent with the [legislative requirement](#). Rules prescribing which pairs of in-residence and transferred government coursework will fulfill the legislative requirement are very strict. Therefore students who plan to take only one government course on campus and the other at another public college in Texas, or who arrive at The University of Texas at Austin having taken one government course and plan to take the other one at the University, should visit the [Core Curriculum requirements website](#) or the Office of Admissions [website](#) for transfer guidance before choosing courses to pair for this requirement.

#### United States History

Six hours are required; three hours may be in Texas history. This coursework partially fulfills the [legislative requirement](#). ROTC courses may not be substituted for the Core Curriculum courses in history.

Any two of the following courses may be counted:

> African and African Diaspora Studies 320C\*

> History 314K, 315G, 315K, 315L, 317L, 320E\*, 320F\*, 333L, 333M, 334L, 340S, 345J, 345L, 350R, 351P, 355F, 355M, 355N, 355P, 355S, 356G, 356K, 356P, 356R, 356S, 357C, 357D, 365G, 376F

\* Courses marked with an asterisk focus on Texas history.

#### Social and Behavioral Sciences

One of the following courses:

> Advertising 319

> African and African Diaspora Studies 303, 324E

> Anthropology 302, 305, 307, 318L

> Core Texts and Ideas 302, 365

> Curriculum and Instruction 319 (EDC)

> Economics 301, 304K, 304L

> Geography 305, 306C, 319

> Health and Society 301

> History 329U

> Human Development and Family Sciences 304, 304H

> Human Dimensions of Organizations 301

> Kinesiology 311K

> Linguistics 306, 312D, 312E

> Mexican American Studies 301, 309

> Psychology 301, 306

> Radio-Television-Film 303C

> Religious Studies 310

> Social Science 302C, 302D, 302E, 302F

> Sociology 302, 307C, 307D, 307E, 307F, 307G, 307J, 307K, 307L, 307N, 307P, 307Q, 307S, 307T, 308D, 308E, 308F, 308G, 308J, 308K, 308L, 308M, 308N, 309, 309C, 312S, 313K, 318, 319

> Special Education 303

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## Mathematics

One of the following courses:

- > Advertising 309R
- > African and African Diaspora Studies 302M, 350
- > Educational Psychology 308
- > Mathematics 302, 305G, 408C, 408K, 408N, 408Q, 408R
- > Philosophy 313
- > Psychology 317L
- > Sociology 317L
- > Statistics and Data Sciences 301, 302F, 320E, 325H

Students in the Plan II Honors Program may complete this requirement by taking Mathematics 310P.

## Natural Science and Technology, Part I

Two of the following courses:

- > Anthropology 301, 304, 304T
- > Astronomy 301, 307, 309C, 309G, 309L, 309N, 309R, 309S
- > Biology 301E, 302D, 302E, 302F, 302G, 311C, 311D, 315H, 325H, 326M, 446L, 365S
- > Chemistry 301, 301C, 301H, 301N, 302, 302C, 302H, 302N
- > Geography 401C, 301K, 404E
- > Geological Sciences 401, 302C, 302D, 302E, 302G, 302J, 302M, 302N, 302P, 302Q, 303, 303C, 303E, 405
- > Marine Science 307, 308
- > Nutrition 306
- > Physical Science 303, 304; Physics 301, 302K, 302L, 303K, 303L, 309K, 309L, 316, 317K, 317L, 321
- > UTeach-Natural Sciences 306J, 306K, 306L, 306M
- > Science 365

University duplication rules prohibit some classes from counting together. Check the [UGS website](#) for more information.

## Natural Science and Technology, Part II

Courses listed under Natural Science and Technology, Part I may be counted toward this requirement; the following courses may also be counted:

- > Computer Science 302, 303E, 312, 314H
- > Electrical and Computer Engineering 302, 302H
- > Electrical Engineering 302, 302H
- > Engineering Studies 301

## Visual and Performing

### Arts

One of the following courses:

- > African and African Diaspora Studies 311C, 356C, 356D, 356E
- > American Studies 330
- > Architecture 308, 312C, 318K, 318L, 342C
- > Art History 301, 302, 303, 325, 327N, 327R, 327S, 328J, 329J, 329N, 329R, 329T, 330G, 330J, 331J, 331K, 331P, 331S, 332K, 332L, 333L, 335J, 337K, 338J, 338L, 338M, 338V, 339J, 339K, 339L, 339M, 339N, 339P, 339R, 341K, 341L, 342J, 345J, 346K, 346L, 347J, 347K, 347L, 347M, 347N, 348N, 349K
- > Arts and Entertainment Technologies 304, 308C, 336C
- > Classical Civilization 301, 302, 303, 307C, 307D
- > Core Texts and Ideas 350, 351
- > Design 308
- > English 310F, 310S, 321P, 379P
- > Fine Arts 308, 313C
- > Journalism 308S
- > Mexican American Studies 315
- > Music 302L, 303C, 303D, 303E, 303M, 306M, 307, 312C, 334
- > Philosophy 317K, 346K
- > Radio-Television-Film 306
- > Religious Studies 346M
- > Theatre and Dance 301, 307K, 308K, 309K, 317C, 317D

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Total 42

# The Texas Success Initiative

The Texas Success Initiative (TSI) is a state-mandated program designed to improve student success in college. There are two components of the program: (1) an assessment to diagnose students' basic skills in reading, mathematics, and writing and (2) developmental instruction to strengthen academic skills that need improvement.

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Developmental instruction options include a co-requisite model under which students concurrently enroll in a developmental studies course and credit-bearing course for each subject area for which the student is referred to developmental coursework. Co-requisite courses are available only to students who meet both Texas Success Initiative (TSI) eligibility and specific program requirements.

All non-exempt students are required by law to take the TSI Assessment (TSIA), which is the only college-readiness assessment approved by the Texas Higher Education Coordinating Board. Students admitted to The University of Texas at Austin may register to take the TSIA by completing this [form](#). If a student chooses to take the TSIA at another institution, it is the responsibility of the student to see that scores are sent to the University's TSI office.

A student may be exempt from all TSI requirements under any one of the following conditions:

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- The student has earned a bachelor's degree or an associate degree.
- The student is serving on active duty as a member of the armed forces of the United States, the Texas National Guard, or as a member of a reserve component of the armed forces of the United States and has been serving for at least three years preceding enrollment.
- The student was honorably discharged, retired, or released from active duty as a member of the armed forces of the United States or the Texas National Guard or served as a member of a reserve component of the armed forces of the United States on or after August 1, 1990.
- The student is a non-degree-seeking or a non-certificate-seeking student.
- The student has attended another Texas public institution of higher education and has been determined to have met readiness standards by that institution.
- The student has transferred to the University from a private or independent institution of higher education, an accredited out-of-state institution of higher education, or an international institution of higher education and has completed college-level coursework, as determined by the University.

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A student may be exempt from one or more TSI requirements under the following conditions:

- For SAT scores:
  - A student with a math score of 530 or higher is exempt from the math requirement.
  - A student with an Evidence-Based Reading and Writing (EBRW) score of 480 or higher is exempt from the English Language Arts and Reading (ELAR) requirement.
- For ACT scores:
  - A student with an ACT composite score of at least 23 and a math score of at least 19 is exempt from the math requirement.

- A student with an ACT composite score of at least 23 and an English score of at least 19 is exempt from the English Language Arts and Reading (ELAR) requirement.
- For STAAR scores:
  - A student with a score of at least Level 2 on the STAAR English III end-of-course (EOC) is exempt from the English Language Arts and Reading (ELAR) requirement.
  - A student with a score of at least Level 2 on the STAAR Algebra II end-of-course (EOC) is exempt from the math requirement.
- For GED scores:
  - A student with a minimum score of 165 on the Mathematical Reasoning subject test is exempt from the math requirement.
  - A student with a minimum score of 165 on the Reasoning Through Language Arts (RLA) subject is exempt from the English Language Arts and Reading (ELAR) requirement.
- For HiSET scores:
  - A student with a minimum score of 15 on the Mathematics subtest is exempt from the math requirement.
  - A student with a minimum score of 15 on the Reading subtest and a minimum score of 15 on the Writing subtest, including a minimum score of 4 on the essay, is exempt from the English Language Arts Reading (ELAR) requirement.

SAT, ACT, STAAR, GED, and HiSET scores used to support an exemption must be less than five years old. Students who fail to meet the minimum passing standards on the TSIA are required to enroll in a developmental education course designed to strengthen skills in reading, writing, or mathematics. Students will meet with a TSI advisor to decide which course is best suited to their individual needs. For further information, students may visit the [Texas Success Initiative website](#).

## Quantity of Work Rule

The policies described in this section apply to to undergraduate, graduate, Pharm.D., and law students.

### Full-Time and Half-Time Enrollment

A student's enrollment status is determined by the number of credit hours for which the student is enrolled in residence in a semester. University Extension semester-based coursework is included in the total along with in-residence coursework. The following table shows the minimum number of hours required.<sup>1</sup>

## Enrollment Status

### Fall or Spring

	Undergraduates	Graduate students	Pharm.D. students	Law students
Full-time	12 hours	9 hours	9 hours	10 hours
Half-time	6 hours	5 hours	5 hours	5 hours

### Summer

	Undergraduates	Graduate students	Pharm.D. students	Law students
Full-time	12 hours	3 hours	3 hours	6 hours
Half-time	6 hours	2 hours	2 hours	3 hours

A student is also considered to be enrolled full-time if enrolled in a cooperative engineering course, taking a reduced course load because of a documented disability, or enrolled in a specific course that carries no hours of credit. An undergraduate enrolled in at least six hours of coursework in the student's semester of graduation may also be considered full-time; the student's dean must submit a request to the registrar's office that the student's enrollment status be changed from half-time to full-time.

**Course Load Reduction.** Approval of requests for course load reductions are always the prerogative of the academic dean when medical reasons are given. [Applications to request consideration of a course load reduction should be submitted to Services for Students with Disabilities](#). Services for Students with Disabilities will request a recommendation from the UHS executive director and chief medical officer. Once the executive director and chief medical officer signs the application, UHS will submit it to the appropriate dean's office for a final decision.

<sup>1</sup> Graduate Quantity of Work rules apply to the Pharm.D. program.

## Maximum Hours in the Fall and Spring Semesters

**Undergraduates.** An undergraduate student may not register for more than 17 semester hours in any long-session semester without the approval of their dean, unless the degree plan published in the undergraduate catalog for the student's major specifies otherwise.

**Graduate students.** The maximum course load for a graduate student is 15 semester hours. A heavier course load must have the recommendation of the graduate advisor and the approval of the graduate dean. It is permitted only under exceptional circumstances.

**Pharm.D. students.** A Pharm.D. student must register for a minimum of 12 semester hours and may not register for more than 17 semester hours

in any long-session semester without the approval of their dean, unless the degree plan published in the undergraduate catalog for the Pharm.D. major specifies otherwise.

**Law students.** The maximum course load for a law student is 16 semester hours. In rare situations, the Assistant Dean for Student Affairs may, for good cause shown, permit a student to register for a maximum of 17 hours. Law students may take courses in other schools and colleges only with the express prior permission of the dean. Normally, a student may not take a course in another school or college, except an ROTC course, in addition to the maximum load in the School of Law.

### Maximum Hours in the Summer Session

**Undergraduates.** Except as permitted by their academic dean, no undergraduate student may register for more than 14 semester hours

in a 12 week summer session or for more than eight semester hours in either six-week term. A student whose maximum period of summer registration is nine weeks may not register for more than ten semester hours except as permitted by their academic dean.

**Graduate students.** The maximum course load for a graduate student is 12 semester hours in a 12 week summer session. A heavier course load must have the recommendation of the graduate advisor and the approval of the graduate dean. It is permitted only under exceptional circumstances.

**Pharm.D. students.** A Pharm.D. student must register for a minimum of 3 semester hours in a 12 week summer session, beginning the summer preceding the third professional year.

**Law students.** The maximum course load for a law student is 16 semester hours in a 12-week summer session. In rare situations, the Assistant Dean for Student Affairs may, for good cause shown, permit a student to register for a maximum of 17 hours. Law students may take courses in other schools and colleges only with the express prior permission of the dean. Normally, a student may not take a course in another school or college, except an ROTC course, in addition to the maximum load in the School of Law.

## Minimum Hours in the Fall and Spring Semesters

**Undergraduates.** An undergraduate student may not carry fewer than 12 semester hours of coursework without the approval of their academic dean. Failure to obtain approval for a reduced course load may jeopardize the student's continuance in school. A student who is a minor must present a written statement from a parent or guardian accepting the conditions under which permission to carry a reduced course load is granted.

An international undergraduate student must have written permission from the International Office as well as from their dean to carry fewer than 12 hours.

**Graduate students.** Course load requirements for graduate student academic employees are given on that page in this section. Graduate students who are not also academic employees are not subject to minimum course load requirements.

An international graduate student must have written permission from the International Office as well as from their dean to carry fewer than nine hours.

**Pharm.D. students.** A Pharm.D. student must register for a minimum of 12 semester hours in any long-session semester.

**Law students.** A first-year law student may not register for less than 16 hours in the first long semester nor less than 14 hours in the second long semester without special permission of the Assistant Dean of Student Affairs. A minimum load of 10 semester hours is required of all other law students with 20 semester hours of credit or more.

## Minimum Hours in the Summer Session

There is no minimum course load in the summer session.

## Undergraduate Student Employees

An undergraduate student's combined University employment and semester-hour course load may not exceed 40 hours a week in any semester or summer term. Any academic unit may require a lower work-study load of students in the unit who are employed by the University. A student who wishes to exceed the maximum work-study load set by

their college must have the approval of the dean of the college. More information is available at the student employment [website](#).

## Graduate Student Academic Employees

A "graduate student academic employee" is a graduate student who is also employed by the University under one of the following titles: assistant instructor, teaching assistant, assistant (graduate), academic assistant, graduate research assistant, and tutor (graduate). To hold one of these positions, a student must have no unfulfilled conditions imposed by the Graduate School, must be in good academic standing, and must be making satisfactory progress toward a degree. Graduate student academic employees must be registered for at least nine semester hours in a long-session semester or at least three semester hours in a summer session, in any combination of summer terms.

Student employment at UT Austin in any student academic job title may not total more than 20 hours a week during the student's first two fall or spring semesters of enrollment or more than 30 hours a week during subsequent fall or spring semesters. International student employment may not total more than 20 hours a week during any fall or spring semester without the approval of the International Office and the graduate dean.

Graduate student academic employees may not accept payment from a student for tutoring services, except on the recommendation of the department chair and with the approval of the graduate dean. If approved, the student may tutor only in a course with which they have no connection.

## Evaluation

Faculty members are free to develop their own methods of evaluating the performance of students in their classes, both undergraduate and graduate, but they are required to make the methods of evaluation to be used known in writing by the first class day. Responsibility for assuring adequate methods of evaluation rests with departmental faculties and is subject to administrative review. In courses with multiple sections, departments should provide for necessary coordination. Materials used in evaluating a student's performance must be collected by the instructor at or before the regularly scheduled final examination. The final examination is a common method of final evaluation in courses.

## Grades

Letter grades are used to record the instructor's evaluation of student performance in a course. The following grades are used: A, A-, B+, B, B-, C+, C, C-, D+, D, D-, and F.

To receive credit for a course, an undergraduate student must earn a grade of at least D-. To include a course in the Program of Work for a graduate degree, a graduate student must earn a grade of at least C. More information about the Program of Work is given in the [Graduate Catalog](#). In addition to earning adequate grades in courses, undergraduates must have a cumulative University grade point average of at least 2.00 to maintain satisfactory progress toward a degree; graduate students must maintain a graduate grade point average of at least 3.00. Information about these requirements is given in the section [Scholastic Probation and Dismissal](#) (p. 60). Computation of the grade point average is explained in the section [Computation of the Grade Point Average](#) (p. 53).

Grades are given by semester; however, in a course extending through two or three semesters, credit is not counted toward the degree until all semesters have been completed.

Members of the faculty are not authorized, without the academic dean's approval, to withhold a final grade or to defer reporting a final grade at the end of the semester other than by the use of the symbol *X*, described in [Symbols](#) (p. 52). If a grade is withheld without the dean's approval, the grade may not be added to the official records later without the written approval of the academic dean. Issues involving withholding or deferring grades for graduate students are handled by the deans of the colleges and schools.

After a grade has been reported to the registrar, it may not be changed unless an error was made by the instructor. A college or school may approve an appeal for change of final grade for a semester prior to the previous long semester, but only for the most compelling nonacademic reasons. If approved, the appeal must be signed by the dean or the appropriate associate dean of the college/school. For graduate students, this is the graduate dean or the associate dean for graduate student services.

## Symbols

Under specific conditions, instructors may use a symbol rather than a letter grade to report a student's standing in the semester's work. The following symbols are used:

CR	Credit
NC	No credit
Q	Course was dropped
W	Student withdrew from the University
X	Temporary delay of course grade
I	Permanent incomplete
*	Course is continuing
S	Satisfactory
U	Unsatisfactory
#	Grade was not submitted in time for this report
Z	Student is registered on the pass/fail or credit/no credit basis

## Symbol *X*: Temporary Delay in Reporting the Final Course Grade

A student is expected to complete a course, including a self-paced course, in a single semester, summer term, or summer session. If the course is not completed as expected, the student normally will not be given additional time to complete it, or allowed to complete additional work to achieve a better grade. In rare instances, for nonacademic reasons and at the discretion of the instructor, a temporary delay of the final course grade, symbol *X*, may be recorded.

**Improper uses of the symbol *X*.** A student must not be assigned the symbol *X* to provide (1) the opportunity to raise a grade for any reason other than the approved reasons cited below; (2) time to prepare coursework in addition to that assigned the entire class; or (3) time to repeat the entire course.

**Approved uses of the symbol *X*.** The symbol *X* is not issued for student or faculty convenience; it may be issued for one of the following reasons only in the case of compelling, nonacademic circumstances beyond the student's control.

- Missing the final examination.** The student is unable to take a final examination because of illness or for another nonacademic reason. A physician's statement or other satisfactory verification is required.
- Incomplete classroom assignment.** The student has not been able to complete the required class or laboratory assignments for a reason other than lack of adequate effort. A request for temporary delay of the final course grade because of incomplete class or laboratory

work can be made only if the student has a passing average on the classwork or laboratory work already completed and has taken and passed the final examination (unless a final examination is not given in the course or the student is unable to take the examination for reasons indicated in the previous paragraph).

- Reexamination petition.** Only a student who has a grade average of at least *C-* on all classwork and laboratory work submitted before the final examination may request a temporary delay of the final course grade because the student failed the final examination, which is the examination given during the final examination period as defined in the official examination schedule. If the instructor denies the student's reexamination petition, the student's final course grade remains as originally determined. If the instructor grants the petition, and the student earns a grade of at least *C-* on the reexamination, then the instructor substitutes the reexamination grade for the original examination grade in determining the student's final course grade. If the instructor grants the petition, and the student earns a grade on the reexamination of less than *C-*, then a final course grade of *F* must be recorded.

**Assignment of the symbol *X* by the registrar.** If a faculty member fails to report a grade for a student, the registrar enters the symbol *X*; an *X* is also entered for a student who is given the symbol *CR* by the instructor when the student is not registered for the course on the pass/fail or credit/no credit basis. In either case, the student should contact the instructor promptly so that a final grade may be reported to the registrar. If no final grade is reported, the symbol *X* is converted to a grade of *F* or the symbol *I* as described in the following section.

## Replacement of the Symbol *X* with a Grade or the Symbol *I*

### Undergraduates

If an undergraduate student receives the symbol *X* in a course, the student must complete the requirements for the course and the instructor must report a final course grade by the last date for grade reporting in the next long-session semester, or an *F* will be recorded as the final grade in the course. The period for completion of the coursework may be extended only for unusual circumstances beyond the student's control, as recommended by the instructor and approved by the student's academic dean. A student who has received an *X* in a course may not register for that course again until a final grade has been recorded, unless the course is one that may be repeated for credit.

The registrar will notify the student when a grade change is recorded.

While the symbol *X* appears on a student's record, the course for which the symbol is recorded is not included in the student's University grade point average. When the final grade has been recorded as described above, then the course is included in the student's grade point average. More information about the grade point average is given in [Computation of the Grade Point Average](#) (p. 53).

### Graduate students

If a graduate student receives the symbol *X* in a course, the student must complete the course requirements by the last class day in their next long-session semester of enrollment; the instructor must report a final grade by the end of the grade reporting period in that semester. If these deadlines are not met, the symbol *X* is converted to the symbol *I* (permanent incomplete). If the student is not enrolled during a long-session semester for 24 months following the end of the semester in which the *X* is reported, and the instructor does not report a final grade, then the symbol *X* is converted to the symbol *I*. The symbol *I* cannot be converted to a grade.

The period for completion of course requirements may be extended only under unusual circumstances beyond the student's control and only upon the recommendation of the instructor and the approval of the graduate dean.

The registrar will notify the student when a grade change is recorded.

A course for which the symbol *X* or *I* is recorded is not included in the graduate grade point average and may not be listed on the student's Program of Work. When the symbol *X* is converted to a grade as described above, the course is included in the graduate grade point average and may be listed on the Program of Work. More information about the graduate grade point average is given in [Computation of the Grade Point Average](#) (p. 53); more information about the Program of Work is given in the [Graduate Catalog](#).

## Symbols *CR* and *NC*

Some courses must be taken for a letter grade; others must be taken on the pass/fail or credit/no credit basis. These courses are identified in the [General Information Catalog](#) and the [Course Schedule](#). If registration for a course is not limited to the letter-grade basis, then the student may choose to register for credit rather than for a grade. Undergraduate, Law, Medical, and PharmD students register on the pass/fail basis and earn either the symbol *CR* (credit) or a grade of *F*; graduate students register on the credit/no credit basis and earn either the symbol *CR* or the symbol *NC* (no credit).

The student should choose the pass/fail or credit/no credit option at the time of registration and may not change the grading basis in a course after the deadline given in the [Academic Calendar](#) (p. 7). Undergraduates may not change the grading basis in a course more than once.

Coursework requirements and methods of evaluation in a course must be the same for students registered on the pass/fail or credit/no credit basis as they are for students registered on the letter-grade basis.

## Pass/Fail

Rules affecting registration on the pass/fail basis apply to all courses taken by an undergraduate.

An undergraduate who registers for a course on the pass/fail basis and earns a grade of *D-* or better is awarded the symbol *CR* for the course; if the student fails the course, a grade of *F* is awarded. If the student receives the symbol *CR*, the course is not included in the grade point average; if the student receives a grade of *F*, the course is included in the University grade point average.

Provided the following conditions are met, an undergraduate may take a limited amount of coursework on the pass/fail basis as part of the hours required for the student's degree. Other regulations may be imposed by the student's college or school.

1. The course must be in an elective subject outside the student's major field.
2. The student must have received at least 30 hours of college credit before registering for any course on the pass/fail basis, unless the course is offered only on the pass/fail basis.
3. The student may take no more than two courses a semester on the pass/fail basis.

Students in the College of Liberal Arts and students pursuing the Bachelor of Arts in the College Natural Sciences may take up to 16 semester hours of classroom or correspondence work in elective courses on the pass/fail basis. Students in the College of Natural Sciences pursuing a Bachelor of Science or a Bachelor of Science and Arts may take up to six semester hours of classroom or correspondence work in

elective courses on the pass/fail basis. Plan II students may take up to 19 semester hours in elective courses on the pass/fail basis. All other undergraduates may take up to five one-semester courses, including correspondence courses, on the pass/fail basis.

If students decide to major in a subject in which they have taken a course on the pass/fail basis, it is the prerogative of the department to decide whether or not the course will count toward degree requirements.

Each department may offer as many as two courses in its major entirely on the pass/fail basis.

**Credit by examination.** Undergraduates may earn credit by exam on the pass/fail basis in required courses. Accepting credit by exam with the symbol *CR* does not reduce the number of elective courses for which the student may register on the pass/fail basis. (More information about credit by examination is given in [Course Placement and Credit by Examination](#) (p. 54).)

## Credit/No Credit

Rules affecting registration on the credit/no credit basis apply to all courses—undergraduate, graduate, and professional—taken by a graduate student.

The student must have the graduate advisor's approval to take a course on the credit/no credit basis. There is no limit on the number of courses a graduate student may take on this basis. However, up to 20 percent of the hours on the Program of Work for a master's degree may have been taken on the credit/no credit basis, and no more than a comparable portion of the Program of Work for a doctoral degree. (Additional information about the Program of Work is given in the [Graduate Catalog](#).)

Performance at the level of *C* or above is required to earn credit (*CR*) for a course taken on the credit/no credit basis. Courses taken on the credit/no credit basis are not included when the grade point average is computed.

## Symbols *S* and *U*

The symbols *S* (satisfactory) and *U* (unsatisfactory) are assigned only in developmental studies (DEV) courses. These courses are not included in the student's grade point average.

## Repetition of a Course

If a student repeats a course and has two or more grades, all grades and all semester hours are used to calculate the University grade point average and to determine the student's scholastic eligibility to remain in school. The official grade in a course is the last one assigned.

Students enrolled in any of the following colleges and schools may not repeat for credit a course in which they have earned a grade of *C-* or better: the McCombs School of Business, the Moody College of Communication, the Cockrell School of Engineering, the College of Liberal Arts, the College of Natural Sciences, the School of Nursing, and the College of Pharmacy.

## Computation of the Grade Point Average

While a student's performance in a course is represented by a letter grade, a grade point average is used to represent the student's academic performance more broadly. For undergraduates, the official grade point average is called the cumulative University grade point average; the official grade point average for graduate students is called the graduate grade point average. Official grade point averages are calculated by the

registrar and appear on the student academic record maintained by the registrar.

The following numerical equivalents of letter grades are used in the calculation of both the cumulative University grade point average for undergraduates and the graduate grade point average:

Letter grade	Grade points	Letter grade	Grade points
A	4.00	C	2.00
A-	3.67	C-	1.67
B+	3.33	D+	1.33
B	3.00	D	1.00
B-	2.67	D-	0.67
C+	2.33	F	0.00

## Undergraduate Students

The cumulative University grade point average for an undergraduate includes all work undertaken at The University of Texas at Austin (including credit by examination, correspondence, and extension) for which a letter grade is recorded. Courses in which the symbol *I*, *Q*, *W*, *X*, *S*, *U*, or *CR* is recorded are excluded. (Note: Since September 15, 2006, the University has awarded only the symbol *CR*, rather than a letter grade, for credit earned by exam. As a result, credit earned by exam and recorded since that date is not included in the student's cumulative University grade point average. Through September 15, 2006, students chose either a letter grade or the symbol *CR* for credit earned by exam; credit by exam that was recorded with a letter grade is included in the student's cumulative University grade point average.)

## Graduate Students

The graduate grade point average includes all upper-division undergraduate and graduate courses in which the student earns a letter grade while enrolled in the Graduate School; the following are excluded: undergraduate courses taken through the University's TEXAS Extended Campus; courses for which the symbol *Q*, *W*, *X*, *I*, *CR*, or *NC* is recorded; graduate or undergraduate courses the student took at the University before enrolling in the Graduate School; credit earned by examination; and courses taken at other institutions. The graduate grade point average also excludes grades in all undergraduate courses the student took from fall 1999 through summer 2008; upper-division undergraduate courses the student took as a graduate student before fall 1999 and after summer 2008 are included.

## Correspondence Work by Resident Students

Students enrolled in residence must have the prior approval of their dean to count correspondence work toward degree requirements. Correspondence courses taken from The University of Texas at Austin and used toward a degree at the University are subject to the same pass/fail rules that apply to courses taken in residence; information about pass/fail registration is given in [Symbols CR and NC, Pass/Fail](#) (p. 52).

## Testing and Evaluation Services

Testing and Evaluation Services (TES) coordinates University testing programs, including examinations for course credit and placement, and serves as a test center for many examinations offered worldwide:

- College Level Examination Program (CLEP)
- Graduate Record Examinations (GRE) General Test and Subject Tests

- Praxis Series (Professional Assessments for Beginning Teachers)
- Test of English as a Foreign Language (TOEFL)

Information about academic placement and credit by examination as well as worldwide test programs is available at the [TES website](#).

## Course Placement and Credit by Examination

Students at the University may earn credit and determine course placement by examination. Many exams are recommended for enrollment in certain courses, while others are optional; most serve as a basis for course credit.

Any current, former, or prospective University student may attempt to earn credit by exam for any required or elective undergraduate course, provided the student has neither passed nor failed that course at the University or at any other collegiate institution. The sole exception to this policy is when a student has received transfer credit for a course with fewer semester hours than the corresponding University course carries; in those instances, the student may earn credit by exam for the University course. Additional eligibility requirements may be established by the academic department awarding credit, with the approval of the dean of the college or school. Information about additional requirements is available from [Testing and Evaluation Services](#) (p. 54) (TES) and from the academic department.

Credit earned by examination satisfies degree requirements in the same way as credit earned by passing a course, except that it does not count as credit earned in residence. Credit earned by examination does not jeopardize eligibility for scholarships that require freshman standing. Credit earned by examination is designated on the student's transcript with a grade of 'CR,' and does not impact the student's GPA. The student's official transcript does not reflect unsuccessful attempts to earn credit by examination.

A student's academic dean may approve an exception to the course placement and credit by exam policies for compelling academic reasons. If the exception involves the student's eligibility to be tested or to receive credit by exam in a particular course, the exception must also be approved by the department in which the course is offered.

All tests administered at the University for course placement and credit by exam require a fee. Information, including the testing schedule, eligibility requirements, test descriptions, sample questions, and the amount of test fees (including a \$25 nonrefundable test registration fee), is available at the [TES website](#).

## Claiming Placement and/or Credit

A student who has earned a credit-eligible score by exam has the option of using the score as a course prerequisite by claiming "placement only," or by claiming "credit only." If the student claims credit, TES reports the credit to the registrar's office and the credit becomes part of the student's academic record. Credit by examination cannot be reported to the registrar for former students who are prohibited from enrolling in Texas public colleges and universities due to noncompliance with Texas Success Initiative regulations. If the student wishes to use the test score as a course prerequisite without claiming credit, they may use the qualifying score, after consulting their academic advisor, to enroll in the subsequent course. In this case, the course does not appear on the student's academic record. A student who uses a test score for placement may later petition for course credit, but once the score has been used for course credit it may not be changed to placement only.

A fee is assessed for using the test score for either placement or credit. The [TES website](#) gives complete instructions for petitioning and paying for placement and/or credit.

Although prospective students may take examinations to establish their eligibility to receive credit or placement, credit is awarded only to officially enrolled students and former students. Enrollment on the twelfth class day of a semester or the fourth class day of a summer term constitutes official enrollment.

In deciding whether to claim credit by exam, students should consider the impact of the credit on their eligibility for a [tuition rebate](#) (p. 44); and the possibility that they will be charged [additional tuition](#) (p. 33) if they have excessive credit. They should also consider their program requirements, as well as any residency requirements. It is strongly advised that a student speak with their academic advisor prior to claiming credit by exam.

## Examinations for Course Placement

Most of the tests mentioned below are given on the University campus immediately before each semester and before the first summer term, and at least once each fall and spring semester.

1. **Placement in languages.** Foreign language placement tests serve not only to determine the level of work appropriate for students but also as the basis for credit by exam, which normally may be earned in lower-division courses. Credit by exam may be used to absolve a high school unit deficiency or to fulfill degree requirements. Language credit that exceeds degree requirements often may be used as elective credit.

For course placement and credit by examination, the University uses the University of Wisconsin College-Level Placement Test in French; the College-Level Examination Program (CLEP) Test in German Language: Levels 1 and 2; and The University of Texas at Austin tests for credit in American Sign Language, Chinese, Hindi, Japanese, Korean, Latin, Polish, Russian, and Spanish. Information about the language tests and in some cases, sample questions, are available at the [TES website](#) and from the TES office.

Students who have taken either a College Board Advanced Placement (AP) Examination in Chinese, French, German, Italian, Japanese, Latin, or Spanish or any International Baccalaureate (IB) Examination in a foreign language do not need to take the corresponding recommended placement test, because the AP or IB examination results can be used for placement. Students should contact TES for information about foreign language tests not listed in this section.

Students with transfer credit in a foreign language are strongly encouraged to take the placement test before enrolling in further coursework in that language; however, in most languages, students with transfer credit are not required to take the placement test.

Students without transfer credit but with knowledge of American Sign Language or a foreign language, however acquired, are strongly encouraged to take the placement test before enrolling in a course in that language. However, some languages, such as Spanish and Chinese, require students to take the placement test before enrolling in a language course. Please contact the TES office for additional information.

2. **Placement in mathematics.** Students whose degree programs allow credit for Mathematics 305G may take the UT Exam for M305G (Pre-Calculus) Credit. Students that need calculus for their major must take the UT Math Assessment (UTMA) before enrolling in a calculus

course. For more information about the UT Math Assessment, including which students must complete the exam and a list of exemptions, please visit the College of Natural Sciences [website](#).

## Additional Examinations

The following tests serve as bases for placement and credit by examination at the University.

1. **Placement in rhetoric and writing.** A student must have an eligible score on the ACT Writing or the SAT Writing and Language Test to receive credit for Rhetoric and Writing 306. A score on the Advanced Placement (AP) Examination in English Language and Composition or transfer credit for Rhetoric and Writing 306 may also be used for credit and placement. Additional information is available from TES. International students whose native language is not English must submit satisfactory scores on the Internet-based Test of English as a Foreign Language (TOEFL iBT) for admission to a lower-division rhetoric and writing course.
2. **College Board Advanced Placement (AP) Examinations.** Credit is granted to students who have earned satisfactory scores of 3 or higher on the College Board Advanced Placement Examinations in Art (Art History and Studio Art), Biology, Chemistry, Chinese, Computer Science, English, European History, French, German, Human Geography, Italian, Japanese, Latin, Macroeconomics, Mathematics, Microeconomics, Music Theory, Physics, Psychology, Spanish, Statistics, United States Government and Politics, United States History, and World History. The AP Examination in US Government and Politics is supplemented with test items on Texas government; these additional items are administered only at the University. Advanced Placement Examinations are offered only once each year, in May, at specific high schools across the country. More information about AP Examinations is published by the [College Board](#).
3. **College-Level Examination Program (CLEP).** The CLEP examinations in American Government, American Literature, Calculus, English Literature, German Language: Levels 1 and 2, Principles of Macroeconomics, Principles of Microeconomics, Introductory Psychology, and Introductory Sociology are used as bases for credit by examination. The tests in American Government, American Literature, and English Literature are supplemented with items prepared by University faculty members; these items are available only on the University campus. Information about locally prepared items may be obtained from TES. All CLEP examinations used by the University as a basis for credit by exam are given on campus on an ongoing basis.
4. **International Baccalaureate (IB) Higher-Level Examinations.** Credit is granted by the University to students who earn satisfactory scores on the IB Higher-Level Examinations in Arabic, Biology, Chemistry, Chinese, Computer Science, Danish, Dutch, Economics, English, French, Geography, German, Hebrew, Hindi, History (concentrations in Africa, the Americas, Europe, and Islamic History), Italian, Japanese, Korean, Mathematics, Norwegian, Philosophy, Physics, Portuguese, Psychology, Russian, Social and Cultural Anthropology, Spanish, Swedish, and Visual Arts.
5. **International Baccalaureate (IB) Diploma.** Students who have earned an IB diploma are awarded credit based on scores of 4 or higher on IB Higher-Level (HL) and Standard-Level (SL) examinations as described by Texas Education Code section 51.968. Before claiming the credit, students should consider the impact of these hours on their eligibility for a [tuition rebate](#) (p. 44); and the possibility that they will be charged [additional tuition](#) (p. 33) if they have excess credit. Each student is strongly encouraged to discuss these issues with an

academic advisor in their college before claiming credit. The student and advisor should also discuss the student's academic preparation for subsequent courses based on IB test scores. Credit by exam is awarded as described below to students who have earned an IB diploma and who are admitted as freshmen.

- a. All students who submit satisfactory scores on the IB-HL Examinations listed in item 5 above receive credit by exam, whether or not they have also earned the IB diploma.
  - b. Students who submit scores of 4 or higher on HL exams in the subjects listed in item 5 or in other IB subjects receive credit by exam if they have also earned the IB diploma.
  - c. Students who submit scores of 4 or higher on IB-SL Examinations receive credit by exam if they have also earned the IB diploma.
6. **The University of Texas at Austin tests for credit in Biology, Chemistry, Computer Science, Government, Hindi, History, Latin, Physics, and Polish.** Eligible students can earn credit for specified courses in these fields. Descriptions of the tests and test schedules are available at the [TES website](#) and from the TES office.
7. **Other credit by examination.** With the approval of the appropriate academic dean and department chair or program director, a student may take an examination in any undergraduate course offered by the University for which they have reason to feel qualified. A candidate may apply to take a Department Administered Exam (DAE) only after registering as a student at the University. Exams are given at the discretion of the administering department. A student who earns a satisfactory score will receive credit for the course. Department Administered Exam (DAE) forms for course exams are available at the TES office. A student who intends to apply for an exam over a first-year course should obtain a course outline from the department that offers the course; only students who have the equivalent in knowledge or training of that presented in the outline should apply for the exam.

## Adding and Dropping Classes

Procedures for adding and dropping classes are given in the [Course Schedule](#). Each student is responsible for properly initiating and completing adds and drops. Information about tuition adjustments resulting from adds and drops is given in [Adjustments for Added and Dropped Classes](#) (p. 44).

**Course Load Reduction.** Approval of requests for course load reductions are always the prerogative of the academic dean when medical reasons are given. [Applications to request consideration of a course load reduction should be submitted to Services for Students with Disabilities.](#) Services for Students with Disabilities will request a recommendation from the UHS executive director and chief medical officer. Once the executive director and chief medical officer signs the application, UHS will submit it to the appropriate dean's office for a final decision.

## Adding a Class

The addition of a class is governed by the following requirements: (1) the student must obtain all required approvals; (2) the student must be eligible to take the class; (3) there must be space available in the class; and (4) the student must remain in conformity with the [Quantity of Work Rule](#) (p. 50).

Subject to these requirements, a registered student may add a class through the twelfth class day of a long-session semester or the fourth class day of a summer term. Through the fourth class day of the semester or the second class day of the summer term, the approval of

the chair of the department offering the class may be required; after these dates, the approval of the chair is required for undergraduates; for graduate students, the approval of the instructor, the graduate advisor, and the graduate dean is required. In some colleges and schools, the approval of the student's advisor and college dean is also required. Students must consult the regulations of their college or school before adding a class.

Although a college or school may permit the addition of classes through the twelfth class day of a long-session semester or the fourth class day of a summer term, students are expected to be settled in their classes by the fourth class day of the long-session semester or the second class day of the summer term. After the twelfth class day of a long-session semester or the fourth class day of a summer term, with the approval of the student's dean and the chair of the department offering the class, a student may add a current or past semester class (either with or without a grade) only<sup>1</sup>:

1. If there was a rare or extenuating circumstance such that the student was unable to attempt to register for the class during the regular registration or add/drop access periods; or
2. When evidence exists that the student made an unsuccessful attempt to register for the class using normal registration procedures and that space was available in the class at that time.

The addition of a class for a semester prior to the current long semester must be signed by the dean or the appropriate associate dean of the college/school. For graduate students, this is the graduate dean or the associate dean for student services.

<sup>1</sup> This section does not apply to college/school programmatic processes as typically described in the *Undergraduate Catalog*.

## Dropping a Class: Rules for Undergraduate Students

In general, an undergraduate may drop a class through midsemester in a long-session semester and through the last class day in a summer term. However, the student must meet the conditions described below and must abide by the [Quantity of Work Rule](#) (p. 50). The dates of the deadlines discussed below are given in the [Academic Calendar](#) (p. 7). Students considering dropping a course are encouraged to speak with the course's instructor to determine if options exist for completing the course.

In addition to other required approvals, international students must have the written consent of [Texas Global](#) (p. 73) to drop a class.

On the recommendation of the instructor and with the approval of the student's academic dean, a student may be required to drop a class at any time because of neglect or lack of preparation. Delete drops (which remove all indications of the course registration from a student's academic record) may be requested only in the cases of University error or in response to rare and extenuating circumstances. The form requesting the delete drop must be signed by the dean or the appropriate associate dean of the college or school in which the student is enrolled.

## Limitations

In accordance with section 51.907 of the Texas Education Code, undergraduate students may drop no more than six classes for academic reasons. This rule applies to all students who entered a public Texas institution of higher education as first-time undergraduates in the fall semester 2007 or later.

A dropped class is counted toward the six-drop limit if the student dropped it from the thirteenth class day through the deadline to drop

a class for academic reasons in a long-session semester or from the fifth through the last class day in a summer term, and if the student did not drop the class for a substantiated, nonacademic reason as defined below.

Any such dropped class, for which the symbol Q is assigned, will not be considered final until any investigations of scholastic dishonesty for the class in question are resolved.

## Nonacademic Reasons for Dropping a Class

A dropped class will not be counted toward the six-drop limit if it occurs for a nonacademic reason such as those listed below. The student's dean will decide, at the time the student drops a class, whether the reason for the drop is academic or nonacademic.

1. A severe illness or other debilitating condition that affects the student's ability to satisfactorily complete the course.
2. The student's responsibility for the care of a sick, injured, or needy person if the provision of that care affects the student's ability to satisfactorily complete the course.
3. The death of a person who is considered to be a member of the student's family or who is otherwise considered to have a sufficiently close relationship to the student that the person's death is considered to be a showing of good cause.
4. The required duty service as a member of the Texas National Guard or the armed forces of the United States of either the student or a person who is considered to be a member of the student's family or who is otherwise considered to have a sufficiently close relationship to the student that the person's required military service is considered to be a showing of good cause.
5. A change of the student's work schedule that is beyond the control of the student and that affects the student's ability to complete the course.

## Procedures

**Through the twelfth class day.** From the first through the twelfth class day in a long-session semester, and from the first through the fourth class day in a summer term, a student may drop a class through the registration system. If the dropped class must be taken in conjunction with another class, the student must drop the second class as well. Each student should meet with their advisor before dropping a class.

A class dropped during this period is deleted from the student's academic record. It does not count toward the six-drop limit described above.

**From the thirteenth class day through the deadline to drop a class for academic reasons.** From the thirteenth class day through the deadline to drop a class for academic reasons in a long-session semester, and from the fifth through the last class day in a summer term, a student may drop a class only with the approval of their dean. In some colleges and schools, the approval of the student's advisor is also required. If the student is allowed to drop, the class remains on the student's academic record with the symbol Q, which identifies a drop without academic penalty. In addition, the student's dean determines whether the student is dropping the class for an academic or a nonacademic reason. If the dean determines that the reason is academic, the drop is counted toward the six-drop limit described above.

**After the deadline to drop a class for academic reasons.** After the deadline to drop a class for academic reasons has passed, there are only two possible ways for a student to drop a class. One way is in the case of urgent, substantiated, nonacademic reasons, which must be approved

by their dean. Approved nonacademic drops that occur during this period are not counted toward the six-drop limit described above. The other way is for the student to seek approval to use the One-Time-Exception. Approved One-Time-Exception (OTE) drops that occur during this period are counted toward the six-drop limit described above. To seek either type of drop within this period a student must submit the completed OTE form to the student's dean's office by the last class day.

## One-Time Exception

Undergraduate students who may not have urgent, substantiated, nonacademic reasons will be allowed to drop a single class or withdraw from the University after the deadline to drop or withdraw for academic reasons under the provisions of the One-Time Exception (OTE). The OTE may be invoked only once during the student's entire undergraduate college career regardless of the college the student was enrolled in at the time the exception was allowed. The provisions of the OTE are as follows.

### General Provisions

1. The OTE does not apply to students in the Graduate School, the College of Pharmacy, the LBJ School of Public Affairs, or the School of Law.
2. A student must submit the completed OTE form to the student's dean's office by the last class day.
3. Any drop or withdrawal allowed under the OTE will be subject to the same academic and financial aid rules governing other drops or withdrawals taken during the semester.

### Provisions for Drops

1. A student may not drop a class in which a final grade has been assigned. This will be verified by the student's dean's office.
2. A student may not drop a class if there are any pending investigations of scholastic dishonesty for the class in question. Any drop assigned will not be considered final until any investigations of scholastic dishonesty for the class in question are resolved.
3. Drops allowed under the provisions of the OTE will be considered academic drops and will count toward the six-drop limit. Students who have reached the six-drop limit are not eligible to use the OTE to drop a course.

### Provisions for Withdrawals

1. Students who are requesting to use the OTE for a withdrawal will be allowed to withdraw regardless of current grades in classes.
2. No instructors' signatures will be required on the form.
3. Pending scholastic dishonesty will be verified by the student's dean's office with the Dean of Students Office. Withdrawal will not be approved if there is a pending scholastic dishonesty case.

## Dropping a Class: Rules for Graduate Students

With the required approvals, a graduate student may drop a class through the last class day of the semester or summer term; after the twelfth class day of the semester or the fourth class day of the summer term, the graduate dean's approval is also required. If the student drops the class by the twelfth class day of the semester or the fourth class day of the summer term, the class is deleted from the student's academic record. After this time, delete drops (which remove all indications of the course registration from a student's academic record) may be requested only in the cases of University error or in response to rare and

extenuating circumstances. The form requesting the delete drop must be approved by the graduate dean.

If the student drops the class from the thirteenth through the twentieth class day of the long-session semester or from the fifth through the tenth class day of the summer term, the symbol *Q* appears on the academic record to indicate a drop without academic penalty. After these dates, if the student is registered on the letter-grade basis, the class instructor assigns the symbol *Q* or a grade of *F*; if the student is registered on the credit/no credit basis, the symbol *NC* is recorded.

A student who is in warning status for failing to maintain a 3.00 grade point average may not drop a class without the recommendation of the graduate advisor and the approval of the graduate dean.

International students, in addition to obtaining the required approvals, must be advised by the International Office before dropping a class if their remaining course load will be fewer than nine hours.

Students appointed as graduate student academic employees may not reduce their course load to fewer than nine hours during a long-session semester or fewer than three hours in a summer session (in any combination of summer session terms).

Any Q-drop assigned will not be considered final until any investigations of scholastic dishonesty for the class in question are resolved.

## Changing Registration to or from the Pass/Fail Basis or the Credit/No Credit Basis

Some courses must be taken for a letter grade; others must be taken on the pass/fail or credit/no credit basis. These requirements are given in catalogs and the [Course Schedule](#). If registration in a course is not restricted to a specific grading basis, the student may choose to register either for a letter grade or for credit.

An undergraduate student may change registration in a class from the pass/fail basis to the letter-grade basis or from the letter-grade basis to the pass/fail basis until the deadline given in the [Academic Calendar](#) (p. 7). The basis of registration for a course may be changed only once.

A graduate student may change registration in a class from the credit/no credit basis to the letter-grade basis or from the letter-grade basis to the credit/no credit basis until the deadline given in the [Academic Calendar](#) (p. 7).

In designated classes only, a law student may change registration in a class from the pass/fail basis to the letter-grade basis or from the letter-grade basis to the pass/fail basis until the deadline given in the [Academic Calendar](#) (p. 7).

## Withdrawal

A student who wishes to withdraw from the University after completing registration for a semester or summer session must secure the dean's approval. Following withdrawal, students are required to meet with the appropriate school/college academic advisor or other designated individual before the first class day of the semester for which they plan to re-enroll. A student who is a minor must present a written statement from a parent, guardian, or sponsor indicating that the responsible person knows of the student's intent to withdraw. In addition, international students must have permission from the International Office to withdraw.

The dean's signed approval to withdraw must be submitted to the registrar, where the student may request a refund of tuition, if eligible. Note that tuition refunds are strictly limited according to University policy as described at the following page: [Tuition Adjustments](#) (p. 43). No refund will be made to anyone other than the payer, except on the payer's written order.

After the last day for withdrawing (approximately mid-semester), an undergraduate student may petition for withdrawal only for urgent, substantiated, nonacademic reasons. Withdrawal by an undergraduate student on scholastic probation may affect the student's scholastic standing. Information about scholastic probation and dismissal is given in [Scholastic Probation and Dismissal](#) (p. 60).

A graduate student in good standing may withdraw with the approval of the graduate dean through the last class day of the semester. A graduate student who is in warning status may not withdraw without the recommendation of the graduate advisor and the approval of the graduate dean.

**Withdrawal for military service.** A student who withdraws as a result of being called to required military service may choose (1) to receive a refund of tuition for the semester; (2) if eligible, to be assigned an incomplete (symbol *X*) in each course as described in [Symbol X: Temporary Delay in Reporting the Final Class Grade](#) (p. 52); or (3) at the instructor's discretion, to receive a final grade in courses where the student has completed a substantial amount of coursework and has demonstrated sufficient mastery of the course material. Policies affecting students who are absent for military service but do not withdraw are given below.

**Medical withdrawal.** After the last day for withdrawing, a student who has an urgent, substantiated, and significant medical or mental health condition which impacts the student's academic functioning may be withdrawn from the University as of the date, and under the conditions, specified at the time of the withdrawal. Note that tuition refunds are strictly limited according to University policy as described at the following page: [Tuition Adjustments](#) (p. 43).

A student must request a medical withdrawal from UHS/CMHC by the last class day. Forms must be returned to UHS/CMHC before the first day of final exams. A student who requests medical withdrawal must submit copies of medical records from each medical and mental health care provider treating the condition. The medical records must include the date of onset of the illness or injury, dates of care, and diagnosis and prognosis. If the withdrawal is approved, the registrar and other appropriate officials will be notified. Specific information about the medical withdrawal process is available at the University Health Services [website](#).

- **Course Load Reduction.** Approval of requests for course load reductions are always the prerogative of the academic dean when medical reasons are given. [Applications to request consideration of a course load reduction should be submitted to Services for Students with Disabilities](#). Services for Students with Disabilities will request a recommendation from the UHS executive director and chief medical officer. Once the executive director and chief medical officer signs the application, UHS will submit it to the appropriate dean's office for a final decision.

**Retroactive withdrawal.** A student who wishes to leave the University for nonacademic reasons is expected to withdraw by the last class day of the current semester as described above. Requests to withdraw after the last class day are considered only if there were compelling documented circumstances that reasonably prevented the student from withdrawing by that day. Note that tuition refunds are strictly limited according to

University policy as described at the following page: [Tuition Adjustments](#) (p. 43).

Students considered under this standard may include, but are not limited to, students who were hospitalized or incarcerated, called away at the end of the semester because of a family crisis, asked to perform military service, or experienced a mental or physical health problem documented by an appropriate healthcare professional, that seriously inhibited their mental or physical functioning.

In these cases, students may discuss the situation with the dean or an academic advisor in the dean's office. If there is sufficient and compelling documentation, and if the request for retroactive withdrawal is submitted to the dean's office before the end of the next long-session semester, the dean or the dean's staff will review the request and consider approval of a retroactive withdrawal. Appropriate documentation could include written recommendations from University Health Services and the Counseling and Mental Health Center.

A college or school may approve an appeal for retroactive withdrawal for a semester prior to the previous long semester, but only for the most compelling nonacademic reasons that reasonably prevented the student from requesting a withdrawal in a timely manner, consistent with the policies described above. Support for the appeal from a college or school must be indicated through a signature of the dean or the appropriate associate dean of the college/school; such appeals are subject to review by the Provost for final approval.

## Attendance

Regular attendance at all class meetings is expected. Instructors are responsible for implementing an attendance policy and must notify students of any special attendance requirements.

Special regulations of colleges and schools, required by the unique nature of their programs of study, may be enacted through the normal approval process. These special regulations may not conflict with University regulations on class attendance and absence.

**Religious holy days.** A student who misses classes or other required activities, including examinations, for the observance of a religious holy day should inform the instructor as far in advance of the absence as possible so that arrangements can be made to complete an assignment within a reasonable period after the absence. A reasonable accommodation does not include substantial modification to academic standards, or adjustments of requirements essential to any program of instruction. Students and instructors who have questions or concerns about academic accommodations for religious observance or religious beliefs may contact the [Office for Inclusion and Equity](#). The University does not maintain a list of religious holy days.

**Absence for military service.** In accordance with section 51.9111 of the Texas Education Code, a student is excused from attending classes or engaging in other required activities, including exams, if they are called to required military service of a reasonably brief duration. The maximum time for which the student may be excused has been defined by the Texas Higher Education Coordinating Board (THECB) as "no more than 25 percent of the total number of class meetings or the contact hour equivalent (not including the final examination period) for the specific course or courses in which the student is currently enrolled at the beginning of the period" of required military service. The student will be allowed a reasonable time after the absence to complete assignments and take exams. Policies affecting students who withdraw from the University for military service are given in the [Withdrawal](#) (p. 58) section.

## Class Syllabi

Each instructor must provide students with a syllabus by the first day that the class meets. To the extent practicable, the syllabus must include the following information by the first day:

- The course number and title
- The instructor's name, office location, and office hours
- The names, office locations, and office hours of any teaching assistants
- An overview of the class, including prerequisites, the subject matter of each lecture or discussion, and the academic/learning goals for the course and how they will be assessed
- Grading policy, including the means of evaluation and assignment of class grades, including whether plus and minus grades will be used for the final class grade and whether attendance will be used in determining the final class grade
- A brief descriptive overview of all major course requirements and assignments, along with the dates of exams and assignments that count for 20 percent or more of the class grade
- A list of required and recommended materials, such as textbooks, image collections, audio and audiovisual materials, supplies, articles, chapters, and excerpts as appropriate, identified by author, title, and publisher
- Final exam date and time (when available)
- The class website, if any
- A notice that students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement (DDCE), Services for Students with Disabilities (SSD)

Instructors of undergraduate courses are required to submit a course syllabus and curriculum vitae to their departmental office or dean's office (in non-departmentalized colleges/schools) by the first day of classes each semester. The administrative units must upload instructor CVs and syllabi of undergraduate courses to the University's [public website](#) no later than seven days after the first day of classes. Faculty members who utilize Canvas should separately upload syllabi to the learning management system. Listing of office location, office hours, and teaching assistant information is not required for the publicly available version of the syllabus. Making undergraduate course information available to the public is mandated by HB 2504, passed by the 81<sup>st</sup> Texas Legislature (2009).

## Examinations

The final examinations for each semester and summer term are scheduled by the registrar. Classes that meet at the same time during a semester also have a common examination time. An index of these examination times is included in the [Course Schedule](#). Near the end of each semester and term, the complete examination schedule is distributed to academic offices; the examination schedule for a specific class is available through the Texas One Stop's [website](#). Students may access their individual examination schedules through the site.

Final examinations should begin promptly at the scheduled hour. They should not continue beyond the three hours allocated in the official schedule, but may be shorter at the instructor's discretion.

No final examinations may be given before the examination period begins, and no change in time from that published in the official schedule is permitted without approval. An instructor with a compelling reason to change the time of an examination must obtain the approval of the department chair and the dean of the college or school in which

the course is taught before announcing an alternative examination procedure to the students. No substantial examinations may be given during the last class week or during the reading days and the no-class days preceding the final examination period. An examination is considered to be substantial if it counts for more than 30 percent of the final course grade. A change in the room assignment for a final examination may be made only with the approval of the registrar.

The no-class days preceding final examinations are not to be used as dates on which assignments are to be turned in, examinations are to be given, quizzes are to be scheduled, or for any other class-related activity, other than office hours or review sessions. In addition, the final examination period is reserved for scheduled final examinations. No other class-related activity, with the exception of office hours, may be scheduled during the final examination period.

With the approval of the department chair, an instructor may choose not to give a final examination. However, if an examination is given, all students must take it unless there is a uniform exemption policy announced to the class.

For good cause, an instructor may give a student permission to take an examination with a different class section than the one in which the student is registered.

For good cause, students may petition their academic dean for permission to change the time or place of an examination from that specified in the official schedule. If permission is given by the dean and the instructor, no penalty (such as a reduction in grade) may be assessed.

In a course extending over two semesters, when the subject matter is continuous, the second-semester final examination may include the subject matter of the first semester. A student should address complaints related to the final examination procedures in a course to the chair of the department offering the course. The student may appeal the decision of the department chair to the dean of the college or school in which the course is offered, or to the Office of the Student Ombuds.

The following instructions govern the conduct of final examinations as well as other examinations given during the semester:

- Students must be informed that all written work handed in by them is considered to be their own work, prepared without unauthorized assistance.
- Students should be asked to cooperate in maintaining the integrity of examinations and encouraged to inform the instructor, without specifying the offenders, when cheating goes on in class.
- Instructors are responsible for advising students of the rules governing examinations and for supervising examinations in their respective classes. They, or their representatives, must remain in the examination room and take necessary actions to ensure an orderly examination and minimize the temptations and opportunities for cheating.
- Students are expected to (a) remain in the examination room until the test is completed; (b) refrain from talking; and (c) leave all notes and books where they are not accessible during the examination unless otherwise directed by the instructor.
- An instructor who suspects academic dishonesty must report the case to the Office of the Dean of Students.

## Searches

General searches of a student's personal papers and belongings may be conducted at the discretion of an instructor only when there is reasonable suspicion that the student has engaged in misconduct in

violation of the Appendix C, chapter 11, [Student Discipline and Conduct](#) (p. 117). In addition, the instructor must believe that the search is necessary to maintain the academic integrity of an examination or to maintain an environment in which learning can occur.

## Availability of Coursework to Students

A student has the right to have all written materials that are submitted to meet the requirements of a course returned or made available for review. To be "made available" does not ensure the right to a photocopy, but the materials may be examined in the office of the faculty member or the academic department. Written materials that are not returned to the student must be retained by the faculty member or the department for at least one year following the completion of the course.

## Grade Reports

**Semester reports from the registrar.** Grade reports are available to all students, except students in the School of Law and Dell Medical School, at the end of each semester and summer session at the Texas One Stop's [website](#).

**Intr semester reports from the deans.** About the middle of each semester (but not in the summer session), faculty members report undergraduate students doing work below the passing grade of *D-* to the deans. The offices of the deans forward the reports to each student.

## Scholastic Probation and Dismissal

### Undergraduate Students

An undergraduate must maintain a minimum cumulative University grade point average (GPA) to remain academically eligible to register for the subsequent semester or summer session. The cumulative University grade point average is calculated on the basis of all work undertaken at the University, including credit by examination, correspondence, and extension, for which a letter grade was given. Courses for which the symbols *Q*, *S*, *U*, *X*, *W*, *CR*, and *NC* were given are not included. (Note: Since September 15, 2006, the University has awarded only the symbol *CR*, rather than a letter grade, for credit earned by exam. As a result, credit earned by exam and recorded since that date is not included in the student's cumulative University grade point average. Through September 15, 2006, students chose either a letter grade or the symbol *CR* for credit earned by exam; credit by exam that was recorded with a letter grade is included in the student's cumulative University grade point average.) Grades earned at any institution other than the University are not included in the University grade point average, but semester hours of transfer credit accepted by the University are added to hours taken at the University to determine the total college hours undertaken.

As shown in the following table, the minimum grade point average required varies with the total number of college credit hours the student has undertaken.

## Table of Scholastic Standards

Total College Hours Undertaken	UT Austin GPA for Scholastic Probation	UT Austin GPA for Scholastic Dismissal
Below 15	less than 2.00	less than 1.50
15-44	less than 2.00	less than 1.70
45-59	less than 2.00	less than 1.85
60 or more	less than 2.00	less than 2.00

## Probation and Dismissal

The following rules govern scholastic probation and dismissal.

- Change of scholastic status.** Scholastic status is determined when grades are reported at the end of each fall and spring semester and at the end of the summer session. Although a student's University grade point average may change between these grade-reporting periods (because a final grade has been recorded in place of an X, for example), the student's scholastic status is not changed until the next official grade-reporting period during which the student is enrolled at the University.
- Effect of grades in courses repeated.** All grades earned in University courses, whether repeated or not, count in a student's grade point average. However, in counting grade points for any semester, a student who earned a grade of at least C- in a course taken in a previous semester may not use grade points earned in that same course in the current semester to meet the minimum requirements for continuance given below without written permission from the dean.
- Scholastic probation.** (a) A student whose cumulative University grade point average falls below 2.00 at the end of a grade-reporting period is placed on scholastic probation. Probationary status is reflected on the student's permanent academic record. (b) Any student returning to the University after a period of scholastic dismissal returns on scholastic probation. (c) Under exceptional circumstances, the director of admissions may admit a student to the University on scholastic probation.
- Quantity of work while on scholastic probation.** A student on scholastic probation must maintain a course load of at least 12 semester hours in a long-session semester, unless the student's dean approves a reduced course load in writing before the student registers. Permission to take fewer than 12 hours is based on extenuating circumstances and is not routinely granted. In the summer session, no minimum course load is required of a student on scholastic probation.
- Removal from scholastic probation.** A student on scholastic probation who achieves a cumulative University grade point average of at least 2.00 at the end of a grade-reporting period during which they are registered at the University is removed from scholastic probation. Removal from probation is reflected on the student's permanent academic record.
- Scholastic dismissal.** Under the conditions noted in items a, b, and c below, a student is subject to scholastic dismissal at the end of a long-session semester. A student is not placed on scholastic dismissal at the end of a summer session unless the dismissal is the result of a previous condition prescribed by their academic dean. Scholastic dismissal is reflected on the student's permanent academic record.
  - Any beginning student, freshman or transfer, who has not earned previous credit in residence at the University and who fails 12 or more semester hours of coursework in a long-session semester is subject to scholastic dismissal without a prior probationary period.
  - To be subject to scholastic dismissal, a student, except the beginning students described above, must first be placed on scholastic probation. A student on scholastic probation is subject to scholastic dismissal under either of the following conditions:
    - At the end of a long-session semester, a student on scholastic probation who fails to attain the cumulative University grade point average shown in the Table of Scholastic Standards above will be dismissed from the University.
    - A student on scholastic probation who withdraws from the University after the first four weeks of classes in a long-session semester will be placed on scholastic dismissal, unless the withdrawal is under exceptional conditions approved by the student's dean.
  - When a student who has been dismissed from the University returns, the student reenters on scholastic probation and may be subject to dismissal under the policies stated in (b)(i) and (b)(ii) above.
- Student responsibility.** A student who is dismissed from the University after completing registration for the next semester will have their registration canceled and may not attend classes. The student is responsible for knowing their scholastic status and may not appeal the cancellation of registration based on lack of such knowledge.
- Length of scholastic dismissal.**
  - First dismissal—One long-session semester and any intervening summer session.
  - Second dismissal—Three calendar years; readmission must be approved by the student's dean.
  - Third dismissal—A student dismissed for the third time will not be readmitted.
- Effect of scholastic dismissal on correspondence courses or registration in another institution.** A student who is dismissed from the University for scholastic reasons is not prohibited from taking courses by correspondence or from enrolling in another institution. The period of dismissal will not be decreased as a result of coursework completed while on dismissal.
- Exceptions permitting continuance in the University.** Normally, a student subject to dismissal will be dismissed; however, each college and school within the University has an appeals procedure administered by the Office of the Dean. A student who wishes to appeal should contact the office of their academic dean for procedures and deadlines. In unusual circumstances, a student may be allowed to continue subject to conditions prescribed by the dean. Approval to continue will not be given, regardless of the circumstances, unless the dean believes that the student has a reasonable chance of attaining a degree.
- Special college regulations.** Each college and school of the University determines its own policies regarding the minimum academic standards required of its students. Any college or school may require a higher minimum grade point average than is required to avoid scholastic probation under University-wide rules. In addition, a college or school may restrict enrollment because of the limitation of instructional resources. A student may be ineligible to continue in a particular college or school while remaining eligible to transfer to another; however, no student on scholastic dismissal from the University may be enrolled in any academic program of the University.

## Graduate Students

To continue in the Graduate School beyond the first semester or summer session, the student must make satisfactory progress in fulfilling any admission conditions that were imposed, meet any requirements made

in writing by the Graduate Studies Committee, maintain a graduate grade point average of at least 3.00, and receive the approval of the student's Graduate Studies Committee.

Graduate Studies Committees are responsible for evaluating the students in their programs to ensure that they are making satisfactory progress toward a degree. If the Graduate Studies Committee finds that a student is not making satisfactory progress, it may recommend to the graduate dean that the student's program be terminated.

A graduate student whose cumulative graduate grade point average falls below 3.00 at the end of any semester or summer session will be warned by the Office of Graduate Studies that their continuance in the Graduate School is in jeopardy. The student must attain a cumulative graduate grade point average of at least 3.00 during the next semester or summer session they are enrolled or be subject to dismissal. During this period, the student may not drop a course or withdraw from the University without the approval of the graduate advisor and the graduate dean.

A graduate student who has been dismissed may be readmitted for further graduate study only by petition of the Graduate Studies Committee in the student's major area or by the Graduate Studies Committee of another program that will accept the student. The petition must be approved by the graduate dean and will only be approved for rare and extenuating non-academic reasons.

Scholastic warning status and academic dismissal are reflected on the student's permanent record.

## Law Students

A law student must receive a final grade of at least D in a course to receive credit for that course. A student must have a cumulative grade point average of at least 1.90 on all law courses taken to graduate from the School of Law.

Grades of F are included in the grade point average, but courses in which the student earned an F are not counted toward the number of hours required for a degree. A student who fails a required course must repeat

## Honors

Except as noted, the opportunities displayed in the following sections are open to all qualified undergraduates. Honors available through the colleges and schools, and the interdisciplinary programs and activities offered by the School of Undergraduate Studies, are described in the [Undergraduate Catalog](#).

## British Marshall, Rhodes, and Truman Scholarships

British Marshall scholarships allow young Americans of high ability to study for a degree in the system of higher education of their choice in the United Kingdom. Each scholarship offers two years or more of postgraduate study. Up to 40 new awards are offered every year in the United States. Students should apply in their senior year. Applications are due in the Liberal Arts Honors Program office in early September.

Rhodes scholarships are for outstanding United States citizens who are between eighteen and twenty-four on October 1 of the year of application. Students should apply in their senior year. Each scholarship offers two years or more of postgraduate study at the University of Oxford. Thirty-two scholarships are assigned annually to the United States. Applications are due to the Liberal Arts Honors Program office in CLA 2.104 in early September.

The Harry S. Truman Scholarship Foundation awards 60 to 65 \$30,000 merit-based scholarships annually to college students who wish to attend graduate school in preparation for careers in government or elsewhere in public service. Applicants must be in the top quarter of their class, with a grade point average of at least 3.80, and must be United States citizens or nationals. Truman Scholars receive leadership training, graduate school counseling, preferential admission and merit-based aid at some premier graduate institutions, and internship opportunities with federal agencies. Students who will be seniors the following academic year should apply to the Liberal Arts Honors Program office in CLA 2.104 in September.

## College Scholars

On Honors Day each spring, the University designates outstanding students as College Scholars and Distinguished College Scholars, on the basis of registration and grade point average requirements for courses taken in residence at the University, as specified below.

it until the student has passed. A student who fails an elective course may, at their option, repeat it only once. When a student repeats a course, the original and all subsequent grades are included in the student's grade point average.

A student who receives a grade of F in a law course is placed on scholastic probation. A student who receives two grades of F for law courses in any one semester is dismissed for failure. A student who receives a total of three grades of F for law courses during their law school career is dismissed for failure.

A student will be placed on scholastic probation if their cumulative GPA falls below a 1.90. A student who has received final grades for more than 20 semester hours will be dismissed from the School of Law for failure if their cumulative GPA falls below a 1.80.

Scholastic probation is lifted after one long semester in which the student has completed one or more law courses, provided that the student does not receive another F for any law course during that semester and the cumulative GPA is at or above 1.90. If the student is not able to raise the cumulative GPA at or above a 1.90 after one long semester or if they meet the maximum of three grades of F as stated above, the student will be dismissed from the School of Law for failure.

A student who has been dismissed from the School of Law for failure after receiving grades for 33 or more semester hours will not be readmitted to the School of Law, with this exception: if the student has never been on scholastic probation in the School of Law, the student maybe readmitted on scholastic probation for one long-session semester. A student who has been dismissed for failure after receiving grades for fewer than 33 semester hours may be admitted as a new student after the student has remained out of the School of Law for at least 12 months. The Law School Admissions Committee may attach significance to the prior failure. No student who has been dismissed for failure from the School of Law will be permitted, prior to readmission, to visit classes.

To be designated a College Scholar, a student must meet all of the following requirements:

1. The student must be registered as an undergraduate in the current semester. Students who hold a bachelors degree or are registered in-absentia are not eligible.
2. The student must have completed at least 30 semester hours of coursework in residence at the University, and at least 60 semester hours of college coursework, including transferred work and credit by examination.
3. The student must rank in the top 20 percent of their class in each college or school in which they are enrolled, based on in-residence cumulative grade point average.
4. The student must have an in-residence University grade point average of at least 3.50.

To be designated a Distinguished College Scholar, a student must meet one of the following requirements:

1. The student in each class of each college or school meeting the above requirements for College Scholars with the highest in-residence University grade point average will be designated a Distinguished College Scholar.
2. All other students in each college or school who meet the first, second, and fourth College Scholar requirements stated above and are also in the top 4 percent of their class in each college or school in which they are enrolled will be designated as Distinguished College Scholars.

A student is ineligible for honors recognition as a College Scholar or a Distinguished College Scholar if, in the last two years prior to the creation of the Honors Day report, the student received final sanctions under Subchapter 11-701 (a)(2)-(a)(14) of the Institutional Rules for:

- (1) academic misconduct and/or
- (2) non-academic misconduct involving probation or higher.

Designation as a College Scholar or a Distinguished College Scholar will be based on eligibility calculations by the Office of the Registrar as of 5 p.m. on the 20th class day of the semester in which the Honors Day Ceremony is held. Students who are eligible for recognition receive invitations to the Honors Day convocation.

## Graduation with University Honors

To be eligible to graduate with University honors, an undergraduate must have completed at least 60 semester hours at The University of Texas at Austin. Graduation with University honors is based on the average of all grades earned in courses taken in residence at the University, whether the courses were passed, failed, or repeated. Courses taken pass/fail are counted in the 60-hour minimum, but only letter grades (including Fs in pass/fail courses) are used to determine the grade point average.

The faculty of each college or school determines the percentage of the graduating class of that division to receive honors, high honors, and highest honors and the minimum grade point average for each category, subject to the following requirements:

1. No more than 20 percent of the May graduating class of each college or school may receive honors, high honors, and highest honors. No more than 10 percent of the class may receive high honors and highest honors. No more than four percent may receive highest honors.
2. Honors graduates must have a grade point average of at least 3.30 in courses taken in residence at the University.

The faculty may adopt college- or school-wide standards or may designate grade point average and percentage requirements for each program within the college or school, but the percentage of the college or school class receiving honors, high honors, and highest honors may not exceed those above.

Percentage requirements are not applied to August and December graduating classes. The grade point averages established for May graduates are applied to the following August and December classes to determine honors, high honors, and highest honors.

College or School	Honors		High Honors		Highest Honors	
	Rank	Min. GPA	Rank	Min. GPA	Rank	Min. GPA
School of Architecture	top 20%	3.30	top 10%	3.30	top 4%	3.30
McCombs School of Business	top 20%	3.50	top 10%	3.65	top 4%	3.80
Moody College of Communication	top 20%	3.465	top 10%	3.665	top 4%	3.865
College of Education	top 20%	3.50	top 10%	3.65	top 4%	3.80
Cockrell School of Engineering	top 20%	3.50	top 10%	3.70	top 4%	3.85
College of Fine Arts	top 20%	3.30	top 10%	3.60	top 4%	3.85
Jackson School of Geosciences	top 20%	3.30	top 10%	3.667	top 4%	3.867
College of Liberal Arts	top 20%	3.30	top 10%	3.667	top 4%	3.867
College of Natural Sciences	top 20%	3.30	top 10%	3.667	top 4%	3.867
School of Nursing	top 20%	3.30	top 10%	3.30	top 4%	3.30
College of Pharmacy	top 20%	3.30	top 10%	3.30	top 4%	3.30
School of Social Work	top 20%	3.30	top 10%	3.30	top 4%	3.30

Each grade point average listed is the minimum required for graduation with honors, high honors, or highest honors. Because only a certain percentage of the class may receive honors, the average required for each category may be higher.

In the McCombs School of Business, the Moody College of Communication, the Cockrell School of Engineering, and the College of Fine Arts, a student must have completed at least 60 semester hours of coursework in residence at the University to graduate with University honors.

In the Cockrell School, a student may receive only one bachelor's degree with University honors.

In the College of Fine Arts, to graduate with University honors, a student must rank in the indicated percent of students graduating that semester from their academic unit (art and art history, music, or theatre and dance) and must have no outstanding delay of grade (symbol X). A student may receive only one bachelor's degree with University honors from the College of Fine Arts.

## Alpha Lambda Delta and Phi Eta Sigma

Alpha Lambda Delta and Phi Eta Sigma (ALDPES) are national honor societies that recognize scholastic achievement during a student's first year at The University of Texas at Austin. Both chapters were installed at UT in the 1930s. Their purpose is to encourage superior academic achievement among students beyond their first year at institutions of higher education, to promote intelligent living and a continued high standard of learning, and to assist students in recognizing and developing meaningful goals for their roles in society.

Membership is by invitation only to students who earn a grade point average of at least 3.50 during their first semester or first year at the University, while completing at least twelve semester hours of coursework at the University. Eligible students are notified by the School of Undergraduate Studies at the end of each fall and spring semester. More information can be found on the [Honors Societies website](#).

## Junior Fellows Program

The Junior Fellows Program provides recognition for outstanding students who have completed four semesters, or approximately 60 semester hours of coursework. Chosen annually from the best students across the campus, junior fellows are given the opportunity to participate in independent study and research with distinguished professors of their choice, and to have that research supported by small grants, if necessary. The program is administered by the College of Liberal Arts, but undergraduates in all colleges and schools are eligible to take part. Students who wish to be considered should apply in February. Application forms are available in the Liberal Arts Honors Program office in CLA 2.104.

## Phi Beta Kappa

Phi Beta Kappa, the oldest honorary society in America, was founded by students at the College of William and Mary in 1776. The Alpha of Texas chapter was organized at The University of Texas at Austin in 1904. Membership is by invitation only to upper-division students who achieve distinguished scholastic records in disciplines that Phi Beta Kappa designates as liberal arts and sciences.

Students eligible for early membership must have at least 60 hours of credit in residence at The University of Texas at Austin and a 4.0 GPA at the time of the election. Because the chapter seeks to elect no more than 2% of any class for early induction, additional criteria may be added in the future for early election if the number of students obtaining a 4.0 continues to rise.

Students eligible for regular membership as a degree candidate must have at least 60 in residence hours at The University of Texas at Austin, have applied for graduation, and have at least a 3.90 GPA at the time of the election. The exact GPA cutoff varies year to year because PBK seeks to elect no more than the top 8% of students graduating. For this reason, 3.9 is a guideline — not an entitlement to election. (In 2021, for example, the GPA cutoff for election was 3.94).

Students eligible for regular membership as a recent graduate must have at least 60 in residence hours at The University of Texas at Austin, have graduated from UT immediately prior to the most recent election eligibility period, and have at least a 3.90 GPA at the time of the election, but the exact GPA cutoff will be the same as students who are in the graduating class being inducted. For this reason, 3.9 is a guideline, not an entitlement to election.

All eligible students are notified by the School of Undergraduate Studies after spring chapter elections. More information can be found on the [Honors Societies website](#).

## Phi Kappa Phi

Founded in 1897 at the University of Maine, Phi Kappa Phi is the nation's oldest, largest, and most selective honor society for all academic disciplines. The University of Texas chapter was established in 1962. Phi Kappa Phi awards more than \$800,000 annually through graduate and undergraduate scholarships, member and chapter awards, and grants for local and national literacy initiatives.

Membership is by invitation only to the top 7.5 percent of second-semester juniors, the top 10 percent of seniors, and graduate students with a grade point average of 4.00. Students are eligible for membership if they have completed the minimum required hours and have the required grade point average. Eligible students are notified by the School of Undergraduate Studies in the spring. More information can be found on the [Honors Societies website](#).

## University Honors

Each fall and spring semester, undergraduates who complete a full course load and earn outstanding grades are recognized by inclusion on the University Honors list. Each time a student is included on the list, their official record also shows the award of University Honors for that semester. The list is compiled at the end of each fall and spring semester; it is based on the student's work in that semester only. To be included, a student must earn at least 45 grade points and a grade point average of at least 3.50 on courses completed in residence and must have no incomplete grades (symbol X).

Students are notified on the semester grade report of their inclusion on the list.

## Teacher Certification

The University conducts a large, field-based educator preparation program leading to certification for future teachers, administrators, and educational support personnel. This program is evaluated each year by the State of Texas and by the federal government. The results of these evaluations attest to the high quality of educator preparation at the University. For the academic year 2019-2020, 457 students were enrolled in the Professional Development Sequence of courses in the teacher certification programs. Teacher preparation requires extensively supervised field experiences, with most programs requiring approximately 800 hours in the field. Of the 293 University students who took an educator certification exam in 2019-2020, 93 percent passed. Based on certification exam pass rates for all applicant demographic groups, the Texas Education Agency (TEA) rated the University educator preparation program “accredited,” its highest rating.

The University recommends students for teacher certification to TEA. To be recommended for a certificate to teach in elementary, middle, or high school, an undergraduate student must earn a degree as well as complete an approved teacher certification program. Students complete the following requirements for approved programs in conjunction with degree requirements:

1. **Enrollment.** Students seeking certification to teach at the elementary school level (option a below) must register in the College of Education and major in applied learning and development, an interdisciplinary program. Students seeking middle grades (option b below), high school (option c), or all-level (option d) certification must earn a degree from the college or school that houses the academic program in their prospective teaching field. Students should be advised by both an advisor in their academic department and a teacher certification advisor to confirm that the courses for which they register are applicable to their certification program.

Students who are seeking teacher certification should select from the following options:

- a. Early childhood through grade 6: ESL generalist
  - b. Grades 4 through 8: Mathematics, science, English language arts and reading, or social studies
  - c. Grades 8 through 12: Mathematics, science, computer science, English language arts and reading, history, or social studies
  - d. All-level: Special education, art, music, theatre arts, physical education, or languages other than English
2. **Admission to the Professional Development Sequence.** All students seeking teacher certification must complete a sequence of professional development courses. Admission to the Professional Development Sequence is restricted, and students must apply for admission. Academic performance, completion of prerequisite courses, documented evidence of proficiency in reading and in oral and written communication, and the number of hours needed to complete the program may be factors in the admission decision.

For students seeking early childhood through grade six, all-level generic special education, or all-level kinesiology certification, admission to the Professional Development Sequence requires a minimum University grade point average and minimum course grades prescribed by each program. To progress within the sequence, the student must maintain the minimum grade point average for the program. In addition, when they enter the

Professional Development Sequence, students seeking early childhood through grade six and all-level generic special education certification may lack no more than one class outside the sequence. Additional information about these requirements is available in the Student Division Office, College of Education.

For students in other teacher certification programs, requirements for admission to and continuation in the Professional Development Sequence are set by the college in which the student majors.

3. **Certification exam.** An individual seeking certification is required to achieve a satisfactory level of performance on the appropriate Texas Examinations of Educator Standards (TExES) test to be approved for initial or additional certification. Students who do not apply for their teaching certificate within three years of completing apprentice teaching may be required to complete additional fieldwork hours and coursework before applying for the certificate.
4. **Legal questions.** In accordance with state law, the commissioner of education may suspend or revoke a teaching certificate or refuse to issue a teaching certificate for a person who has been convicted of a felony or misdemeanor for a crime that directly relates to the duties and responsibilities of the teaching profession. Information about legal issues is available from the teacher certification officer, George I. Sánchez Building, Certification Office, (512) 471-3223.

For students who hold a bachelor’s degree, separate programs are available that lead to teacher certification at all levels. The requirements of these postbaccalaureate programs may be different from those of the undergraduate certification programs.

For more information about teacher certification programs, students should see an academic advisor in the Student Division Office of the College of Education, in the George I. Sánchez Building.

## Transcripts

With proper identification, a student may purchase an official transcript for \$20 a copy in person; by mail, e-mail, or fax; or online. The transcript includes the academic record accumulated at The University of Texas at Austin and lists coursework by semester, including dates of attendance, degrees earned, university honors, transferred work, and scholastic status. Unofficial copies of transcripts from other institutions may be furnished by the registrar’s office for a fee of \$20. A transcript is a comprehensive record of an individual’s academic progress at the University. The contents of an official transcript are listed in 9–400 of the [Institutional Rules](#) (p. 114). No partial or incomplete record (such as a record with grades of *F* omitted) will be issued. A student who owes a debt to the University may be unable to obtain an official transcript until the debt is paid. Additional information about requesting a transcript is published on the [Texas One Stop website](#).

Texas law provides criminal penalties for forgery of a transcript or similar document.

The registrar’s office also provides official enrollment certifications to students and others for health insurance, loan deferment, and other reasons. A \$5 charge is assessed for on-demand emergency certifications.

## Diplomas

The diploma is a formal document issued by the University to recognize that a degree has been awarded by the institution.

University diplomas display the student's legal name or designated diploma name, graduation date, and degree earned (e.g. Bachelor of Arts, Bachelor of Science in Chemistry, or Doctor of Philosophy), along with the name and seal of the institution and the signatures of University and University of Texas System officials. If the student has graduated with University honors as described in [Graduation with University Honors](#) (p. 63), this accomplishment is indicated. The diploma does not display the student's major(s), minors or certificates.

Information regarding multiple degrees for undergraduate students can be found in the [Graduation section](#) of the Undergraduate catalog.

A graduating student has the option to have their diploma name printed with a chosen name instead of the name on their University record. This option must be submitted by the name change deadline as set by the Registrar during the final semester before graduation.

Any requests to reprint the diploma based upon a name change after the deadline will be assessed a \$50 fee.

Diplomas are mailed about six to eight weeks after the student's graduation. A student who owes a debt to the University may be unable to obtain a diploma until the debt is paid.

A graduate may purchase a replacement diploma through the Office of the Registrar for \$50. The signatures of University and University of Texas System officials may not be the same as those on the original diploma, since the signatures of former officials are not maintained on file, therefore your diploma may reflect a reissued date. A graduate who requests a replacement diploma based on a name change (either legal or chosen) must pay the replacement fee.

## Personal Record Information

**Name change.** The University maintains educational records under the student's full, legal name. Official documents such as transcripts will not be issued bearing any other name.

Currently enrolled and former students may change the name on their permanent academic record by presenting an original or certified copy of the appropriate documentation to the registrar. In addition, students may be asked to present a notarized copy of their request. To change the first, middle, last name, suffix, or sequence of names the student must present an original or certified copy of one of the following: government issued ID, such as driver's license, state ID card, valid passport, or military ID; original or certified copy of birth certificate, marriage certificate, or official documentation of common law marriage; court order (must show change to new name); or divorce decree (must show change to new name). The registrar may request additional documentation if necessary.

**Change of address, telephone number, or e-mail address.** The student must give the correct local and permanent postal addresses, telephone number(s), and e-mail address to the Office of the Registrar and to the office(s) of the student's dean(s) and must notify these offices immediately of any changes. Official correspondence is sent to the postal or e-mail address last given to the registrar; if the student has failed to correct this address, the student will not be relieved of responsibility on the grounds that the correspondence was not delivered.

## Summons to Administrative Offices

A summons to the office of any administrative officer must be observed. Failure to respond to a summons may result in suspension from the University. A summons to the dean may be sent by post or by e-mail, so it is important that the student keep both the dean and the Office of the Registrar informed of all current addresses.

## Official Communications with the University

Students are expected to attend to business matters with the University during regular working hours, Monday through Friday. A student who is unable to conduct business personally should contact the appropriate office by mail or telephone. For purposes of proper identification and clarity, written communications should include the student's name, public user name (UT EID), and local address (if applicable).

Electronic mail, like postal mail, is a mechanism for official University communication to students. Policies on the use of e-mail for official communication are given in [Appendix M](#) (p. 159).

## Student Services

### Vice President for Student Affairs

The Vice President for Student Affairs administers the Division of Student Affairs, which encompasses the Counseling and Mental Health Center, the Office of the Dean of Students, University Health Services, University Housing and Dining, the Department of Recreational Sports, New Student Services, Texas Parents, University Unions and the Center for Students in Recovery. The vice president serves as liaison between the president of the University and the directors of these units, and provides leadership in the development of programs that supplement the classroom experience and enrich the quality of campus life.

### Office of the Dean of Students

The [Office of the Dean of Students](#) is committed to helping all students at The University of Texas at Austin succeed as students and prepare for graduation by providing legal, emergency, veteran, and other support services along with leadership experience and personal growth opportunities through organizations and programming.

### Legal Services for Students

Legal Services for Students provides confidential advice and guidance to students with legal concerns. Legal Services for Students does not provide representation or advocacy on behalf of individual students with regard to their potential legal claims or disputes. If the situation requires legal representation, the LSS staff will provide referrals to other legal resources and information. The area also offers seminars, workshops, and presentations to student groups and classes to educate students about legal issues before conflicts arise.

### Sorority and Fraternity Life

Sorority and Fraternity Life strives to shape a values-based sorority and fraternity experience contributing to a positive sisterhood, brotherhood, and siblinghood. As a liaison to the Interfraternity, Latino Pan-Hellenic, Multicultural Greek, National Pan-Hellenic, Texas Asian Pan-Hellenic, and University Panhellenic Councils, as well as affiliated organizations, Sorority and Fraternity Life provides dynamic educational and leadership development opportunities to foster a safe, responsible, and culturally

conscious community. Additionally, staff within Sorority and Fraternity Life serve as a programmatic and development resources for risk management, safety, and hazing prevention education for all student organizations.

## Student Activities

Student Activities offers many services to student organizations, providing information, registration, space reservations, training through its workshops, one-on-one consultations, and event planning support. Student Activities manages HornsLink, through which students can find events and activities, connect with student organizations, explore opportunities based upon interests, build a leadership resume, and manage organization affairs.

## Student Emergency Services

Through individualized consultation, Student Emergency Services provides assistance, intervention, and referrals to support students navigating challenging or unexpected issues that impact their well-being and academic success. Student Emergency Services provides support and resources through the following programs: Student Emergency Fund, UT Outpost (food pantry and career closet), confidential advocates for interpersonal violence concerns, and respondent student services. Student Emergency Services also provides oversight for the Behavioral Concerns and COVID-19 Advice Line (BCCAL), in partnership with the Counseling and Mental Health Center, Employee Assistance Program, the UT Police Department, and the University Health Services. BCCAL is a resource to report behavioral concerns of an individual affiliated with the University (i.e. student, faculty, staff, or visitors) or address questions related to COVID-19.

## Student Conduct and Academic Integrity

Student Conduct and Academic Integrity provides oversight, intervention, and management for behavioral and academic conduct for students and student organizations with a goal of reinforcing UT's core values of Learning, Discovery, Freedom, Leadership, Individual Opportunity, and Responsibility. The conduct of our student body shall be governed and directed by the principles of the Student Honor Code together with the University Code of Conduct to promote safety, academic success, and the provision of skills necessary to contribute to society as an ethical citizen. Staff provide proactive educational programming for students, faculty and staff on community expectations related to behavior and academic integrity with an emphasis on prevention of policy violations. Student Conduct provides support, through peer advising and guidance on navigating the conduct process, for students that are involved in an alleged violation. Student Conduct offers assistance and consultation to faculty and staff seeking to address behavior that may rise to a University policy violation.

## Texas Leadership Education and Development

Texas Leadership Education and Development in the Office of the Dean of Students engages students in transformative leadership development opportunities. Texas Leadership Education and Development serves all students, regardless of a person's major, class standing, experience, or background. Through dynamic programs, resources and experiences, every student has the opportunity to realize their potential as a leader on campus, in the community, and over the course of their career.

## Veteran and Military Affiliated Services

Veteran and Military Affiliated Services serves the military, veterans, and their families at The University of Texas at Austin. The area's professional staff provides advising, benefits support, and tailored programs for current student veterans, active-duty military, veterans,

and the dependents of veterans. Current University student veterans have access to free tutoring services, academic support, one-on-one mentoring, career counseling, on-site mental health counseling, health resources, programs for women veterans, veteran specific scholarships, veteran benefits counseling, financial assistance, and a student organization that promotes a vibrant student veteran community on campus. The area's programs and services are carefully tailored by a veteran staff to serve fellow veterans and military affiliated students.

## The Election Supervisory Board

The Election Supervisory Board (ESB) is tasked with conducting and overseeing all campus-wide student elections. The entities that defer to the ESB for election processes are: Graduate Student Assembly, Texas Student Media, University Co-op, University Unions, and Student Government. It is the exclusive prerogative of the ESB to hear complaints, conduct hearings, and release resolutions and advisory opinions regarding election activities. These and all other powers granted to the ESB fall strictly within the purview of the Common Code, which is adopted by each aforementioned entity, revised annually, and approved by the Office of the Dean of Students. For more information, visit [UTexasVote.org](http://UTexasVote.org).

## Legislative Student Organizations

The Office of the Dean of Students advises and supports [Student Government](#), [Graduate Student Assembly](#), and [Senate of College Councils](#).

## Recreational Sports

Recreational Sports develops and conducts programs through which students, faculty members, and staff members may participate in recreational activities. [Intramural tournaments and events](#) are scheduled throughout the year for individual, dual, and team participation. The tournaments and events are organized to provide separate competitions among coeducational teams, teams for men, and teams for women. [Sport clubs](#) provide an opportunity to participate in a single sport on a continuing basis. About 40 clubs, ranging from aikido to lacrosse to sailing, are active each semester. [Outdoor Recreation](#) provides equipment rental, an indoor [Climbing Wall](#) and supervised trips in a variety of activities such as backpacking, camping, canoeing, kayaking, nature hiking, and rock climbing. Opportunities through [Fitness and Wellness](#) include group fitness classes, clinics and series, and personal training. The Instructional Program provides safety education, swimming and sport skills classes.

In addition to structured sports programs, the department promotes the concept of informal recreational use of its facilities through the Informal Recreation Program. A reservation service is available for most activity areas, and facilities are supervised to enhance the enjoyment of participants.

Programs, activities, and facilities are open to all currently registered students as well as faculty members, staff members, and the spouses and children of students, faculty members, and staff members who purchase membership in Recreational Sports. Facilities are available to children at designated times only.

Participants may check out sports equipment at the Recreational Sports Center, Gregory Gymnasium, Wright-Whitaker Sports Complex and other RecSports facilities. Gregory Gymnasium provides an additional service to participants by renting outdoor equipment at the [Outdoor Center](#).

Other services offered at Gregory Gym are an Amazon pickup location, offering the campus community a convenient location to pick up and return Amazon orders; Shake Smart, a purveyor of freshly-blended

protein shakes, cold brew coffee, and healthy on-the-go foods; and a campus location of University Federal Credit Union.

[Membership and Guest Services](#) manages recreation facility access systems and provides amenities to students, faculty, staff, and others affiliated with The University of Texas at Austin. Access is provided through membership, and amenities include locker and towel service and massage therapy.

## University Housing and Dining

All students enrolled in The University of Texas at Austin are eligible to live in University-owned housing. Students are not required to live on campus and may choose to live on or off campus. Freshmen are encouraged to consider living in University residence halls. The experience of many students indicates that adjustment to University life is often easier for those who live on campus. Research indicates that students who live in residence halls are more fully involved in academic and extracurricular activities, earn higher grade point averages, more frequently exceed predicted levels of learning and personal development, and more frequently complete their college education within four years, as compared to students who live off campus.

A brief description of university housing follows. More information about housing is available [online](#) and from The University of Texas at Austin, University Housing and Dining, P O Box 7666, Austin TX 78713-7666. Institutional rules regarding university-owned residences are listed in [Appendix C, Chapter 5. University-Owned Residences](#) (p. 95).

**Applying for housing in University residence halls.** Students may apply to live on campus after they have completed the admission application. Contracts are offered to students who are admitted to the University; incoming freshmen must be admitted and have paid or satisfied the enrollment deposit. More information about the housing application process is available [online](#). Housing is not guaranteed for students.

**University-owned residence hall for men.** The University residence hall for men is Creekside Residence Hall, which can accommodate approximately 200 students.

**University-owned residence halls for women.** The University residence halls for women are Kinsolving and Littlefield, which can accommodate approximately 900 students. Freshmen women who apply for housing with Littlefield as their first building choice are given priority consideration for assignment to Littlefield.

**University-owned residence halls for men and women.** Jester Center, Whitis Court, San Jacinto Hall, Almetris Duren Hall, Brackenridge Hall, Prather Hall, Moore-Hill, and Roberts Hall accommodate approximately 5,500 students. Andrews, Blanton, and Carothers honors residence halls accommodate about 500 students.

**University-owned apartments.** 2400 Nueces, located off-campus in the west campus area, is open to undergraduate students who have completed at least 30 semester hours of coursework. More information about 2400 Nueces is available [online](#). The University Apartments, located in off-campus areas that have shuttle bus service, are open to graduate and undergraduate students who have completed at least 30 semester hours of coursework, including those with families. Gateway Apartments and Colorado Apartments have approximately four hundred air-conditioned, unfurnished units; Brackenridge Apartments have approximately three hundred one-, two-, and three-bedroom, air-conditioned, unfurnished units. Rates for Colorado Apartments include gas and water. Rates for all other units include only water. Residents pay for electricity in all units. Apartment contracts may be signed up to sixty days before move-in. More information about University Apartments is

available [online](#) and from The University of Texas at Austin, University Apartments, 3501 Lake Austin Boulevard, Austin TX 78703-5533.

**Privately owned housing.** A wide range of privately owned housing is available for men, women, and families in the University community. Arrangements for living in these residence halls, rooming and boarding houses, cooperative houses, apartments, and private homes are made directly with the management of each residence. The University maintains a [website](#) that includes links to other housing and real estate listings.

The University accepts no responsibility for the terms of rental or the accommodations offered and will not be a party to the enforcement of contracts between students, parents, and landlords for privately owned housing.

## Scholarships and Financial Aid

The Office of Scholarships and Financial Aid provides financial assistance to students who might otherwise be unable to attend the University. Financial aid awarded through the office may include grants, scholarships, loans or work-study. Most financial aid is determined based on documented financial need, which is the difference between the cost of attending the University, the Expected Family Contribution and the financial resources available to the student.

To apply for financial assistance, students must complete a need analysis form each year. The office requires students to complete either the Free Application for Federal Student Aid (FAFSA) or the Texas Application for State Financial Aid (TASFA). The [FAFSA](#) should be completed by students who are U.S. citizens. The TASFA should be used by non-citizens who are classified as Texas residents; the [Apply](#) page of the Texas One Stop website has more information on the TASFA. The information submitted through these applications helps the Office of Scholarships and Financial Aid assess family resources and determine eligibility for specific aid programs.

Students who are admitted as transient/non-degree-seeking and attend the University are not eligible for financial aid through the Office of Scholarships and Financial Aid.

**Estimated Costs.** Pursuant to state law, The University of Texas System Board of Regents (the Board) is authorized to set tuition. Please visit [Tuition Rates](#) on the Texas One Stop website for up-to-date information regarding Fall 2021 rates.

*Estimated* costs for tuition, fees, room, board, books, transportation, and personal and miscellaneous items for a typical student (both undergraduate and graduate) living in University-owned housing for the 2021-2022 long sessions (fall and spring semesters) and summer session are available on the [Cost of Attendance](#) page of the Texas One Stop website. The tuition amounts included in these figures are based on an average course load of 12 or more semester hours for undergraduates and nine or more semester hours for graduate students.

**Application dates.** The University strongly recommends that all students complete their financial aid applications by the Texas Higher Education Coordinating Board's priority filing date. More information about the priority filing date and financial aid is published by [Texas One Stop](#).

A student may apply for financial aid before being officially admitted to the University, but the awarding of aid is contingent upon admission. Aid cannot be disbursed until the student is officially enrolled.

Prospective freshmen apply for scholarships by completing the [ApplyTexas](#) application or the [Coalition for College](#) application. Continuing and transfer students may apply for annually awarded

scholarships by completing the [UT Austin Continuing and Transfer Student Scholarship Application](#). For more information, including deadlines, see [Scholarships](#) on the Texas One Stop website.

**Course load requirements.** Most financial aid programs are based on a minimum full-time enrollment of 12 credit hours for undergraduate students and from nine to 15 credit hours for graduate students, depending on the student's academic program. Students may receive financial aid for less than full-time enrollment, but the amount of aid awarded may be adjusted based on the student's final enrollment status. Some financial aid programs require that award amounts be reduced proportionally for less than full-time enrollment. To receive financial assistance for summer session, students (except those admitted as transient/non-degree-seeking) must enroll for classes in a designated summer session.

**Changes in financial circumstances.** Students are responsible for reporting to the Office of Scholarships and Financial Aid any change in their financial resources that occurs after the initial application for aid is submitted. A documented decrease in resources may make a student eligible for an increase in financial aid, if funds are available; an increase in resources may result in a reduction or cancellation of financial aid funds or a requirement to repay awards already released to the student. Students can submit a [Reduction in Income Appeal Form](#) to report changes in student or parent income.

**Satisfactory Academic Progress.** Federal law requires that institutions of higher education monitor the academic progress of students who receive federal financial aid. In order to remain eligible for federal, state, and some institutional financial aid, students must comply with The University of Texas at Austin's standards for Satisfactory Academic Progress (SAP); requirements for satisfactory progress are:

1. **Minimum GPA:** An undergraduate student must maintain a cumulative University grade point average (GPA) of at least 2.00. A graduate student must maintain a cumulative GPA of at least 3.00.
2. **Minimum Pace:** A student must successfully complete at least 75% of the credit hours they attempt.
3. **Maximum Timeframe:** A student may attempt no more than 134% of the credit hours required by their degree program.

Undergraduate students who have received financial aid will be evaluated for SAP at the end of every semester. Graduate students will be evaluated annually at the end of the spring semester. For more specific information about the policy and the appeal procedure, see [Maintaining Eligibility](#) on the Texas One Stop website.

## Types of Financial Aid

A student who submits a FAFSA or TASFA is considered for all applicable federal, state, and institutional funds that are administered by the Office of Scholarships and Financial Aid. The composition of the aid package depends on the characteristics of the student, including program eligibility and degree of financial need, as well as on the availability of funds. For more information, see [Types of Financial Aid](#) on the Texas One Stop website.

## Scholarships and Grants

Students who apply for financial assistance by the priority deadline are considered for all scholarship and grant awards administered through the Office of Scholarships and Financial Aid. To be considered for a Federal Pell Grant, a student must be enrolled as an undergraduate and have not yet received a bachelor's degree. Many scholarships and grants awarded through the financial aid process are based on financial

need. For more information, see [Scholarships](#) or [Grants](#) on the Texas One Stop website.

In addition to specific qualifications for competitive undergraduate scholarships and fellowships awarded by the University, the entity responsible for selecting recipients for a given scholarship or fellowship may consider such factors as the following in designating recipients:

- Standardized test scores
- Class rank
- Grade point average
- Leadership and extracurricular activities
- Status in national academic competitions
- Academic performance within a major and other performance criteria
- Financial need
- Educational level

## Loans

Federal loan programs are available to assist students with cost of attendance at the university. These programs have interest rates that may be adjusted annually and do not require repayment of principle or interest until the student has graduated or is no longer enrolled half-time. In addition, the loans offer a grace period between the time the student leaves school and the time repayment begins. Deferment or cancellation of repayment is available for certain situations, such as military service, periods of unemployment, or teaching service in designated schools.

Federal and state loans are available to both students and parents of students who do not show financial need. Interest rates on these loans are set by federal and state law. Under certain conditions, repayment of these loans may be deferred while the student is enrolled in school. For more information, see [Loans](#) on the Texas One Stop website.

## Work-Study

Federal, state and institutional work-study programs provide jobs for students who show financial need and want to earn money to cover part of their educational expenses while attending school. The majority of work-study jobs are on campus, though some may be at off-campus nonprofit agencies. Depending on their educational interests and experience, students may choose from a variety of employment opportunities. For more information, see [Work Study](#) on the Texas One Stop website.

## Other Services Not Based on Financial Need

**Emergency Loans.** Short-term loans are available for emergency expenses related to educational costs. For more information on what type of short-term loans are available, visit [Loans](#) on the Texas One Stop website.

**Student Employment.** In addition to overseeing the work-study program at The University of Texas at Austin, the Office of Scholarships and Financial Aid works in conjunction with Texas Career Engagement assisting students in finding part-time, seasonal, and summer employment through [HireUTexas powered by Handshake](#).

## Requirements for Student Borrowers

**Mandatory counseling sessions.** Prior to receiving the first disbursement of a Federal Direct Subsidized or Unsubsidized Loan, Federal Direct Graduate PLUS, or Federal Perkins Loan, student borrowers must complete an online loan counseling session, in which they receive information about their obligations, rights, and privileges as borrowers. In

addition, student loan recipients who withdraw, graduate, or drop to less than half-time will be required to complete an online exit interview. The exit interview gives information about their repayment obligations and the consequences of failure to repay.

**Identification and release of official transcript.** Records of students who have received loans are identified to the Office of the Registrar. Students may not obtain official academic transcripts if they fail to repay federal, state, or University loans under the terms and conditions to which they agreed when they applied for the loans.

## Tuition Refunds and Repayment of Financial Aid

Students who are awarded financial aid for a specific semester but cease attendance/withdraw prior to the beginning of classes are required to repay all funds released back to the University. Students who cease attendance/withdraw after the beginning of classes may be required to repay at least some portion of the funds received. The amount to be repaid is calculated according to a repayment policy determined by the Office of Scholarships and Financial Aid, according to federal regulations. Repayment varies depending on the amount and type of funds received and when the student leaves the University. Any refund of tuition or University housing charges due to a student may be used to meet the repayment requirement.

Students who received financial aid may have all or part of the calculated refund credited to the student aid programs from which the student was paid. The remaining refund, if any, will be paid to the student.

Federal regulations require that refunds due to student aid programs be credited in the following order: (1) Federal Direct Unsubsidized Loan; (2) Federal Direct Subsidized Loan; (3) Federal Direct Grad Plus; (4) Federal Direct Parent Loan for Undergraduate Students; (5) Federal Pell Grant; (6) Federal Supplemental Educational Opportunity Grant; (7) other federal student aid programs; (8) nonfederal student aid program. Nonfederal student aid programs are refunded in the following order: (1) state grants; (2) institution grants; (3) state loans; (4) scholarships, if specified by donor.

## New Student Services

New Student Services (NSS) assists in the successful transition of the University's incoming and first-year students by coordinating programs that promote a sense of belonging, engagement and academic success.

### Orientation

NSS oversees and coordinates orientation for incoming freshman and transfer undergraduate students at the beginning of each fall, spring, and summer school semesters. Student orientation programs are designed to aid in the transition experiences of newly admitted undergraduate students into the academic, cultural, and social climate of the University. New Student Services serves new freshman and transfer students by: acclimating them to the campus and surrounding community; providing information and assistance concerning academic policies, procedures, requirements, and class registration; serving as a campus information and referral agent; and hosting opportunities for campus offices and organizations to interact with new students through programs and events. NSS strives to provide a holistic, encompassing student development approach to new student programming to achieve goals that ultimately support the missions of NSS, its division and the University. Student fees provide the entire budget for all student programs and services coordinated by the unit.

## Additional Services

In addition to orientation, NSS coordinates various programs and initiatives that help students in their transition to the University throughout the academic year. These initiatives include but are not limited to an off-campus student outreach; first-generation student initiatives; autism spectrum and neurodiversity support for students which includes education and awareness training for faculty and staff; new student welcome programs including Longhorn Welcome and Spring Welcome; Horns Helping Horns, which serves financially independent students who have little or no family support and limited resources.

## Office of the Registrar

The role of the Office of the Registrar is to create, maintain, certify, and protect the University's records of courses, degrees, and students. Among the office's core functions are to:

- Maintain the official course inventory
- Publish catalogs, course schedules, final exam schedules, and the academic calendar
- Coordinate the use of classrooms
- Register students for classes and manage the add/drop process
- Ensure the accuracy and privacy of student academic records
- Collect grades and determine students' scholastic status
- Issue diplomas, transcripts, and certifications of enrollment status
- Determine and certify students' academic progress
- Certify veteran education benefits and student-athletes for NCAA eligibility and competition
- Identify, adopt, develop, and deploy technological services related to the core functions of the office, the student service needs of the University, and the higher education community in the United States

A detailed description of the items included in the academic record and on the transcript is given in [Appendix C, subchapter 9–200, Directory Information and Student Records](#) (p. 112). More information about the registrar's office, including contact information for each section, is given on the office's [website](#). The Office of the Registrar website also provides easy access to the [Course Schedule](#), [online catalogs](#), and [academic calendars](#). Some services the registrar's office provides are accessible via the [Texas One Stop](#), such as secure sites where students may [register](#) for classes, update their [personal information](#), request and view [degree audits](#), apply for [veteran education benefits](#), and [order transcripts](#).

## Texas One Stop for Enrollment Services

As part of the University's commitment to providing exceptional customer service to support student success, the Texas One Stop for Enrollment Services was developed in late 2019 to maximize service to students and make it easier for them to get help with registration, financial aid, and billing in one central location while maintaining the high standards for compliance and integrity of student records.

In a newly remodeled location on the ground floor of the UT Tower (MAI 1), Texas One Stop offers upgraded technology and professional staff support who are cross-trained in registration and records, student accounts, and financial aid.

Along with the new, integrated center, the virtual [Texas One Stop website](#) launched in November 2019 to help students find important information easily to complete important steps in the enrollment process. The launch of the website included the new Bevo Bot automated chatbot to provide

immediate answers to questions and connect students to the resources they're looking for.

Texas One Stop offers students:

- A central location to have questions answered regarding financial aid, billing, payment, registration and records.
- Support by having cross-trained staff answer questions from a student-life-cycle perspective.
- Updated technologies and support to better serve students across campus.
- A central website with student-focused content to support student success.

## University Health Services

University Health Services (UHS) is part of the Division of Student Affairs. Located in the Student Services Building, UHS is a fully accredited ambulatory healthcare facility. It provides medical services primarily for currently enrolled students at The University of Texas at Austin and extends its travel health, physical therapy and nutrition services to university faculty and staff. UHS offers certain services for some non-students who are officially enrolled in particular university programs. UHS also provides public health leadership and initiatives, including the promotion of a healthy campus.

The medical staff includes board-certified physicians (family medicine, internal medicine and sports medicine), nurse practitioners, physician assistants, physical therapists, a registered dietitian and, in conjunction with the Counseling and Mental Health Center (CMHC), an integrated behavioral health team. UHS offers laboratory, radiology and ultrasound services and other specialty services including an allergy shot/immunization/travel health clinic, women's health and sports medicine.

For routine health concerns, students can schedule appointments by calling (512) 471-4955 on weekdays during posted business hours. Students can also schedule many types of appointments [online](#). Students whose illness or injury requires prompt medical attention may be asked to come to UHS for an urgent care visit not requiring an appointment. Regular operating hours, as well as those for the summer semester, holidays and semester breaks, are posted on the UHS [website](#).

Students with medical emergencies should go directly to an emergency facility or call 911.

The UHS Nurse Advice Line, (512) 475-NURS (6877), is available 24 hours a day to offer guidance to ill or injured students. Students who need medical treatment when UHS is closed must go to a healthcare facility in the community and are responsible for any charges incurred.

The Longhorn Wellness Center (LWC), part of UHS and CMHC, supports student life and academic success by addressing relevant health topics including high risk drinking prevention, suicide prevention, bystander interventions, sleep promotion, healthy sexuality, interpersonal violence prevention, active living and mental health promotion. The LWC uses multi-level, evidence-based prevention strategies such as peer education, social marketing, social norms initiatives, environmental change strategies and strategic campus partnerships.

There are charges associated with UHS clinic visits. The complete University Health Services Charges Statement is posted on the UHS [website](#).

Students sometimes are affected by medical conditions beyond the scope of services offered by UHS. Payment for services at other healthcare facilities is the sole responsibility of the student; therefore, students are encouraged to purchase the optional student health

insurance plan or have insurance coverage under another policy. Additional information about the student health insurance plan can be found [here](#).

UHS accepts most types of health insurance; however, students are not required to have health insurance to use UHS. For more information, including types of plans with which claims cannot be filed, go to the UHS [website](#).

## Counseling and Mental Health Center

The [Counseling and Mental Health Center](#) (CMHC or center) is in the Division of Student Affairs and assists University of Texas at Austin students in coping effectively with aspects of their personal, social and psychological well-being and growth, so they may realize their full academic potential. CMHC programs address problems that can affect day-to-day living; respond to student crises; support student mental health, well-being and safety; and prepare the student to respond more effectively to the challenges of university life. The center also provides support to the University community by consulting with faculty, staff and administrators and by responding to traumatic events affecting university students.

CMHC services include brief assessment for referral to the most appropriate CMHC or community service; short-term individual counseling; group counseling; support and skills development workshops; psychiatric evaluation and medication, if indicated, and prevention and education programs designed to support student safety, growth and development. Crisis counseling is provided during business hours, and a 24-hour crisis line is available at (512) 471-CALL (471-2255).

CMHC is committed to the promotion and affirmation of diversity in its broadest sense. Its mission requires that people of every background be able to use its services with the expectation of respectful treatment. CMHC's [diversity counseling and outreach specialists](#) include clinicians with specialized interests, training and knowledge in serving the University's diverse student population. The CMHC [Statement on Diversity](#) is published online.

The [Counselors in Academic Residence \(CARE\)](#) program provides convenient and easily-accessible counseling for students in most colleges and schools as well as consultation for their faculty and staff. The [Integrated Health Program](#), a collaboration with University Health Services (UHS), offers mental health services, self-help MindBody Labs for stress reduction and biofeedback and classes on stress management and mindfulness. The [Voices Against Violence Program](#) provides clinical services for survivors of interpersonal violence including crisis, individual and group counseling. The [Mindful Eating Program](#) provides treatment options for students with disordered eating or body image concerns. The [Alcohol and Other Drugs Program](#) provides assessment, support services and short-term counseling for students with alcohol and other drug use/abuse issues.

The Longhorn Wellness Center, part of the CMHC and UHS, supports student life and academic success by addressing relevant health topics including high risk drinking prevention, suicide prevention, bystander intervention, sleep promotion, healthy sexuality, interpersonal violence prevention, active living and mental health promotion. The Longhorn Wellness Center uses multi-level, evidence-based prevention strategies such as peer education, social marketing, social norms initiatives, environmental change strategies and strategic campus partnerships.

CMHC clinical staff includes counseling and clinical psychologists, professional counselors, psychiatrists and social workers. It is approved by the American Psychological Association for internship training and

cooperates with The University of Texas at Austin departments of clinical psychology, educational psychology and the Steve Hicks School of Social Work in training intern and practicum students. Additionally, CMHC cooperates with The University of Texas at Austin School of Nursing in training psychiatric nurse practitioner students, The University of Texas at Austin College of Pharmacy in training pharmacy residents and The University of Texas at Austin Dell Medical School Psychiatry Residency Program in training psychiatry residents.

The CMHC is located on the fifth floor of the Student Services Building, 100 West Dean Keeton Street, and is open weekdays 8:00 am to 5:00 pm. The telephone number is (512) 471-3515.

## Sanger Learning Center

The Sanger Learning Center is a university-wide learning resource dedicated to students' mastery of course content and development of transferable academic and professional skills; the center's services are described in the [Undergraduate Catalog](#) and on the [Sanger Learning Center website](#).

## Advising and Career Counseling Texas Career Engagement

[Texas Career Engagement](#) is a campus-serving unit that provides career-related programming, services and resources to all University of Texas at Austin undergraduate, graduate, and professional students, and ensures equitable access to talent across the institution for employers. Our collective work helps students discover career options, complement academics with experiential learning, develop professional skills, connect with employers for internships and employment, and prepare for advanced-degree programs. At our core, Texas Career Engagement exists to advance equitable access to career education, experiences, opportunities, and success.

### Internships and Career Experiences

The Texas Career Engagement Internships and Career Experiences program creates, supports and provides experiential learning opportunities for students and faculty. This is done through the creation of internship credit courses, workshops, programmatic support, curricular resources for faculty, and curricular and co-curricular experiences that enhance learning with career readiness. In partnership with employers, campus, and alumni, we strive to prepare students for lifetime career success through the development of high-impact learning programs and resources. We are committed to the removal of barriers so that all University of Texas at Austin students have access to experiential learning and professional development opportunities.

## Vick Center for Strategic Advising

The Vick Center for Strategic Advising helps students explore academic and career possibilities to make informed decisions about their future. Academic advisors help students transition into majors and provide advising related to the Core Curriculum and the Skills & Experience Flags. The center's services are described in the [Undergraduate Catalog](#) and on the [Vick Center website](#). Career counseling is offered through [Texas Career Engagement](#). Assistance with job searching and placement is provided by career services offices within individual colleges and schools.

## The University Unions

[The University Unions](#) serve to enrich campus life, complement the academic mission, and be vital to the student experience, as well as provide related goods and services to the campus community.

The University Unions have two primary Union facilities, the [Texas Union](#) and the [William C. Powers, Jr. Student Activity Center](#), and three additional managed spaces that serve as community centers for The University of Texas at Austin. All of our facilities offer space for studying, programming, informal gathering, and items for purchase in stores, including a wide variety of food and beverage services. In addition, there are outdoor gathering spaces, patios, and [mobile food truck locations](#) for the campus community.

[Campus Events + Entertainment](#) offers programs for intellectual, cultural, social, and recreational development. Events + Entertainment is chartered by University Unions to organize and present a program of activities and events for the University student body in areas of general interest. Through these opportunities, students can strengthen their leadership experience, self-expression, and management skills.

[The University Unions Board of Directors](#) recommends policy for the University Unions. The voting membership of the board includes six students and three faculty members. The executive director of the University Unions and appointee of the vice president for student affairs, serve as ex officio members without vote.

## Division of Diversity and Community Engagement

The [Division of Diversity and Community Engagement \(DDCE\)](#) works with a broad range of student, faculty, staff, and community constituents to make The University of Texas at Austin a national model for diversity and community engagement in higher education. The division strives to create an inclusive community on campus that fosters an open and robust learning environment that supports all students, faculty, and staff. It also works to help the University meet its mission of service and create pathways for success for underserved students throughout the state.

The DDCE includes more than fifty units, programs, projects, and initiatives and works in four strategic areas: campus culture, community engagement, pre-K-16 education pipeline, and research.

The DDCE also provides diversity education training through its [Dynamics in Diversity certificate courses](#).

The [Gender and Sexuality Center](#) provides opportunities for all members of the UT Austin community to explore, organize, and promote learning around issues of gender and sexuality. The center also facilitates a greater responsiveness to the needs of women and the LGBTQIA+ communities through education, outreach, and advocacy.

The [Hogg Foundation for Mental Health](#) (p. 84) funds and advocates for programs in mental health service research and public policy analysis.

[Inclusive Innovation and Entrepreneurship](#) uses entrepreneurship as a method for promoting student success on campus and in their careers, collaboration among disciplines, and student impact on community issues through initiatives like Product Prodigy and WIELD TX .

The [Longhorn Center for Academic Equity](#) offers a variety of programs and services to assist University students, including the First-Gen Equity program, Gateway Scholars, McNair Scholars, Fearless Leadership Institute, Latina and Indigenous Leadership Institute, the Heman Sweatt

Center for Black Males, and the Global Leadership Program. It also features several college to career programs for sophomores and juniors interested in careers in law or merchandising.

[First-Gen Equity](#) offers a suite of services free of charge to any UT first-generation college student who wishes to opt in. These services include mentorship, success coaches and STEM tutoring and many other resources and connections. The [Gateway Scholars program](#) is a student success program designed to facilitate and enhance students' transition to and through college. We support our students to complete college successfully and become top-notch competitors in the global job market upon graduation.

The [Center for Community Engagement \(CCE\)](#) fosters and supports the development of academic service learning classes on campus and connects students, faculty, and staff to service projects on campus and throughout the greater Austin area. The [John S. Chase Building](#) pays homage to one of the first Black students at UT, John Saunders Chase. The University bought the building which he designed to serve as our East Austin location of the CCE. When it opens later in 2021, it will serve as a center for community engagement activities and collaboration around social justice, economic development, education, health care, and equity and access issues. It will also house the [Texas Grants Resource Center](#), which helps students, faculty, and the public find funding for research projects and nonprofit activities.

The [Longhorn Center for School Partnerships](#) works with public schools throughout the state to help students from under-represented schools prepare for college. The LCSP includes the [Neighborhood Longhorns Program](#) which works with approximately 6,000 Title 1 students in the Austin Independent School District; [Dual Enrollment Initiatives](#) offer high school-college credit courses in mathematics, chemistry, and writing; five [UT Youth Engagement Centers](#) in Austin, Dallas, Houston, the Rio Grande Valley, and San Antonio that help students prepare for college; and [ADVISE TX](#), which places recent UT grads in 21 schools across the state to serve as college advisors.

The [Office for Inclusion and Equity](#) aids the University in fulfilling the intent and spirit of equal opportunity laws by providing equitable resolutions to complaints and striving for an environment free of discrimination.

[Services for Students with Disabilities](#) works to ensure that all students have equal access to the University's programs and services. Eligibility and specific accommodations are based on appropriate documentation and individual student needs.

Student Diversity Initiatives works with students to create safe environments through two centers: the [Gender and Sexuality Center](#), which provides resources for all members of the campus community to explore and organize around issues of gender and sexuality through education and outreach, and the [Multicultural Engagement Center](#), which develops leaders and provides training to students on the multicultural and diverse society in which we live.

The [University Interscholastic League \(UIL\)](#), created to provide leadership and guidance to public school debate and athletics teachers, has grown into the largest organization of its kind in the world, sponsoring regional and state-wide academic and athletic competitions. UIL reaches every school district in the state and has played a large role in developing young leaders and in providing avenues for success of public school students.

The [University of Texas Elementary School](#) is a research-based demonstration school located in East Austin that serves as a training and development site for future teachers, school nurses, speech therapists, social workers, counselors, and psychologists. The University

[of Texas-University Charter School](#) includes 24 campuses around the state that serve approximately 2,000 K-12 students with special needs, including a number of students in foster care settings.

For a more complete listing of DDCE programs initiatives, please see the bottom of the [DDCE home page](#).

## Texas Global

Texas Global is the central home for [international student and scholar services](#), [education abroad](#), [English as a second language instruction](#), [global risk and safety](#), and [cross-disciplinary international projects](#). The office is located at 2400 Nueces and is open 8:00 am to 5:00 pm Monday through Friday. The telephone number is (512) 471-1211.

## International Student and Scholar Services

Advisors who are aware of the demands associated with studying in another country are available to assist international students with matters related to their immigration status, cross-cultural adjustment, orientation to the University, financial aid, health insurance, housing, employment, income tax status, social security regulations, and personal problems or concerns. International Student and Scholar Services (ISSS) also assists in case of an emergency involving an international student or the student's family. More information about [ISSS office hours and services](#) is published by Texas Global.

**Sponsored Student Program.** International students and sponsors of international students are provided advisors, special financial arrangements, required certifications, and supervision while in academic status and under sponsorship.

**SEVIS and immigration regulation compliance.** Student immigration advisors are available to assist international students with issues regarding immigration status and the immigration service. For example, in accordance with immigration regulations, an international student who seeks to be enrolled for fewer than twelve hours as an undergraduate or fewer than nine hours as a graduate student is referred to ISSS. Withdrawal petitions for international students are referred to ISSS before final action is taken by the appropriate academic dean's office.

**Special programs.** The office administers special contract programs consistent with the academic objectives of the University and handles special arrangements for groups, including visiting representatives of other nations.

**Mandatory health insurance.** The [Student Health Insurance Program](#) is mandatory for international students, and the cost is included in the student's tuition bill each semester. A student who has an acceptable level of coverage under another insurance plan may request a waiver of the mandatory plan through ISSS prior to the twelfth class day each long semester. Dependents in J-2 (exchange visitor) status are also required to have an acceptable level of coverage.

## English Language Center

Several kinds of classes in English for nonnative speakers are available through the English Language Center. More information about the English Language Center is published by [Texas Global](#).

**Classes for University undergraduate and international exchange students.** The English Language Center offers several courses for undergraduate students who need English language support. Each five-hour course counts toward full-time enrollment, but the courses do not count toward The University of Texas at Austin's degree requirements.

However, most exchange students may count the credits towards degree requirements in their home universities. Courses are available for English language improvement in reading, writing, grammar or listening/speaking. Students take a placement test after enrolling and are integrated into one of seven levels for each course. [More information](#) about English Language Center classes for undergraduate and international exchange students is published by the Texas Global.

**Classes for University graduate students.** The English Language Center offers several courses for graduate students who would like to improve their English or are required by their departments to do so. Each three-semester-hour course counts toward full-time enrollment, but the courses do not count toward degree requirements. Courses are available in oral communication, academic writing, communication for international teaching assistants. [More information](#) about English Language Center classes for graduate students is published by Texas Global.

**Classes for everyone.** The English Language Center offers two intensive English programs that are open to adult nonnative speakers of English. The *Academic English Program* (AEP) is a full-time academic program for prospective graduate students who have completed their first university degree and plan to pursue a master's or doctoral degree in the United States. English proficiency at the intermediate level or above is required for admission to the program. The *English Language Program* (ELP) provides both full-time and part-time instruction in general-purpose English for students at all levels of English proficiency, including prospective undergraduates and those interested in improving their communication skills. Both programs offer optional test preparation instruction for the Test of English as a Foreign Language (TOEFL) and other admission tests. Discounts are available for part-time study by University students, staff members, and faculty members and University-affiliated family members. More information about these courses can be found [online](#).

## Education Abroad

Education Abroad provides information on educational opportunities in other countries, including study abroad, exchange, international internships, research abroad, and study abroad scholarships. Information sessions are offered throughout the year; students are strongly encouraged to attend a session before seeking staff assistance in selecting the program most appropriate to their needs and interests. Session topics, dates, and times can be found on the Education Abroad [website](#).

University programs available to students include reciprocal exchanges with foreign universities; affiliated studies through other organizations and institutions; faculty-led programs, including Maymesters Abroad; internships and international study and research. Students pay a \$75 fee to defray the cost of processing applications and of tracking education abroad applicants and students who are abroad; the fee also encourages students to think carefully about the application to go abroad. The application fee is nonrefundable, regardless of whether the student is accepted by or enrolls in a program.

## Exchange Programs

Exchange programs allow The University of Texas at Austin's students to enroll at a partner university abroad while continuing to pay The University of Texas at Austin's tuition. These cost-effective programs integrate University students into the host university and provide access to courses applicable to the University's degree plans. Students in exchange programs register for a block of coursework in Education Abroad. Students pay a \$500 fee per semester to participate in an exchange. Faculty members in the appropriate academic departments review the student's work to identify equivalent University courses;

Education Abroad staff convert grades from the foreign credit system used by the host institution into their University equivalents. Courses and grades are recorded as resident credit. All courses reported to The University of Texas at Austin on the official transcript from abroad must be represented in some way on the official University transcript.

## Affiliated Programs

Students register for affiliated studies (A S) when they participate in study abroad programs offered by organizations and institutions with which the University has an affiliation agreement. Students enrolled in affiliated studies pay a fee of \$600 per semester and are considered full-time students by the University.

After a student takes part in a program offered under an affiliation agreement, University faculty members in the appropriate academic units review the student's work to identify the equivalent University courses. Courses and grades appear on the student's academic record, but they are not included in the University grade point average. A student must make a C- or better to earn credit in accordance with UT transfer credit policies. In some circumstances, affiliated studies credit is treated as resident credit; more information is given in the [General Requirements for Graduation](#) in the *Undergraduate Catalog*.

## Faculty-Led Programs

Academic units may offer courses taught abroad as a part of their regular curriculum. Students who take these courses follow normal registration procedures and are assessed normal tuition and fees. Additional fees are charged to cover program costs.

## International Study and Research

Students may register for international study and research (ISR) if they are conducting research or studying independently abroad. Enrollment requires the approval of the student's faculty sponsor, graduate advisor (for graduate students) or departmental undergraduate advisor (for undergraduates), and Education Abroad. The approval may cover up to four consecutive long-session semesters and contiguous summer sessions.

Students enrolled in international study and research pay a fee of \$600 a semester and are considered full-time students by the University.

Students who register for international study and research are not guaranteed credit for work completed abroad. Students must consult with the departmental undergraduate advisor or the graduate advisor and with the Graduate and International Admissions Center to determine whether credit will be granted.

## Financial Assistance

Financial aid, including loans, scholarships, and grants, may be applied toward the cost of study abroad. If study abroad costs exceed the on-campus cost of attending the University, and if the student is eligible for additional aid, the Office of Scholarships and Financial Aid will repackage the student's aid award based on the budget submitted by the Education Abroad program coordinator, with one exception: students registered for international study and research abroad are not eligible to receive federal financial aid; however, they may use scholarships and grants awarded by the University and outside agencies.

Information about other funding opportunities for study abroad is available on the Education Abroad [website](#). The office administers the campus competition for a number of local and federal grants and scholarships, including the IIE Fulbright and the University's International Education Fee Scholarship (IEFS).

## Overseas Insurance

Ensuring that The University of Texas at Austin's students have adequate health and safety support while abroad is a primary goal of the University. All students participating in approved international activities as stipulated by the [Student Travel Policy for International Locations](#) are required to pay the [International Insurance Coverage Fee](#). This fee has been established to ensure that all students are systematically and comprehensively covered by an international health insurance policy, an emergency services policy, and a general liability policy. The fee is non-refundable and is scaled to correspond to the length of international activity. Students are also encouraged to maintain their domestic health insurance coverage.

## Transfer Credit Policies for Coursework from international Institutions

Evaluation by the Office of Admissions of course credit earned at an international institution does not constitute approval of the credit for use toward a degree; such approval is solely within the jurisdiction of the student's academic dean. Policies governing the evaluation of transfer credit from international institutions include the following:

1. Transfer credit is generally awarded for academic course credit earned from Ministry of Education–accredited institutions.
2. Rules governing the assignment of transfer credit from United States institutions also apply to transfer credit from international institutions. These rules are given in [Transfer Application Review Process](#) (p. 21).
3. To receive credit, the student must earn a grade that is comparable to a C- on the grading scale used at the University. The Graduate and International Admissions Center establishes grading scale equivalencies for international institutions.
4. If the credit was not earned as part of a University-affiliated study abroad program, the symbol *CR* (credit) will appear on the student's University record instead of a letter grade.
5. Transfer credit from a nonaffiliated study abroad (language and culture) program is not assigned a specific University course number. Instead, undesignated credit may be recorded, and the student's academic dean will determine the specific credit to be allowed for degree purposes on a substitution basis. Both current and previously enrolled University students who attend a nonaffiliated study abroad program may be required, at the discretion of the appropriate language department, to take an examination to earn credit for specific language courses.

## Student Government

Established in 1902 (as the Students' Association), Student Government serves as a recognized forum for student opinion. The membership includes every student enrolled at the University; official actions of the organization are carried out by the Executive Board, the Assembly, and the Supreme Court.

Student Government was instrumental in establishing many student services, including University Health Services, the summer orientation program, the shuttle bus system, a walking escort service, a multicultural information center, childcare services, student cable television, and student radio. Student Government also provides input and initiatives to the University administration, the city council, and the state legislature on such matters as minority recruitment and retention, tuition increases, faculty evaluations, class availability, and the quality of undergraduate education. Student Government appoints students to the Faculty Council, the University Unions Board of Directors, and the Student

Services Budget Committee, and nominates students to the standing committees of the General Faculty.

Student Government projects cover a wide range of issues; any student may join a committee and work on a project. Elections for president, vice president, and members of the Assembly are held each spring. More information about Student Government is available at the [website](#) and in the Student Government office located in suite 2.102 of the William C. Powers, Jr. Student Activity Center.

## Senate of College Councils

The Senate of College Councils is the coordinating body for the individual college councils, which are composed of student leaders enrolled in the University's colleges and schools. Since 1973, the Senate of College Councils has worked directly with the councils to promote academic programs, to encourage teaching excellence, and to represent student opinion on academic issues to the administration. The Senate of College Councils reviews the budgetary policies and approves the annual budgets of each of the college councils funded by the Student Services Budget Committee. Two members serve on the Faculty Council, which is responsible for evaluating undergraduate curricular changes and degree programs for the University. The Senate of College Councils also works with Student Government to accomplish goals that benefit all University students. More information about the Senate of College Councils is available at the [website](#) and in the Senate of College Councils office located in suite 2.102 of the William C. Powers, Jr. Student Activity Center.

## Graduate Student Assembly

The Graduate Student Assembly (GSA) is the official representative body for graduate students. GSA addresses issues that are important to its constituents, not only as students but also as teaching assistants, research assistants, and assistant instructors. GSA reports administratively to the dean of the Graduate School and senior vice provost for academic affairs as well as the vice president for student affairs. Administrative expenses are funded through an allocation from students' tuition.

The objectives of GSA are to represent the views of graduate students to the University community and the community at large; to facilitate graduate student communication and interaction; to gather and disseminate information pertinent to graduate students; to conduct activities that promote the general welfare of graduate students; and to provide a means of assisting in the selection of graduate student members of departmental, college, and University bodies.

More information about GSA, including contact information for officers, current representatives, meeting agendas and minutes, and current and past activities, is available at the [GSA website](#).

## Student Media

Texas Student Media (TSM) offers an incredible range of real-world work experience for students in several areas of student-managed media. With opportunities in print, television, radio, and advertising, students learn skills that can prove invaluable once they begin their professional careers. Texas Student Media attracts and welcomes a diverse group of students from a variety of interests, ethnicities, cultural backgrounds, and majors.

TSM comprises the following student-managed and student-produced media entities: *The Daily Texan* newspaper, KVRX 91.7 FM radio, Texas Student Television (TSTV), the *Cactus* yearbook, [burntX.com](#), and the *Texas Travesty* humor publication. Additional experiential opportunities

exist with *Texas Connect*, beovideo.com, and advertising sales. Texas Student Media is supported through University funding allocated by the Student Services Budget Committee, and through efforts of a sales team that sells advertisements and performs promotional/marketing duties.

TSM is administratively supported by the Moody College of Communication and is governed by an eleven-member Board of Operating Trustees composed of six student members elected by the student body, three faculty members, and two media professionals appointed by the president. Student managers (editors and station managers) are appointed by the Operating Trustees, while the *Daily Texan* editor-in-chief is elected by the student body. Student managers, the Texas Student Media director, and representatives from Student Government and the Office of the Dean of Students serve as non-voting board members.

Students interested in being a part of one or more of TSM's media entities should visit [participateTSM.com](http://participateTSM.com).

## Legal Services for Students

Legal Services for Students (LSS) provides counsel and guidance to currently enrolled UT Austin students with legal questions or concerns. A licensed attorney is available to support students in matters concerning various areas of law, including landlord-tenant disputes, criminal citations, small claims court, vehicle collisions and insurance, personal injury, powers of attorney, and consumer matters. These services are provided in a confidential consultation, at no additional cost to the student.

LSS does not provide representation or advocacy on behalf of individual students with regard to their potential legal claims or disputes. If the situation requires legal representation, LSS will provide referrals to other legal resources and information.

LSS also offers seminars, workshops, and presentations to student groups and classes to educate students about legal issues before conflicts arise. A free notarization service is also available to all registered students during normal business hours.

## Office of the University Ombuds for Students

The Office of the University Ombuds for Students provides a neutral, impartial, and confidential environment for students to voice concerns related to life at The University of Texas at Austin, and provides information and assistance to students who have University-related questions, concerns, or complaints. The office functions in an independent and informal manner to help students explore options for effective problem solving and conflict resolution. The office also identifies and provides recommendations to the University regarding systemic issues. The Ombuds advocates for fair and equitably administered processes and does not side with individuals or the University. The office helps the University uphold the institutional core values, Student Honor Code, and University Code of Conduct.

The Office of the University Ombuds for Students:

- Provides students with information, referrals, and assistance with appropriate policies and processes for addressing University-related concerns.
- Helps students receive expeditious, fair, and impartial treatment.
- Provides students with voluntary conflict management for disputes and concerns related to student life at the University, both academic and nonacademic. This includes identification of options, policy

clarification, conflict coaching, mediation, training, and other conflict resolution or consultative services as appropriate.

In order to create a safe place for students to voice concerns, evaluate issues, and identify options, the office maintains privacy and confidentiality to the extent permitted by law and University policy. Additionally, the office is considered an informal and off the record resource, and does not maintain identifying records.

## Student Grievance Procedures

### Academic-Related Grievances

Academic grievances involving grade disputes should be discussed with the course instructor. Grade disputes that are not resolved and all other academic grievances of undergraduate students should be submitted in writing to the department chair or other designated administrator of the academic program to which the grievance relates. Appeals may be directed to the appropriate academic dean, who will render the final decision. A grade will not be changed by the department chair (or other designated administrator) and/or the dean without first consulting with and considering fully the position of the course instructor. The course instructor will be advised by the department chair, another appropriate administrator, or dean of the resolution of the grievance.

Procedures for the resolution of grievances of graduate students are specified in the [Handbook of Operating Procedures 9-1240](#).

The dean of the college or school in which a student is enrolled has jurisdiction over the student's program of study, degree requirements, and all other academic matters, including grievances, except as described below. A student pursuing simultaneous majors in two colleges is considered to be enrolled in both colleges and is under the jurisdiction of both deans. Students taking a course in a college or school other than the one(s) in which they are enrolled are subject, so far as the course and academic grievances regarding the course are concerned, to the dean of the college or school in which the course is offered. Procedures for cases of alleged academic dishonesty are given in [Appendix C, Sec 11-402](#) (p. 117).

### Student Program and Student Activity Related Grievances

Grievances related to non-academic student programs and activities should be submitted in writing to the dean of students or director of the specific student affairs area. Appeals may be directed to the vice president for student affairs, and then to the president for final disposition.

[Appendix C](#) (p. 89) of this catalog describes the institutional rules on student services and activities and includes provisions for formal hearings. Additional information on these provisions is available from the Office of the Dean of Students.

**Disability-related grievances.** No qualified disabled student shall, on the basis of disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any academic program or activity at The University of Texas at Austin. Complaints alleging discrimination on the basis of disability should be submitted according to the procedures outlined in the Nondiscrimination Policy, [Appendix I](#) (p. 150). The policy is in accord with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA).

**Sex discrimination and sexual conduct.** The following policies address sex discrimination and sexual conduct:

- Policy on Sex Discrimination, Sexual Harassment, Sexual Assault, Sexual Misconduct, Sexual Misconduct, Interpersonal Violence, and Stalking, [Appendix D](#) (p. 144)
- Policy on Consensual Relationships, [Appendix F](#) (p. 145)

**Hate and bias incidents.** The policy regarding acts of hate or bias and reporting such incidents is described in [HOP 9-1810](#).

## Discipline

Under the direction of the president, the dean of students has primary responsibility for the administration of student discipline.

**General statement.** The University's expectations for student conduct are grounded in the University Code of Conduct, which can be found in [Appendix C](#). University students are also expected to uphold the Student Honor Code and expected to abide by all city, state, and federal laws and statutes and all regulations of the University and the University of Texas System. However, as a community of scholars, the University expects from its students a higher standard of conduct than that required simply to avoid discipline. The principles of the Student Honor Code together with the University Code of Conduct should govern and direct student conduct to promote a safe environment that is conducive to academic success, and to ensure that each University student graduates ready to contribute to society as an ethical citizen.

**Academic dishonesty.** Since the value of a university degree depends on the absolute integrity of the work done by each student for that degree, a student should maintain a high standard of individual honor in their academic work.

Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, and misrepresenting facts. More information about academic dishonesty is given in [Appendix C, chapter 11](#) (p. 117).

**Group responsibility.** Any student organization is subject to disciplinary sanctions, including revocation of the group's registration as a student

## Student Parking

Students who drive or park a vehicle on campus must purchase a permit from Parking and Transportation Services (PTS). To park within the campus boundaries, a proper permit must be displayed as required. Purchase of a surface lot permit (A, C, M, N) does not assure a parking space in a specific lot. Purchase of a garage permit (R or S) generally assures an unassigned parking space in the garage in which it is valid. If you need to use a car, there is no free parking on campus aside from signed 30-minute loading zones. Everywhere else requires either a permit or payment of a fee to park.

Policies, fees, and regulations are given below. For the most recent information, students should visit the PTS [website](#) or email [parking@utexas.edu](mailto:parking@utexas.edu).

Students are eligible for the following types of parking permits:

1. Class C (surface student) parking permits are available to all students enrolled at the University. The fee is \$159 for the year. This permit allows parking in C and Longhorn lots.
2. Class C+ (surface student plus night garage access) parking permits are available to all students enrolled at the University. The fee is \$239 per year. This permit allows parking in C and Longhorn lots. It also allows parking in university garages, within the limits given for night garage access (N+) permits below.
3. Class D (students with disabilities) parking permits are available to qualifying students with disabilities. The fee is \$159 for the year. This permit requires display of a valid state-issued ADA license plate or placard to be valid. It allows parking in D, A, and C spaces as well as Longhorn Lots. It also allows parking in garage ADA SPACES.
4. Class D+ (special accommodation disabilities) parking permits are available to qualifying students with disabilities. The fee is \$318 for the year. This permit requires display of a valid state-issued ADA license plate or placard to be valid. It allows parking in the same areas as a Class D permit. Additionally, it allows parking in D+/Special Accommodation spaces throughout campus.
5. Class A (surface faculty/staff) parking permits are available to university graduate students who are also employed by the University for at least 20 hours a week. The student's employment must be verified by a signed copy of the appointment or reappointment form or a letter from the dean, director, or department chair. The fee is \$182 a year. This permit allows parking in A parking areas, in Longhorn lots, and in C lots after 2:00 p.m.
6. Class M (motorcycle/moped/motor scooter) parking permits are available to any university student. The fee is \$96 a year, but there is no charge for the first Class M permit with the purchase of another permit except an R, N, or N+ permit. The Class M permit allows parking in M parking

organization, for violation of the penal or civil statutes of the local, state, or federal government or a rule or regulation of the University of Texas System or a Regents' *Rule*, University regulation, or administrative rule. More information about discipline of student organizations is given in [Appendix C, chapter 6](#) (p. 97).

**Disciplinary procedures.** The University of Texas at Austin administers student discipline according to the procedures defined and described in the Regents' *Rules and Regulations*, Rule 50101, in the Model Policy of Student Conduct and Discipline promulgated by the Office of General Counsel of the University of Texas System and in [Appendix C, chapter 11](#) (p. 117).

## Religious Organizations

State institutions are constitutionally restricted with regard to the establishment of religion; however, many sectarian activities are available to students through the sponsorship of various denominational organizations. Several places of worship are located in the University area. A number of student centers are maintained near campus, and many student religious organizations are registered with the University.

## Shuttle Bus Service

The University shuttle bus system is operated for the benefit of students, faculty and staff members, and retirees of the University. The system is funded through students' tuition. Shuttle bus patrons should be prepared to show and/or swipe their UT IDs upon boarding.

Shuttle service is provided on scheduled class and final examination days. On most routes, service is not provided on holidays or on Saturdays that are not final examination days. Shuttle bus maps and schedules are available at the Parking and Transportation Services [website](#). Questions about routes or policies should be sent by e-mail ([shuttle@utexas.edu](mailto:shuttle@utexas.edu)).

areas; motorcycles, mopeds, and motor scooters may not be parked in automobile parking areas between 7:30 a.m. and 3:30 p.m. Monday through Friday.

7. Class R (garage resident student) parking permits are available to residents of university-owned housing located on the main campus. The fee is \$212, \$399, \$482 or \$508 for a semester, or \$318, \$718, \$867, or \$913 for two semesters, depending on the garage. Students may purchase a permit for the summer session. The fee is \$143 or \$186 depending on the garage. The Class R permit allows parking in R areas in the designated garage; it also allows parking in Longhorn lots.
8. Class S (garage commuting student) parking permits are available to University students who live off campus. The fee is \$212 or \$363 per semester, \$64 or \$143 for the summer session, \$318 or \$761 for 12 months, depending on the garage. Class S permits allow parking in the garage designated on the permit and in Longhorn lots.
9. Class N (night surface access) parking permits are available to anyone affiliated with the university. The fee is \$48 for the year. Class N permits allow parking Monday through Thursday from 5:45 p.m. to 7:30 a.m. and from Friday at 5:45 p.m. until Monday at 7:30 a.m. in otherwise unrestricted spaces and in spaces that require any UT permit.
10. Class N+ (night garage access) parking permits are available to anyone affiliated with the university. The fee is \$80 for the year. Class N+ permits allow weeknight and weekend surface parking within the limits described for the Class N permit. In addition, they allow parking when space is available in any University garage except the Conference Center, Health Center, and Rowling Hall Garages from 5:00 p.m. to 4:00 a.m., Monday through Thursday, and from 5:00 pm Friday to 4:00 am Monday.

Class C, C+, D, D+, M, N, N+, and A permits purchased in the fall semester are valid through August 16. Permits are prorated daily with the refunds for returned permits available until the last month in which the permit is valid. Additional fees may apply.

Parking may be restricted in any garage or surface lot for special events.

The following charges for violation of the Parking & Traffic Regulations have been submitted to the Board of Regents for their review/approval prior to the start of the 2020-2021 academic year. Parking and Transportation Services reserves the right to refer any violator to the Office of the Dean of Students or the appropriate academic dean, chair, or director.

<b>Violation</b>	<b>Penalty</b>
Unauthorized parking in an "AT ALL TIMES" space.	\$75
Improper method of parking.	\$35
Disabled vehicle.**	\$75
Unauthorized special event parking.	\$75
Inhabiting a vehicle of any kind on University property without authorization.	\$75
Parking overtime at a meter.	\$20
Improper use of a controlled access area or a key card.	\$75
Unauthorized parking in a space reserved for persons with disabilities.	\$200*
Unauthorized parking in Thompson Conference Center or LBJ Library lot.	\$35
Moped/motorcycle/motorbike parked in a space designated for four-wheeled vehicles.	\$25
Unregistered bicycle.	\$15
Bicycle or EPAMD parking in areas other than those designated for bicycles.**	\$25*
Violating temporary parking restrictions.	\$35
Parked in violation of set time parameters.	\$35
Idling at air intake louvers.**	\$35
Damage to PTS Property	\$100 + cost
Failure to display proper permit on a registered vehicle. (Three warning tickets per academic year, then \$15 per incident.)	warning/\$15
The unauthorized sale, distribution, possession, counterfeiting, or alteration of a university parking permit and/or the possession of an illegally purchased, distributed, counterfeited, or altered permit (plus cost of the permit)	\$250 + permit cost*+
Obstruction to vehicular or pedestrian traffic.**	\$35
Parking at a fire lane, fire hydrant, red, or yellow curb.**	\$75
Parking or driving on sidewalks, grass, or shrubbery (plus the actual cost of repairs).	\$35 + cost
Improper passenger pickup and drop off.	\$35
Exceeding 15 miles per hour speed limit or other posted speed limit on campus.	\$75
Violation of an official traffic control device, such as a STOP or YIELD sign.	\$75
Moving violation of Texas Motor Vehicle Laws not otherwise specified in these regulations.	\$75
Other non-moving violation of Texas Motor Vehicle Laws.	\$75
Moving a barricade or parking within any barricaded area or moving a vehicle without permission of owner/operator.**	\$35
Failure to stop and heed instructions given by a University police officer or guard.	\$75
Parking or operating a motor vehicle while privileges are suspended.**	\$200*
Having a vehicle of any type within a University building (except parking facilities).	\$20
Parking without authorized valid permit.	\$35

Theft of property or damaging property by either unauthorized boot removal or tampering/attempted removal of the boot (plus replacement cost of damaged property)	\$125 + cost
Improper exit from a university parking garage (plus maximum daily fee due).	\$75 + fee*
Vehicle relocation or towing.	\$125
Operation of a non-registered commercial scooter or dockless commercial bicycle on The University of Texas campus	\$35
Reckless Operation of a Vehicle	\$75
Unauthorized Parking on Speedway Pedestrian Mall	\$75
Unauthorized Entry into Speedway Pedestrian Mall	\$100
Scooter Impound: violation of scooter parking regulations related to a university event, parking in a manner that obstructs ADA access or parking, doorways, ramps and stairways, and on Speedway Mall and the Main Mall	\$150
Automobile Boot Fee	\$100
Bicycle Impound Fee	\$25
Commercial Scooter and Dockless Commercial Bicycle Impound Fee	\$75-\$150 + \$25/day storage fee

\*Penalty doubles upon second offense and all subsequent violations are subject to immobilization or impound.

\*\* Offense subject to citation and vehicle impound.

+ All relevant and currently outstanding fines and fees must be paid prior to the release of the boot.

## The Texas Exes

The Texas Exes, the alumni association for The University of Texas at Austin, was established in 1885 and now boasts more than 110,000 members. It is one of the largest alumni organizations in the nation. The association is self-governed and works to unite alumni and friends around the world, create a passionate voice that strengthens the University, promote alumni accomplishments, and celebrate Longhorn spirit and traditions.

Members of the Texas Exes support the mission of the association and receive benefits tailored for people who love UT Austin. Click [here](#) to join.

Three key pillars of the organization are advocacy, engagement, and scholarships.

[The Forty Acres Scholars Program](#), administered by the Texas Exes, is The University of Texas at Austin's premier full-ride, merit-based scholarship. The goal of the program is to inspire and nurture visionary leaders for the benefit of society.

News about the university and its more than 540,000 living alumni reaches members through the bimonthly *Alcalde* magazine and its [website](#). The association engages alumni and friends through its lively social channels, including [Facebook](#), [Twitter](#), and [Instagram](#).

There are around 150 Texas Exes [chapters and networks](#) across the globe. Chapters are geographically based groups that engage alumni through social, community service, cultural, business networking, student development, and scholarship-fundraising events. Networks are national groups organized around ethnicity, profession, or strong affinity to a University student organization.

The Texas Exes provides lifetime learning opportunities through the [Flying Longhorns](#) travel program, the annual [Alumni College](#), virtual lectures from rockstar faculty, [student programming](#), and [online university library access](#). The association is the keeper of The University of Texas at Austin traditions and works to create unforgettable moments for students on campus, while supporting their academic success.

The Texas Exes' home on campus is the Etter-Harbin Alumni Center, which stands on San Jacinto Boulevard across from Darrell K Royal-Texas Memorial Stadium. Facilities include a banquet hall, offices,

meeting rooms, outdoor pavilion, and underground parking. The building is named for Lila B. Etter and John P. Harbin. Etter, whose bequest to the university financed much of the original structure in 1965, was the daughter of the University's first president, Leslie Waggener. Harbin was a Distinguished Alumnus and past president of the Texas Exes. His gift provided site preservation, development, and landscaping.

The university depends on the time and talents of Texas Exes members to support and carry out many of its programs. Membership is a charitable contribution. For more information, click [here](#) or call 512-471-8839.

## Libraries and Other Academic Resources

### The University Libraries

The University Libraries, one of the largest academic libraries in North America, include the University of Texas Libraries, the Dolph Briscoe Center for American History, the Harry Ransom Center, and the Joseph D. Jamail Center for Legal Research: Tarlton Law Library. The libraries are open and information services are available to the University community and to visitors, including students and faculty members from other institutions.

## The University of Texas Libraries

The University Libraries [website](#) offers a range of services and resources. Each year this site is visited more than a billion times by information seekers around the world.

### Online Services

- Check the library [catalog](#) for a listing of on-site and electronic information resources.
- Libraries [hours](#) information. Most circulation desks close fifteen minutes before the library closes.
- [Renew an item or recall an item](#) loaned to another borrower.
- [Ask a Librarian](#): Use e-mail or instant messaging to obtain assistance from a librarian.

- [Request](#) books, photocopies of articles, and other material not owned by the University Libraries from another library in the United States or abroad.
- [Request](#) that the University Libraries purchase an item it does not currently own.
- [Ask for an item](#) in remote storage to be delivered to another library.
- [View jobs](#) available in the University Libraries.

## Online Resources

Campus-affiliated users may access millions of pages of specially licensed scholarly information, including the full text of articles and illustrations from thousands of journals and the [full text](#) of about eighty thousand books in electronic format. They may search hundreds of [indexes](#) and view the world's largest and most heavily used online [map collection](#).

Subject specialists are responsible for developing the extensive collections that make up the University Libraries. Users who have questions about resources or need research assistance are encouraged to consult one of the [subject specialists](#) listed.

## On-Site Services and Resources

The University of Texas Libraries includes several libraries on the Austin campus and the Marine Science Library in Port Aransas. Each unit offers a range of services and specialized resources.

**Library classes and tours.** The University Libraries offers a variety of [classes](#) on how to use the library catalog and how to access and evaluate information, as well as advanced classes covering databases and other electronic and on-site materials in specific subject areas. Virtual and on-site tours are also offered.

**Information and research help.** Staff members are available in all libraries to help users [find information](#).

**Computing facilities.** [Computing facilities](#) available to UT Austin students, faculty members, and staff members are located in all libraries. The Perry-Castañeda Library, the Flawn Academic Center, and the science libraries offer the largest number of available workstations.

UTNet Wireless Access is available to students, faculty members, and staff members throughout the Flawn Academic Center and the Chemistry, Classics, Fine Arts, Physics Mathematics Astronomy, and Law Libraries, and in selected areas of the Architecture and Planning, Geology, Life Science, and Perry-Castañeda Libraries and the Ransom Center.

**Copying and printing facilities.** Printing from computers, photocopiers, and microform readers requires a UTEID. [Library Copier Services](#) has more information.

**Individual and group study areas.** All libraries offer individual [study spaces](#). Many also offer group study rooms, designated collaborative study areas, or closed studies or carrels. Group study rooms in the Fine Arts and Perry-Castañeda Libraries and the Benson Latin American Collection may be reserved online.

## Libraries

**Perry-Castañeda Library.** This six-level open stack library contains more than 2.5 million volumes, computers for public use, a coffee shop, and enclosed studies as well as group study areas.

This main library of the University serves most subject areas, with emphasis on the humanities, the social sciences, business, education, nursing, social work, and European, East European, Asian, Middle Eastern, Hebrew, and Judaic studies. Special materials include United

States and United Nations official documents, current journals, and newspapers. Reference and information help is provided in the lobby area. Library users are also encouraged to make appointments with subject specialists in their areas to discuss information needs. A list of subject specialists, with contact information and office locations, is published [online](#). Service units in the library include Access Services, Courtesy Borrower Services, Library Copier Services, and Interlibrary Services. The Office of the Vice Provost and Director of the University Libraries and the University Libraries administrative staff are also housed in the [Perry-Castañeda Library](#).

**Nettie Lee Benson Latin American Collection.** The [Benson Latin American Collection](#) holds over one million books, periodicals, pamphlets, and newspapers; and over 7,000 linear feet of archives and manuscripts. The collection acquires research material from across Latin America, the Caribbean, and the United States, on Latin Americans and U.S. Latinas/os, with subject focuses including the humanities, social sciences, natural resources, natural sciences, history of medicine, law, human rights, civil rights, and technology. In 2011, the Nettie Lee Benson Latin American Collection entered into a partnership with the [Teresa Lozano Long Institute for Latin American Studies](#) (LLILAS), creating [LLILAS Benson Latin American Studies and Collections](#).

The Benson's Special Collections consist of archival and digital collections, and include manuscripts, publications, and other written works. Other formats include broadsides, newspapers, photographs, slides, musical scores, oversize materials such as posters, artwork, and architectural drawings and blueprints. Audiovisual materials are found throughout the collections, including VHS tapes, cassettes, vinyl records, DVDs, CDs, and others audiovisual formats. The collecting areas of focus for the Benson Special Collections are Latin American Archives, U.S. Latina/o Archives, Black Diaspora Archives, and Rare Books. Major resources include the Guatemalan National Police Historical Archive (AHPN) and the [Archive of the Indigenous Languages of Latin America](#) (AILLA). The Benson and UT Libraries are founding partners in Primeros Libros de las Américas, an international digital initiative providing access to the earliest printed works published in the Americas.

**Science libraries.** The science libraries on the main campus are the Mallet Chemistry Library, the Walter Geology Library, the Life Science Library, and the Kuehne Physics Mathematics Astronomy Library. The Marine Science Library is located at the Marine Science Institute in Port Aransas.

**Fine Arts Library.** The [Fine Arts Library](#), located in the Doty Fine Arts Building, contains collections that support learning and research in art, music, theatre, and dance. The collections include a variety of formats, including books, journals, musical scores, plays, CDs, and DVDs. UT Austin students, faculty and staff members, and courtesy borrowers may check out digital cameras, camcorders, and boom boxes. Cassette players may be checked out for use in the listening carrels.

**Architecture and Planning Library.** Learning and research in architecture, interior design, urban planning, landscape architecture, and related disciplines are supported by the [Architecture and Planning Library](#) and, within it, the extensive collection of architectural drawings and other records in the [Alexander Architectural Archive](#).

**Other units.** Other units of the University Libraries include the [Classics Library](#). The Collections Deposit Library is a limited-access facility that houses a number of specialized collections.

## Information for Borrowers

**Loan periods.** Undergraduates and courtesy borrowers may borrow most library materials for 28 days. All other holders of University ID cards may borrow most materials for one semester.

A borrower may place a recall request online for a book checked out to another borrower. When the recalled item is returned, the requestor is notified and the item is held for seven days.

**Borrower responsibilities.** Borrowers are responsible for maintaining correct records of their identification numbers and mailing addresses with the University and for obtaining corrected borrower cards in case of error or a change in data. Borrowers are responsible for the return of items checked out to them until they are returned. The University Libraries is not responsible for notifying borrowers that materials are overdue.

**Fines and fees for overdue materials.** Borrowers are fined for failing to return library materials by the date they are due. Fines vary depending on the loan period of the material; detailed information is published at [Charges for Overdue and Lost Material](#).

**Charges for lost or damaged materials.** Borrowers are charged for lost and damaged items. Charges include a rebinding or repair charge if a damaged item can be repaired; the cost of replacing a lost item or a damaged item that cannot be repaired, plus a rebinding fee if applicable; a processing fee when an item is reported lost or is presumed by the University Libraries to be lost; and a billing service fee. A detailed list of charges is published by the [University Libraries](#).

**Library cards for non-University borrowers.** Libraries are open to the public for use of materials. Adult Texas residents who are not members of the University community may borrow materials for home use by purchasing a courtesy borrower card at the Courtesy Borrower Services Desk at the Perry-Castañeda Library, entrance level. A photo ID and proof of Texas residence are required at the time of purchase. The fee may be waived for current members of the Texas Exes, for users who present valid TexShare cards from libraries participating in the TexShare Card Program, and for other users included in reciprocal borrowing agreements in which the University Libraries participates. More information on fees and waivers is published by the [University Libraries](#). Cards are valid for the period of enrollment, membership, or appointment, not to exceed one year.

## Blanton Museum of Art

Founded in 1963, the Blanton Museum of Art at The University of Texas at Austin is one of the foremost university art museums in the country and holds the largest public [collection](#) of art in Central Texas. The museum is recognized for its Latin American holdings, modern and contemporary American collection, Italian Renaissance and Baroque paintings, an encyclopedic collection of prints and drawings, and [Ellsworth Kelly's Austin](#).

The Blanton is a [vital resource](#) for faculty and students across all areas of the university for study and research. During the 2019-2020 academic year (before the museum closed for five months, beginning in mid-March 2020, because of the COVID-19 pandemic), the Blanton hosted 11,473 UT students and 208 faculty members for custom-designed, in-person gallery experiences. The Blanton has ongoing teaching partnerships with every school and college at the University ranging from the Dell Medical School to the Cockrell School of Engineering to the College of Fine Arts.

The Julia Matthews Wilkinson Center for Prints and Drawings offers students, scholars, and other visitors access to the Blanton's collection of works on paper, which comprises more than 80% of the museum's holdings. [The H-E-B Study Room](#), located within the Wilkinson Center for

Prints and Drawings, is one of the most active print study rooms in the country, welcoming nearly 2,500 visitors per year. The print study room provides a venue for close examination of works on paper, a valuable resource for scholars at the University and beyond.

The Blanton offers a range of fellowships to graduate students at The University of Texas at Austin to provide hands-on learning opportunities and other pre-professional experiences to students who are interested in the museum field. This is in addition to the museum's extensive [volunteer program](#), which is open to both undergraduate and graduate students from the University, as well as others from the community who have a special interest in volunteering at the museum.

## Computing Resources

### Information Technology Services (ITS)

**ITS Mission** - We support the university's mission of education, research, and public service by providing centralized IT services in a strategic, connected, and transformative way. ITS enables UT to adapt, compete, innovate, and thrive well into the future and focus on mission-enabling endeavors.

Information Technology Services ([ITS](#)) provides the core networking, telecommunications, systems, and application services infrastructure at the University. ITS is committed to providing a diverse set of secure, high-quality products and services that support and enhance the academic mission of the institution.

Access to and use of campus information technology resources is governed by University [policies](#) and state and federal law. All students, faculty members, staff members, and other users are responsible for knowing and abiding by these regulations on computer use.

Although ITS is the largest on-campus provider of information technology resources, individual schools, colleges, and departments also offer technology services for their students, faculty, staff, and guests. UT's IT services portal, [IT@UT](#), lists services provided by any campus unit, including links to departmental IT resources.

### ITS Services Available to All UT Students

**MyUT.** [MyUT](#) is a customized, responsive web portal into University resources students need, including information about registration, classes, tuition bills, financial aid, events, and other official University business. Information is personalized based on student classification and major and is accessed with their EID.

### Accounts and Access

**DUO.** The university has implemented a two-factor authentication system to provide an additional level of security when using sensitive online services. Currently, the university is using a tool called Duo. Duo provides a user-friendly and secure two-factor authentication solution. With two-factor authentication, the regular UT EID login process is enhanced with an additional authentication step.

The documentation for Two-Factor Authentication has moved [here](#).

**EID.** Each member of the University community is provided with an electronic identifier, or EID, that is used to access secure online campus services and information. A UT EID is required for all secure electronic transactions at the University, including registering for classes, claiming a University e-mail address, and accessing the University Library's online resources. Guest EIDs are available for job applicants, prospective students, and others and cannot be used for secure transactions.

Before acquiring an EID, users must read and sign the [Acceptable Use Policy](#). [Self-service tools](#) allow users to manage their UT EIDs online.

**ID Center.** The [ID Center](#), located on the first floor of the Flawn Academic Center, is responsible for creating proximity-enabled ID cards and upgrading users' electronic identifier (EID) to allow full access to online services. Students must present a driver's license, passport, or other form of government-issued identification to receive a University ID card. To upgrade an EID, students must be at least eighteen years of age or accompanied by a guardian.

**Acceptable Use Policy.** The University's Acceptable Use Policy ([AUP](#)) provides students, faculty, staff, and University affiliates with guidelines on appropriate and legal uses of computers and information technology at the University. The policy outlines each person's responsibility when accessing and using these resources; it includes the University's position on downloading copyrighted materials.

Violating the AUP can lead to serious consequences, including disciplinary action and criminal prosecution. All members of the University community are urged to become familiar with the [AUP](#).

## Email and Collaboration

E-mail is recognized as an official means of communication from the University to students. Policies are given in Use of E-mail for Official Correspondence to Students, [Appendix M](#) (p. 159).

**UTmail.** [UTmail](#) provides UT Austin students, alumni, faculty, and staff with a University affiliated e-mail address in the @utexas.edu domain. Those who opt in to the service can choose their email address to be used across their UTmail and Google Drive accounts. In addition, UTmail provides email for life—students can keep their email addresses after they leave the University.

**Office 365** is a suite of cloud-based services hosted by Microsoft that deliver numerous capabilities, including Email, Web Applications & Content Management, Storage, Voice/Video/Chat, Collaboration, Desktop Applications. For more information, please visit our [Office 365 page](#).

**Mailing lists.** [Mailing lists](#) are forums for teaching, collaboration, discussion, entertainment, announcements, and more. Messages are sent directly to subscribers via email.

**UTBox.** [UTBox](#) cloud storage is a campus-wide file sharing service for business and academic purposes. It offers unlimited storage for students, faculty, and staff, a secure way for sharing files across campus, and easy syncing between a desktop, laptop, smartphone, and tablet device. Group accounts are also available for research groups and teams with unlimited storage quotas.

**University Blog Service.** The [University Blog Service](#), which uses the WordPress platform, is available for use by all students, faculty, and staff. Blogs can be created by, and are available for, individuals, groups, projects, or departments.

## Learning and Instructional Tools

**Canvas.** [Canvas](#), a cloud-hosted learning management system (LMS), is the University's online instructional hub. It enables students to connect and communicate with their instructors and classmates online, as well as access class materials, engage in discussion threads, receive assignments, and learn in a media rich environment. Canvas also integrates with [Zoom](#) to support hybrid and fully remote learning activities.

**Zoom.** Zoom is a centrally supported video conferencing solution available to university faculty, staff and students that enables you to meet, teach, and learn from anywhere. It is integrated with Canvas,

and you can host and join meetings from your mobile device, desktop client or the web. Other [video conferencing and collaboration tools](#) are available on campus.

**Qualtrics Survey Tool.** [Qualtrics](#), a generalized survey service, permits the creation of survey instruments, distribution of the surveys, data storage, and analysis. Qualtrics is user-friendly and able to handle complex designs. Students using Qualtrics are limited to 1000 responses per survey.

**UTprint.** [UTprint](#) is a convenient way for students to print documents. Students simply log in with their UT EID and print to one of the University printers available in select labs and buildings across campus. Items can be printed in black and white or color and are purchased using Bevo Pay.

## Wi-Fi, Internet, and Telecommunications

**Public Internet Access.** ITS provides the campus community with [wireless access](#) to the University's network, *utexas*. Wireless connectivity is available throughout campus.

Current students, faculty, staff, and official visitors can access *utexas* by logging in using their UT EID and password. Visitors can gain [wireless access](#) using the University's *utquest* network. *Utquest* should not be used by students, faculty or staff. Official University affiliates should use the *utexas* network. For more information on the campus network, visit the university wireless networks [page](#).

**Cellular Service on Campus.** Cellular coverage is essential for the daily needs of the campus. To make it easier and more affordable to stay connected, a number of [cellular discounts](#) have been negotiated exclusively for members of the University community.

## Support Services

**Service Desk.** The [Service Desk](#) provides the University community with a centralized point of contact for help with a variety of topics, including questions concerning information technology, business processes, services and applications. Whether the problem is related to email, EID, Wi-Fi access, or some other inquiry, the Service Desk provides support and troubleshooting by telephone, email, or on a walk-in basis at the FAC.

**Campus Computer Store.** Conveniently located in the Flawn Academic Center (FAC), the [Campus Computer Store](#) is the official technology store of The University of Texas at Austin. The store is an Apple Authorized Campus Store and a Dell Authorized Reseller. We provide service for Apple, Dell and most computer brands. The store carries computer hardware for all major brands including Microsoft Surface, Apple, Dell, HP, Lenovo, MSI and many others! We offer students, alumni, retirees, faculty, and staff exclusive discounts on computers and other select products. The Campus Computer Store is conveniently located on campus in the Flawn Academic Center.

**Flawn Academic Center.** The Flawn Academic Center ([FAC](#)), which has convenient hours, offers flexible study spaces, relaxed collaboration, printing, and computer access. Students and others in the campus community are invited to conduct research, write papers, and use the internet.

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## Texas Advanced Computing Center

The Texas Advanced Computing Center ([TACC](#)) is one of the nation's leading supercomputing centers. TACC enables discoveries that advance science and society through the application of advanced computing technologies, including high-performance computing, scientific visualization, and massive data storage/archival systems and software. TACC's technologies enhance the capabilities of University faculty members, staff members, and students, and TACC's computational

experts help researchers and students use these technologies most effectively. Through regional and national partnerships, including the University of Texas Research Cyberinfrastructure (UTRC) initiative and the National Science Foundation's Extreme Science and Engineering Discovery Environment (XSEDE), TACC resources and services are made available to the national open science research community, but UT Austin researchers have unique access to TACC systems and staff. TACC staff also conduct research and development to produce new advanced computing technologies and techniques that increase the performance, usability, and reliability of advanced computing systems.

## Dolph Briscoe Center for American History

The Briscoe Center for American History is one of the nation's leading research centers for historical study. The center's archives, libraries, museums, and historic buildings are part of the the University of Texas at Austin's commitment to collecting, preserving, and making available the evidence of the past. The Briscoe Center promotes the university's teaching and research mission through classes and seminars, academic fellowships, faculty collaborations, and student internships. The center fosters public exploration of history through research services, exhibits, books, public programs, and digital humanities projects inspired by archival holdings.

The Office of the Director of the Briscoe Center is located in the Arno Nowotny Building, the oldest building on the Austin campus. The Briscoe Center has four additional divisions, each serving a unique purpose.

- The [Research and Collections Division](#) is located in Sid Richardson Hall Unit 2, on the main campus of the University. It is the Briscoe Center's main research facility and the repository for most of the Briscoe Center's book, manuscript, map, newspaper, photographic, sound, and ephemera collections. After a comprehensive renovation of its public spaces on the university campus in 2017, the Sid Richardson Hall location includes a first-class reading room for research; three exhibit galleries; and two classrooms for a variety of public and academic programs such as lectures, panel discussions, symposia, book talks, and film screenings. The Military History Institute, also located in Sid Richardson Hall, is an educational outreach and archival program.
- The [Sam Rayburn Museum](#) documents the life and career of former Texas congressman and Speaker of the United States House of Representatives Sam Rayburn (1882–1961). It is located in Rayburn's hometown of Bonham in northeast Texas.
- The [Briscoe-Garner Museum](#) in Uvalde, Texas, is dedicated to the remarkable lives of John Nance "Cactus Jack" Garner and Dolph Briscoe, both Uvalde natives and historically important political figures from Texas.
- [Winedale](#) is a complex of historical structures and modern facilities situated on 225 acres near Round Top, Texas. Winedale's mission is to foster an understanding of Texas history, culture, and native plants and landscapes through research, teaching, and public service.

The Briscoe Center's Texas history archives have no peer in size, quality, and diversity. Within its collections, the Briscoe Center has primary sources—documents, records, newspapers, photographs, maps, and oral histories—of great breadth and depth on almost all subjects related to the story of Texas. The Briscoe Center's Texana library of rare and scarce books on the history of Texas is the largest and most valuable collection of its kind. The Briscoe Center is also one of the nation's leading research centers for Southern history. Its Southern history holdings include the Littlefield Southern History Collection, the Natchez Trace Collection, the

Parsons Collection on the Louisiana Purchase, and the Pugh Plantation (Louisiana) Archive.

The Briscoe Center has the largest congressional and political history collection outside Washington, D.C., with a special focus on Texas congressional and gubernatorial papers.

The Briscoe Center's photography holdings include the largest collection of photographs of the United States presidency outside Washington, D.C., as well as the largest existing collection of photographs of Martin Luther King, Jr. The Briscoe Center owns more than eight million photographic images from the late 1840s to the present, including the Alamo daguerreotype, the oldest datable photograph taken in Texas. The collections place special emphasis on the archives of leading photojournalists.

The Briscoe Center is also one of the leading institutions in the United States for the study of news media history. Collections include the papers of media professionals (including Walter Cronkite, Dominick Dunne, Robert Trout, Morley Safer, Andy Rooney, and Harry Reasoner), the research archives of media industry leaders, and one of the largest newspaper collections in the United States, with original editions of some of the earliest known newspapers published in Texas. Another major research strength is the history of social justice movements in the United States, including the civil rights movement. Highlights include the papers of John Henry Faulk, James Farmer, and C. Wright Mills, and the historical archives of the *Texas Observer* and the Field Foundation.

The Briscoe Center's collections document more than three hundred years of United States military history, including America's involvement in foreign wars from Mexico to Iraq.

The American Energy History Collection provides a comprehensive view of the modern age and the influence of energy in business, society, politics, and culture. It includes the extensive ExxonMobil archives, the largest publicly available collection documenting a single energy company.

The Briscoe Center also has an extensive material culture collection made up of thousands of museum objects at the Briscoe Center's four sites. The collection includes rare historical artifacts, clothing, textiles, furniture, and other decorative arts dating from the Anglo-American settlement of Texas in the early nineteenth century to the present.

The Briscoe Center presents a wide variety of permanent and temporary exhibits drawn from its collections. Exhibit topics have encompassed Texas and Southern history, news media history, civil rights, women's history, decorative arts, the entertainment industry, and Texas music. The Briscoe Center offers exhibits of photographs on tour to museums across the country.

The Briscoe Center's [website](#) provides access to valuable resources to researchers worldwide. The site includes a digital media repository of more than twenty thousand photographs, maps, documents, and videos; finding aids to hundreds of major collections; and online exhibits.

## Harry Ransom Center

The Harry Ransom Center is an internationally renowned humanities research library and museum at The University of Texas at Austin. Its extensive collections provide unique insight into the creative process of writers and artists, deepening our understanding and appreciation of literature, photography, film, art, and the performing arts. The Center's collections include nearly one million books, more than 42 million manuscripts, five million photographs, and 100,000 works of art. Visitors engage with the Center's collections through research and study, exhibitions, publications, and a rich variety of program offerings

including readings, talks, symposia, and film screenings. For more information about the Center and its collections, please consult the Ransom Center's [website](#).

The Ransom Center invites use by University faculty members, staff members, students, and members of the public engaged in research across a range of scholarly disciplines. University faculty are encouraged to work with the Center to design collaborative teaching experiences in the galleries and seminar rooms. Each year, the Center awards more than 50 fellowships for projects that require substantial on-site use of its collections including fellowships for graduate students writing their dissertations. In addition, undergraduate internships and volunteer opportunities for students are available.

Visitors may access collection materials in the second-floor Reading and Viewing Rooms. The first-floor galleries feature rotating exhibitions, as well the Gutenberg Bible, one of only 20 complete copies in the world that survive intact, and the Niépce Heliograph, one of the oldest surviving photographs taken in a camera, both of which are on permanent display in the lobby.

Hours of operation for the Reading and Viewing Rooms and the exhibition galleries are available on the Ransom Center's [website](#) or by calling (512) 471-8944.

## Hogg Foundation for Mental Health

The Hogg Foundation for Mental Health envisions a future in which the people of Texas thrive in communities that support mental health and well-being. Health is not solely an individual responsibility, but is also a product of community conditions. Working collaboratively, we can change the patterns of mental illness across Texas, especially for marginalized populations.

In recognition of the systemic and structural nature of barriers to mental health, the foundation addresses challenges through a variety of approaches, including grantmaking, convening, research and public policy. Additionally, the foundation offers graduate-level [scholarships and fellowships](#) to encourage and support research and study in the field of mental health.

The foundation was established in 1940 by the children of Governor James Hogg. The original \$2.5 million endowment came from the estate of Will C. Hogg, the eldest of the Hogg children. Upon his death, his sister Ima and his brother Mike established the foundation in his memory at The University of Texas at Austin. Ima, who is known fondly as the mother of the foundation, imagined a future in which people with mental health challenges would be treated with respect and dignity, and mental health would be seen as indivisible from all other aspects of a flourishing and healthy life.

The foundation is part of the Division of Diversity and Community Engagement at The University of Texas at Austin and is located three miles west of the main campus at 3001 Lake Austin Boulevard.

Learn more at [hogg.utexas.edu](http://hogg.utexas.edu). Check the website frequently for updates and changes to programs and activities.

## KUT and KUTX Public Radio

KUT 90.5, established in 1958, and KUTX 98.9, established in 2013, are licensed by the Federal Communications Commission to The University of Texas at Austin and operate as a department within the Moody College of Communication. Together, the stations strive to broaden the public's perspective on the world through in-depth news coverage

delivered through a local lens, and by exploring the region's rich music and cultural scene. Each month, more than 750,000 Central Texans listen to [KUT](#) and [KUTX](#).

With a full-time, dedicated news staff, KUT News 90.5, Austin's NPR station, uses the highest journalistic standards to shed light on Central Texas' civic challenges and opportunities. A founding member of NPR, KUT 90.5 established a news department in 2002. Since then, KUT News has won more than 250 state, national, and international awards for journalistic excellence. In 2015, KUT launched "Texas Standard," a one-hour daily news program airing on 29 public radio stations across the state with coverage of politics, lifestyle, the environment, technology, innovation, and business from a Texas perspective.

KUTX 98.9, The Austin Music Experience, is the destination for new music from the artists driving the sound of Austin today – from new and local artists, to music that's stood the test of time. Programming includes more than 300 live, one-of-a-kind performances in Studio 1A each year; the Austin Music Minute; the KUTX Song of the Day and Artist of the Month, as well as KUTX Live events that connect music fans to local and national talent.

As a media organization, KUT and KUTX has a responsibility to reflect the diverse culture, issues, and lives of residents of Central Texas and the state. We believe [KUT](#), as a member of a free and independent press, has a critical role in the battle against racism, spotlighting inequity and lifting the voices of overlooked and underserved communities. We also believe [KUTX](#), as a key voice in the Austin and Texas music scene, can also combat racism by broadening cultural understanding, exposing listeners to new cultures and communities through music, and amplifying the voices of Black, Latino and other artists of color.

KUT and KUTX offer student internship and employment opportunities each year. For more information on internship opportunities including descriptions and how to apply, please visit the [KUT website](#).

## Marine Science Institute

The [Marine Science Institute](#) (UTMSI), located in Port Aransas, Texas, is home to the Department of Marine Science in the College of Natural Sciences. The institute is dedicated to advancing and sharing knowledge of estuaries, coastal, and blue-water oceans through research, education, and outreach programs. Marine science faculty, students, and professional staff conduct basic and applied research with global reach, from the Gulf of Mexico waters to the polar oceans. The department is well known for its masters and doctoral degree programs in marine science. A Bachelor of Science in Biology: Option III: Marine Science undergraduate degree is available through the College of Natural Sciences at The University of Texas at Austin.

Founded in 1941, the 62-acre UTMSI main campus, and 10-acre Port Street campus are strategically located on the north shore of Mustang Island, which offers unparalleled access to open Gulf waters and the pristine bays and estuaries of Texas. These natural habitats include: fresh to hypersaline waters; sea grass and mud flats; oyster reef; sand beaches; dune areas; the open Gulf; and estuarine nurseries. Core research areas include marine ecosystem structure and function, fisheries biology, organismal biology, fish physiology, and marine biogeochemistry.

The Marine Science Institute facilities include approximately 200,000 square feet of research and teaching laboratories, digital classrooms, study areas, library, visitor center, auditorium, meeting rooms, and offices. A dormitory, apartment housing, cafeteria, and fitness facilities support resident student and visiting scholar needs. The institute's boat

basin harbors watercraft ranging from shallow water skiffs to the *R/V Katy*, a 57-foot trawler.

The Marine Science Institute is home to several unique programs. It manages two federally sponsored programs; the [Mission-Aransas National Estuarine Research Reserve](#) and the [Beaufort Lagoon Ecosystems Long Term Ecological Research Program \(BLE LTER\)](#). The Mission-Aransas Reserve, at 186,189 acres, is the third largest estuarine reserve in the nation and focuses on research, education, and stewardship. The Mission-Aransas Reserve maintains outreach facilities and programs of the Marine Science Education Center in Port Aransas, and the Bay Education Center in Rockport, Texas. The Reserve also operates the [Amos Rehabilitation Keep \(ARK\)](#) which rescues and rehabilitates hundreds of sea turtles and marine birds annually. The Beaufort Sea (LTER) is a research program along the northern Alaskan Arctic coastline in the Beaufort Sea is focused on studying the relationship of seasons and Arctic ecosystems. The Institute also operates the [Fisheries and Maricultural Laboratory](#) on its Port Street Campus that conducts research in captive spawning, larval development, nutrition, physiology of recreationally and commercially important fishes.

Faculty, graduate, undergraduate students, and professional research staff at UTMSI have achieved landmark discoveries in marine science spanning decades of local and global interests. The record of excellence in research, teaching, and mentorship provide an outstanding opportunity for new students interested in marine science career paths.

## The University of Texas McDonald Observatory at Fort Davis

Understanding the nature of dark energy—a force that is causing the universe to expand faster as it ages—is one of the great challenges in modern science. McDonald Observatory is meeting that challenge with the Hobby-Eberly Telescope Dark Energy Experiment (HETDEX), an innovative experiment that will examine more than one million galaxies that are billions of light-years from Earth. These observations will reveal new details about how the expansion rate has changed over the eons, helping narrow the list of possible explanations for dark energy.

This experiment and many others are adding to McDonald Observatory's legacy of innovation and discovery. Dedicated in 1939 in the Davis Mountains of West Texas, the Observatory is a leader in astronomical research, education, and outreach. It hosts a battery of telescopes, including one of the world's largest. Its astronomers study everything from our own solar system to the most distant galaxies, and they develop new instruments for observing the universe.

McDonald Observatory is extending its reach far beyond Texas as a partner in the Giant Magellan Telescope, a mammoth instrument under construction in Chile. Its primary mirror, which gathers and focuses starlight, will consist of seven segments. Combined, they will cover almost as much area as a basketball court, and will see deeper into space than any telescope yet built. With this telescope, astronomers expect to snap pictures of planets in other star systems and look at the dawn of the universe, allowing them to see the formation of the first galaxies.

McDonald Observatory has been operating some of the world's largest telescopes since its beginning. Its first telescope, with a mirror spanning 82 inches (2.1 meters), was the second-largest in the world. Its second major telescope, completed three decades later, was the world's third-largest at the time. And today, McDonald Observatory hosts the Hobby-Eberly Telescope (HET), with a segmented primary mirror that spans 33 feet (10 meters).

HET has been upgraded to host HETDEX and many other research projects. Engineers have replaced the top half of the telescope, installing new optics that provide a wider view of the sky. And they are finalizing powerful new instruments, including a suite of 156 spectrographs known collectively as VIRUS (Visible Integral-Field Replicable Unit Spectrographs). These instruments allow astronomers to measure an object's temperature, chemical composition, and motion through space. VIRUS will be able to look at as many as 34,000 galaxies or other objects at a time, which is almost like looking at the sky with 34,000 individual telescopes.

In addition to its research role, McDonald Observatory is a busy training ground for astronomy students, both graduate and undergraduate. Students conduct their own observations with some of the telescopes, providing valuable experience for their future careers as scientists and teachers. They also have opportunities to help develop new instruments, which extend the capabilities of the telescopes.

McDonald Observatory is also a leader in astronomy outreach. It produces a daily radio program, *StarDate*, that airs on more than 250 stations and reaches millions of listeners every week, as well as the bimonthly *StarDate* magazine.

The Frank N. Bash Visitors Center at the Observatory hosts tens of thousands of visitors every year. It offers interactive exhibits and observatory tours, and conducts star parties every Tuesday, Friday, and Saturday night. The Visitors Center also hosts regular workshops for science teachers and special events for students. These programs have impacted thousands of teachers and hundreds of thousands of students.

For more information about McDonald Observatory outreach, education, and research, visit the [website](#).

## Other Libraries in Austin

The [Lyndon Baines Johnson Library and Museum](#), located on the eastern edge of the campus, is operated by the National Archives and Records Administration. Though not part of the University library system, this library is a rich resource for scholars studying the twentieth century. Faculty members and students also have access to other public and private libraries in the Austin area, including several that focus on special areas of interest.

## Tarlton Law Library/The Joseph D. Jamail Center for Legal Research

The Tarlton Law Library in the Jamail Center for Legal Research supports the research and curricular needs of the students and faculty of the School of Law, as well as the research needs of the University community, members of the bar, and the public. The highly qualified library staff provides reference services, offers individual and group instruction, and maintains and organizes the collection for efficient use. Lawyer-librarians teach advanced legal research in a range of topics, including Texas law, corporate and securities law, foreign and international law, and general research methods.

The Tarlton Law Library is one of the largest academic law libraries in the country, with a physical collection of more than a million volumes and extensive electronic resources. In addition to a comprehensive collection of United States primary and secondary legal materials in print and digital formats, Tarlton has a broad interdisciplinary collection from the social sciences and humanities. Special collections at Tarlton include significant foreign and international law resources; the papers of former United States Supreme Court Justice Tom Clark; feature films and fiction related to law and popular culture; and the Gavel Archive,

a collection of feature films, TV shows, and fiction related to law and popular culture, all candidates for and winners of the American Bar Association's prestigious Silver Gavel Award. Tarlton is a depository for United States, European Union, and Canadian government documents. Its extensive collection of rare and antiquarian law books includes noted collections of early legal dictionaries, Texas law, and the works of John Selden.

Tarlton offers law student access to Bloomberg Law, Lexis+, and Westlaw Edge, the major online legal research services. Computers, a building-wide wireless network, printers, and scanners are available for law student use. The facility has group study rooms; a student collaborative study space; and tables, carrels, and comfortable seating throughout. The Tarlton Law Library [website](#) offers online resources and finding aids, including digital collections highlighting Texas legal history and law school traditions.

Almost 1,000 paintings, prints, documents, textiles, and pieces of furniture from the Hyder Collection enhance the ambiance of the library and create an intellectually rich environment for research and study.

## The Teresa Lozano Long Institute of Latin American Studies

The Teresa Lozano Long Institute of Latin American Studies (LLILAS) is one of the largest and oldest Latin American studies programs in the United States. Founded in 1940, LLILAS is a vibrant center for the interdisciplinary study of Latin America and for the dissemination of this research and creative production. LLILAS faculty—some 170 strong—teach courses on a broad array of topics and train students for BA, MA, and PhD degrees in Latin American studies. In addition, faculty teach courses in their respective disciplines in more than thirty academic departments across the University, melding a Latin American focus with their particular areas of expertise. Graduate dual-degree programs are available to combine Latin American studies with business administration, communication studies, community and regional planning, global policy studies, information studies, journalism, law, public affairs, radio-television-film, and social work. Latin American research occupies a significant place in several other colleges, particularly in the areas of fine arts, information studies, education, law, and architecture.

LLILAS hosts an average of three Latin American visiting professors annually through the Edward Larocque Tinker Chair in Latin American Studies, endowed by the Tinker Foundation, for distinguished Latin American scholars; and the UT-Fulbright Visiting Professorship, under an agreement with the Fulbright Commission of Brazil.

In September 2011, LLILAS joined forces with the Nettie Lee Benson Latin American Collection, the largest university research collection on Latin America in the United States, to become LLILAS Benson Latin American Studies and Collections. Operating under a single leadership team, LLILAS Benson seeks to generate knowledge and understanding of Latin America and US Latina/o communities through teaching, research, digital archives, outreach, and scholarly exchange. Throughout the year, LLILAS Benson sponsors symposia and lectures by visiting and resident specialists, and engages the public through public events, exhibits, and outreach to K–16 educators and students to foster greater knowledge of Latin America around the state and the nation.

LLILAS Benson is also a frequent collaborator with a number of partner institutions, including The University of Texas Libraries, the Bernard and Audre Rapoport Center for Human Rights and Justice, the Center for Mexican American and Latina/o Studies, the Department of African and African Diaspora Studies, the Center for Women's and Gender Studies, and the Department of Spanish and Portuguese. In addition, LLILAS

Benson has formal relationships with many institutions throughout Latin America, fostering the exchange of students, faculty, and research.

LLILAS runs two area centers, the Mexico Center and the Brazil Center. The Mexico Center was established in 1980 to coordinate the advancement of Mexican studies at the University. Its initiatives bring together students, faculty, visiting researchers, and the communities of Austin, Texas, and Mexico to foster a fuller understanding of the region. Visiting researchers come to campus for scholarly collaboration with peers through the Matías Romero Visiting Scholars Program. The Mexico Center sponsors the annual Austin Lecture on Contemporary Mexico, which invites a prominent Mexican intellectual to campus. The Brazil Center, founded in 1995, supports Brazilian studies across academic disciplines at the University in order to promote collaborative research and exchange between Texas and Brazil. Approximately one-quarter of LLILAS-affiliated faculty dedicate all or part of their research and/or instruction to Brazil-related content in diverse disciplines. LLILAS also houses the Argentine Studies Program to facilitate scholarly exchange between Argentina and the University. The institute's Center for Indigenous Languages of Latin America (CILLA) and its Indigenous Languages Initiative promote research and training programs about Indigenous languages, as well as teaching by native-speakers of Indigenous languages that form an important part of the society and culture of Latin America. LLILAS Benson is the home of AILLA, the [Archive of the Indigenous Languages of Latin America](#), a digital archive of recordings and texts in a wide range of genres that includes a wealth of language documentation materials. LLILAS Benson's online magazine, *Portal*, publishes the work of faculty, students, staff, and invited authors on a wide variety of topics relating to Latin America.

LLILAS Benson maintains one of the largest collections of digital assets designed to support Latin American studies in the world. The [LLILAS Benson Digital Collections and Content LibGuide](#) provides an overview of digital content managed, hosted, and/or curated by LLILAS Benson, as well as other tools and platforms that support discovery and access to digital content. The guide includes materials digitized from LLILAS Benson's collections and from collaborative partnerships with other institutions and researchers. Resources highlight the heritage of Latin American, U.S. Latinx, African Diasporic, and Indigenous American communities. Special focuses include human rights, colonial documents, visual content, Indigenous languages, and popular culture materials.

LLILAS Benson is located in Sid Richardson Hall unit 1, on the eastern edge of The University of Texas at Austin campus. Additional information is available through the [LLILAS website](#) and the [Benson website](#).

## Texas Memorial Museum

Texas Memorial Museum is located on the main University campus at 2400 Trinity Street. The museum exhibits extraordinary fossil specimens from across the state, including: the Texas Pterosaur, the Onion Creek Mosasaur, the Shoal Creek Plesiosaur, and remains of Ice Age mammals. The museum building was constructed with state and federal funds, contributions, and proceeds from the sale of Texas Centennial coins sponsored by the American Legion. It was opened to the public January 15, 1939. In 1959, by legislative enactment, it became part of The University of Texas at Austin.

The museum is open from 9:00 am to 1:00 pm and 2:00 pm to 5:00 pm Tuesday through Saturday; closed Sunday, Monday, and major holidays. General admission is \$7 for adults/seniors, \$5 for children 12 and under, \$4 for college students with valid ID, and free for The University of Texas at Austin students, staff, and faculty with valid UT ID. Public education programs and special events are held throughout the year.

The museum's Hall of Geology and Paleontology features displays of meteorites, rocks, and fossil plants and animals, including dinosaurs. The Great Hall showcases some of the University's most prized and unusual specimens, including gems and minerals from the E. M. Barron Collection. The Hall of Texas Wildlife highlights the contemporary native fauna of Texas, including many of the state's reptiles, birds, and mammals. Exhibitions with a focus on the museum's history and the natural sciences are featured in the Hall of Biodiversity.

## University of Texas Press

The University of Texas Press publishes approximately 85 new books and 13 journals each year in both print and digital formats. Although books have been published under the University of Texas imprint since 1922, the Press was formally established in 1950. The imprint is guided by a 10-member Faculty Advisory Committee appointed by the president and the Faculty Council.

In the years since its founding, UT Press has become a publisher of international scope, issuing more than 3,500 works in a wide range of fields. The major areas of concentration are American studies, architecture, classics and the ancient world, film and media studies, food studies, history, Jewish studies, Latin American and Latinx studies, Middle Eastern studies, music, and photography; as part of its mission to serve the people of Texas, the Press also produces books on the history, culture, arts, and environment of the state.

UT Press regularly collaborates with the Dolph Briscoe Center for American History, the Center for Mexican American Studies, the Center for Middle Eastern Studies, the Institute of Classical Archaeology, the Schusterman Center for Jewish Studies, the Stark Center for Physical Culture and Sports, and the Teresa Lozano Long Institute for Latin American Studies, as well as the Blanton Museum of Art and the Harry Ransom Center.

The Press also offers a fellowship program designed to give one year of experience in book publishing to the most qualified applicants. The objective of the program is to help prepare the fellow for a career in book publishing by providing intensive training in one department with exposure to and instruction in the operations of the other departments.

The Press offices are located at the Lake Austin Centre, 3001 Lake Austin Boulevard, and its warehouse is located on the Pickle Research Campus.

For more information, please see the UT Press [website](#).

## Appendices

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## Appendix A: Emergency Notification Policy

### A. Policy Statement

As safety and emergency notification practices are under greater scrutiny at institutions of higher education, it is the position of The University of Texas at Austin that at least one emergency contact person must be listed for each student enrolled at the University. A student's cell phone number is also part of the emergency notification protocol in case the University should need to contact the student via text message about critical incidents on campus. Information gathered remains confidential to the extent allowed by law.

### B. Scope

This policy applies to all admitted and enrolled students of the University. This policy provides for two distinctly different types of emergency notification. First, it details all the ways the University provides notification about emergencies to students, faculty members, and staff members. Second, it indicates the way the University will follow to notify a student's designated emergency contact in the event of personal distress or missing person status.

### C. University Communication of Emergency

Emergencies may range from inclement weather to building evacuations to campus closures, and the University has a variety of tools to communicate with the public in the event of these and other possible emergencies. Depending on the type of emergency, some or all of the following tools may be used to communicate with faculty members, staff members, and students:

#### 1. Siren System

This system is tested at about noon on the first Wednesday of every month. It delivers a siren warning and public address in the event of certain outdoor emergencies. More information about the [siren system](#) is available.

#### 2. Emergency Website

The emergency [website](#) is updated with information during actual emergencies or campus closures.

#### 3. University Emergency Information Line, (512) 232-9999

Students and faculty and staff members may call this main number for information about campus closures.

#### 4. Campus Television Emergency Announcement System

Emergency announcements will override residence hall and campus cable television, instructing the viewer where to go for additional information.

#### 5. Text Messaging Service

The University contracts with a third-party vendor that provides the technological ability to send text messages to members of the campus community. Only text messages about emergencies and messages used periodically to test the system are sent. Any data provided to the vendor by the University is protected by contractual arrangements.

#### 6. Pager System

Campus first responders, resident advisors, and some building managers are part of the Austin Warning and Communication System paging system. Pagers send text messages about

emergencies on campus and alert city responders like the Austin Police Department, the Austin Fire Department, Emergency Medical Services, and the Office of Emergency Management to campus crisis situations.

#### 7. Fire Panel Systems

Residence halls are equipped with fire panel systems that have a public address capability. Resident advisors are trained to use these systems in emergencies in order to make announcements to the entire building regarding evacuation, shelter in place, or other responses.

#### 8. University Group E-mail

During emergencies, UT Safety Alert sends an “urgent” group e-mail to every student and faculty and staff member. The message directs individuals to the emergency Web site for additional information and instructions.

#### 9. Voice Mail to Office Telephones

This system leaves a voice message on every faculty and staff member’s office phone on campus.

#### 10. Local News Media

The Office of Public Affairs sends press releases and makes calls to contacts on a local media list. Because of the transient nature of its population, the University depends a great deal on broadcast media to notify students, faculty members, and staff members of emergencies before or during their commutes.

#### 11. Public Safety Patrol Car Announcements

University of Texas Police Department patrol cars are equipped with public address systems that officers can use to provide instructions to pedestrians during emergencies.

#### 12. Telephone Tree

The president’s office has a telephone tree of department contacts that is activated during an emergency

#### D. Emergency Contact Information

Using the online [update form](#) in UT Direct, every student must provide the University with the name and contact information of at least one individual who could be contacted in the event of an individual emergency or to report the student missing. Students under the age of eighteen (unless emancipated) must provide contact information for at least one custodial parent. Students over the age of eighteen may designate anyone of their choosing to be the emergency contact. If a student living in University housing is determined to have been missing for more than twenty-four hours, University Housing and Dining will notify law enforcement (The University of Texas Police Department) and the Student Emergency Services unit in the Office of the Dean of Students to initiate missing person procedures. Student Emergency Services will notify the designated emergency contact for a student identified as a missing person within twenty-four hours of receiving the report.

#### E. Updating Emergency Contact Information

Students are required to update their primary cell phone and emergency contact information annually in order to keep the information current. Students who fail to update their emergency contact information have bars placed on their records that keep them from registering for classes. The bar is removed when the student submits the required emergency contact information.

#### F. Privacy and Confidentiality

Official use of emergency contact information is subject to the same privacy and record retention requirements as other official University information.

#### G. Authoritative Source

The authoritative source of this policy and responsibility for its implementation rests with the vice president for student affairs. The

University emergency protocols are managed by the associate vice president for University operations.

#### H. For Assistance

Questions about data security should be directed to the registrar at (512) 475-7575. Questions about acceptable use standards should be directed to the Office of the Dean of Students at (512) 471-5017.

## Appendix B: Official Extracurricular Student Activities Athletic Activities

The University is a member of the National Collegiate Athletic Association and the Big Twelve Conference and, in matters involving intercollegiate athletics, is bound by the provisions contained in the constitutions, bylaws, and rules of these organizations.

**Intercollegiate athletics for men.** The University has men’s intercollegiate athletic teams in baseball, basketball, cross country, football, golf, swimming and diving, tennis, and indoor and outdoor track and field. These sports are administered by the Department of Intercollegiate Athletics for Men, which reports to the president.

**Intercollegiate athletics for women.** The University has women’s intercollegiate athletic teams in basketball, cross country, golf, rowing, soccer, softball, swimming and diving, tennis, indoor and outdoor track and field, and volleyball. These sports are administered by the Department of Intercollegiate Athletics for Women, which reports to the president.

**The Intercollegiate Athletics Councils.** The Intercollegiate Athletics Council for Men and the Intercollegiate Athletics Council for Women provide advice on relevant issues to the respective departments and the president of the University. Each council is composed of

- a. two students, appointed by the president to one-year terms that begin at the start of the fall semester; one student serves a one-year term as student member–elect, and one student serves a one-year term as student member; the student member–elect shall in all cases succeed the student member by automatic appointment of the president, unless the council advises the president that the student member–elect has failed to attend at least half of the council meetings;
- b. one former student appointed by the Texas Exes to a one-year term that begins at the start of the fall semester;
- c. two persons appointed by the Board of Regents to four-year staggered terms, with appointments beginning at the start of the fall semester in the appropriate even-numbered year;
- d. one voting member of the General Faculty who does not hold a senior administrative position, appointed by and serving at the pleasure of the president as a member and chair of the council; and
- e. four members of the General Faculty appointed by the president to four-year staggered terms, with one such faculty member appointed each year and with the term beginning at the start of the appropriate fall semester.

Each council member serves until their successor is appointed, and each member may be reappointed to one or more additional terms.

**EADA reports.** The Equity in Athletics Disclosure Act (EADA), an amendment to the 1994 Improving America’s Schools Act, requires certain coeducational institutions of higher education to prepare annually and make available a [report](#) on participation rates, financial

support, and other information on men's and women's intercollegiate athletic programs.

## Sport Clubs

A variety of sports and recreation programs are administered by the Department of Recreational Sports (p. 67) through the Sport Club Program. Where applicable, the regulations for sport clubs are consistent with the requirements established by appropriate national sports organizations. In each sport club, the University reserves the right to adopt additional regulations.

## Nonathletic Activities

Nonathletic activities include extracurricular student events, contests, and programs, and elective, honorary, and appointive positions under the jurisdiction and supervision of a University agency. Eligibility rules for participation in each official nonathletic student activity shall be determined, adopted, and administered by the agency having jurisdiction over and responsibility for the activity. Participation in any of the above named nonathletic activities means

- a. managing or taking part in an intercollegiate or other public contest, program, or performance under the jurisdiction of an official nonathletic agency;
- b. holding, by official election or official appointment, any office, title, or honorary or representative position recognized by the constitution or governing regulations of an official nonathletic agency; and
- c. holding a special all-University honorary or representative position designated as such by the dean of students.

## Appendix C: Institutional Rules on Student Services and Activities

There are in the *Institutional Rules on Student Services and Activities* (known as the *Institutional Rules*) a number of references to portions of the Rules and Regulations of the Board of Regents of The University of Texas System (known as the Regents' *Rules and Regulations*). These references are included because (1) all of the Regents' *Rules and Regulations* have full force and effect as concerns The University of Texas at Austin; (2) certain aspects of student services and activities are treated only in the Regents' *Rules and Regulations*; and (3) certain portions of the *Institutional Rules* have since their enactment been superseded or amended by the Regents' *Rules and Regulations*.

The Regents' *Rules and Regulations* (<http://www.utsystem.edu/board-of-regents/rules>) are published by the board.

## Chapter 1. Student Orientation

### Subchapter 1–100. General Provisions

#### Sec. 1–101. Purpose and Application

- a. Student orientation programs are designed to initiate the integration of newly admitted first-year and transfer undergraduate students into the academic, cultural, and social climate of the University.
- b. The primary purpose of a University orientation program is to help new undergraduates understand the nature of the University, the educational opportunities available to them, the values and functions of the University community, and the central objective of the University as an academic enterprise. It also permits students to participate in academic advising and to learn about matters relating to student registration, housing, campus activities, and other aspects of University life.

### Sec. 1–102. Definitions

In this chapter, unless the context requires a different meaning,

1. "dean of students" means the dean of students or the dean's delegate or representative;
2. "director" means director of New Student Services;
3. "student" means a person enrolled in residence at the University or a person accepted for admission or readmission to the University while that person is on the campus; and,
4. "University" means The University of Texas at Austin.

### Subchapter 1–200. Administration of Orientation

#### Sec. 1–201. Duties of Director

The director, in direct coordination with the Offices of the Provost, Vice President for Student Affairs, Dean of Undergraduate Studies and Dean of Students, shall actively guide, plan, implement and evaluate the programs, services and publications designed to introduce incoming students to the University. In carrying out their responsibilities, the director is administratively responsible to and will report to the dean of students.

### Subchapter 1–300. Student Conduct

#### Sec. 1–301. Rules and Regulations Applicable to Student Conduct

Prospective students attending an orientation program are subject to the rules and regulations governing student discipline and conduct set out in chapter 11 of the *Institutional Rules*.

## Chapter 2. The Office of Admissions and the Office of the Registrar

### Subchapter 2–100. General Provisions

#### Sec. 2–101. Definitions

In this chapter, unless the context requires a different meaning,

1. "student" means a person enrolled in residence at the University or a person accepted for admission or readmission to the University while that person is on the campus; and
2. "University" means The University of Texas at Austin.

### Subchapter 2–200. The Office of Admissions

#### Sec. 2–201. The Executive Director of Admissions

The executive director of admissions is the administrative officer responsible for supervising the Office of Admissions and reports to the vice provost.

#### Sec. 2–202. The Office of the Executive Director of Admissions: Duties

- a. Serve as the coordinating office for University relations with high schools, junior and community colleges, and other educational institutions. A responsibility of this office is to disseminate information to prospective students about the University and about the admission process.
- b. Be responsible for the University's program of visitation to high schools and junior and community colleges. Develop outreach programs through which the University communicates with its constituents concerning the educational opportunities at the University.

- c. Receive and evaluate the admission credentials of each undergraduate applicant and determine the admission eligibility for these students and inform them of their admission status.
- d. Receive and examine credentials of former students who have not been in residence during a long-session semester to ascertain their eligibility for reentry.
- e. Evaluate, in conjunction with the academic departments, the courses from other colleges, universities, and junior colleges to determine their transferability to the University.
- f. Determine students' legal residence for admission and tuition purposes (see Texas Education Code, section 54.052).
- g. Be responsible for maintaining and coordinating admissions programs with the various academic areas.

## Subchapter 2–300. Admissions

### Sec. 2–301. Requirements, Procedures, and Policies

The requirements, procedures, and policies for admission and transfer to the University and for reentry after a semester's absence are set out in *General Information* and in the *Undergraduate*, *Graduate*, and *Law* catalogs.

### Sec. 2–302. Review and Appeal

- a. On request of a student, the Admission Appeals Committee will review a decision of the Office of Admissions pertaining to admission or transfer.
- b. A student may appeal a decision of the Admission Appeals Committee to the executive director of admissions.
- c. A student may appeal a decision of the executive director of admissions to the provost.

## Subchapter 2–400. Rules Applicable to Nonresidents

### Sec. 2–401. Where Found

*General Information* prescribes rules applicable to nonresidents in the [Admission Section](#) (p. 17).

### Sec. 2–402. Appeal

A student or applicant may appeal a decision of the Office of Admissions pertaining to residence status through the Office of General Counsel of The University of Texas System to the Office of the Chancellor by following the established procedure administered through the Office of Admissions.

## Subchapter 2–500. The Admissions and Registration Committee

### Sec. 2–501. Membership

- a. The Admissions and Registration Committee has 15 members. The members are
  1. six members from the General Faculty, for three-year staggered terms;
  2. two staff members for two-year staggered terms;
  3. two students appointed by the president from a panel of names submitted by Student Government for one-year terms;
  4. two students appointed by the president from a panel of names submitted by the Senate of College Councils for one-year terms;
  5. one student appointed by the president from a panel of names submitted by the Graduate Student Assembly for a one-year term; and
  6. two members from the Faculty Council, appointed by the chair of the Faculty Council for one-year terms.

- b. The executive director of admissions and the registrar serve the committee as administrative advisors without vote.

## Subchapter 2–600. The Office of the Registrar

### Sec. 2–601. The Registrar

The registrar is the administrative officer responsible for supervising the Office of the Registrar and reports to the senior vice provost for Enrollment Management and Student Success in the Office of the Executive Vice President and Provost.

### Sec. 2–602. The Office of the Registrar: Duties

The Office of the Registrar will

1. maintain the official inventory of courses;
2. maintain, by department and subject, records and reports about the class sizes;
3. assist departments in scheduling classes in a manner that results in optimum space utilization;
4. supervise and administer registration procedures;
5. prepare official publications, including bulletins, catalogs, and course schedules;
6. prepare statistical studies and reports of enrollment;
7. schedule final examinations, except in the School of Law and the Dell Medical School;
8. collect, record, and distribute grades;
9. maintain official academic records and issue transcripts;
10. prepare and issue official certifications regarding attendance, enrollment, and status;
11. prepare and issue diplomas;
12. certify student athletes for NCAA competition;
13. administer degree audits; and
14. certify the eligibility for student veterans for Veteran Services.

## Subchapter 2–700. Jurisdiction and Transfer

### Sec. 2–701. Jurisdiction

- a. Each student by registering enters a college or school of the University and is subject to the rules and regulations of that college or school. A student pursuing simultaneous majors in two colleges or schools is subject to the rules and regulations of both.
- b. Each student who takes a course in a college or school other than the college(s) or school(s) in which he or she is registered is subject to the requirements and rules applicable to that course in the college or school in which the course is taught.

### Sec. 2–702. Transfer to Another Division

- a. Students who have completed 45 or fewer semester hours of college credit and are not on scholastic dismissal are eligible to transfer between colleges and schools within the University regardless of their grade point average, provided they satisfy all conditions and procedures that apply to students who enter the new college or school and any program thereof when first admitted to the University. Students who have completed more than 45 semester hours of credit must present a 2.00 University grade point average to qualify for transfer between colleges and schools within the University. Transfer students from other institutions are eligible to transfer between colleges and schools within the University upon completion of their first long-session semester or summer session at The University of Texas at Austin regardless of the number of semester hours accumulated, provided they satisfy all conditions and procedures that apply to students who enter the new college or school and any program thereof when first admitted to the University.

- b. Students must complete transfer procedures by the end of the eighth class day of the semester (or the fourth class day of the summer session).
- c. Graduate students not previously admitted to the University as undergraduates may transfer from the Graduate School to an undergraduate college or school only if they (1) meet the general conditions for transfer, (2) satisfy any pertinent admission requirements for that undergraduate college or school, and (3) have the additional approval of the executive director of admissions.

## Subchapter 2–800. The Official Transcript of Academic Record

### Sec. 2–801. Nature of Transcript

- a. The provisions of chapter 9 of the *Institutional Rules* describe the official transcript of academic record.
- b. A student may obtain from the Office of the Registrar a copy of his or her transcript of academic record by paying a fee prescribed by the registrar. The transcript includes the recorded results of the student's classwork at the University.

## Subchapter 2–900. Reports of Academic Work

### Sec. 2–901. Semester Reports from Registrar

At the end of each semester and at the end of the summer session, the registrar will provide a report of each student's academic achievement to the student through a secure Web site.

# Chapter 3. Financial Aid

## Subchapter 3–100. General Provisions

### Sec. 3–101. Purpose

- a. As a state institution of higher education, the University endeavors to provide higher education for all eligible persons and to assist in the pursuit of their studies those who do not have sufficient financial resources.
- b. The Office of Scholarships and Financial Aid is responsible for administering certain funds for financial aid to students; for keeping abreast of programs relating to financial aid for higher education and to employment opportunities for students funded through federal, state and institutional work-study programs; for disseminating information relating to available financial aid programs and the cost of attending the University to enrolled students and prospective students; and for assisting students who have been accepted for enrollment at the University or who are enrolled at the University in obtaining loans, grants, scholarships, and employment to supplement payment of their educational expenses.

### Sec. 3–102. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

- 1. "Advisor" means the single individual a student has elected to accompany him or her to a meeting with the director or a hearing regarding an aid decision. As the student is solely responsible for presenting his or her case during the hearing, an advisor serves only in a support capacity and may not verbally advocate for the student in a meeting with the director or in a hearing. If an advisor poses a conflict of interest, the director or the Subcommittee on Appeals may elect to excuse his or her presence, and advisors may be dismissed from any proceedings if they disrupt the process.
- 2. "Aid decision" means a written decision regarding the amount of financial aid award to a student by the University under a financial aid program administered by the Office of Scholarships and

Financial Aid and includes the findings of fact in support of the decision.

- 3. "Day" means calendar day.
- 4. "Director" means the executive director of scholarships and financial aid or the director's delegate.
- 5. "Financial aid record" means a student record as defined in subsection 9–202(a)(4) of the *Institutional Rules* that is maintained by the director in connection with a financial aid program administered by the Office of Scholarships and Financial Aid. The record may include applications, forms, notices, hearing records, aid decisions, and other documents required under this chapter or deemed relevant by the director.
- 6. "Student" means a person who is currently enrolled at the University, or who is accepted for admission or readmission to the University, or who has been enrolled at the University in a prior semester or summer session and is eligible to continue enrollment in the semester or summer session that immediately follows.
- 7. "University" means The University of Texas at Austin.
- 8. "Senior Vice Provost" means the senior vice provost for enrollment management and student success of The University of Texas at Austin, or his or her designee.
- 9. "Weekday" means Monday through Friday.

## Subchapter 3–200. The Director of The Office of Scholarships and Financial Aid

### Sec. 3–201. Administration of Financial Aid

- a. The director will administer institutional, state, and federal programs for scholarships, loans, grants, and other specified financial aid in accordance with the legal provisions and limitations, if any, of particular funds, or in accordance with policies recommended by the Committee on Financial Aid to Students.
- b. The director is in charge of the Office of Scholarships and Financial Aid and is administratively responsible to and will report regularly to the senior vice provost.

### Sec. 3–202. Duties of Staff

Staff members will process applications for students who need assistance in financing their educational expenses.

## Subchapter 3–300. The Committee on Financial Aid to Students

### Sec. 3–301. Membership

- a. The Committee on Financial Aid to Students has fourteen members and at least three administrative advisors. The members are
  - 1. five members from the General Faculty, representing five colleges or schools of the University, appointed by the president for two-year staggered terms;
  - 2. two staff members appointed by the president for staggered two-year terms;
  - 3. five students (four undergraduate and one graduate), including at least two who are receiving or have received financial aid from the Office of Scholarships and Financial Aid; four of the students are appointed by the president from a panel submitted by Student Government; the fifth student is appointed by the president from a panel submitted by the chair of the Graduate Student Assembly; student members will be appointed for two-year staggered terms; and
  - 4. two members from the Faculty Council, appointed by the chair of the Faculty Council for one-year terms.
- b. The director, a representative of the dean of students, and a representative of the Office of Graduate Studies serve as administrative advisors without vote. The president may appoint

additional nonvoting administrative advisors from the general administration areas of the University.

- c. A Subcommittee for Appeals is designated from the full committee. The subcommittee is composed of no fewer than three of the five members from the General Faculty as voting members and the administrative advisors without vote.

### **Sec. 3–302. Duties of Committee**

- a. The full committee initiates and reviews policies and procedures for the Office of Scholarships and Financial Aid.
- b. The Subcommittee for Appeals hears appeals from decisions regarding awards or policies of the Office of Scholarships and Financial Aid and makes recommendations to the director.

## **Subchapter 3–400. Appeals to the Committee on Financial Aid to Students**

### **Sec. 3–401. Procedure for Denial or Revocation**

- a. If a recipient of or an applicant for a loan, grant, scholarship, or Federal College Work-Study job administered by the Office of Scholarships and Financial Aid is not entitled to financial aid, the recipient or applicant will be notified in writing of the denial or revocation of aid and of the reason.
- b. Reasons for the denial or revocation of financial aid include, but are not limited to, the following:
  1. failure to maintain a satisfactory academic record; or
  2. failure to enroll for or to maintain the minimum academic course load requirement; or
  3. failure to show continuing need because of a change in financial status; or
  4. failure to meet requirements established by the financial aid agreement and the Committee on Financial Aid to Students; or
  5. failure to provide required financial documents; or
  6. background indication that the applicant might constitute an unnecessary credit risk in the matter of loans; or
  7. evidence of fraud, or intent to defraud; or
  8. failure to meet federal, state, or institutional requirements for financial eligibility.

### **Sec. 3–402. Appeal**

- a. A person whose aid has been denied or revoked under section 3–401, after exhausting all internal review processes through the Office of Scholarships and Financial Aid, may appeal the decision to the Subcommittee for Appeals.

### **Sec. 3–403. Appeal to Subcommittee for Appeals**

- a. To appeal a denial or revocation of aid to the Subcommittee for Appeals, the student must submit a written appeal to the director. The appeal must state the name of the student, the date the aid decision was issued by the director, and specific reasons for the appeal, including any related argument and all relevant documentation.
- b. The appeal must be submitted by letter or by e-mail within ten days from the date on which the student received the aid decision from the director. A letter will be considered to have been received on the third day after the day of mailing. An e-mail message will be considered to have been received on the second day after the day of sending the message.

### **Sec. 3–404. Hearing Before the Subcommittee for Appeals**

The Subcommittee for Appeals will preside over the hearing and will:

1. determine whether the Office of Scholarships and Financial Aid has satisfactorily performed the requirements of section 3–401 and subsection 3–402(a);
2. facilitate the hearing process, which includes the ability to excuse any party present at the hearing if he or she is disrupting the process; render a written decision, which will contain findings of fact; approve, reject, or modify the decision of the director; and provide the student and the director with a copy of the decision; and
3. certify the record of the hearing.

### **Sec. 3–405. Duties of the Director**

The director, in consultation with the Subcommittee for Appeals, will:

1. set the date, time, and place for the hearing and notify the student of the date, time, and place;
2. arrange for recording the hearing as provided in subsection 3–409(d); and
3. furnish a suitable room, necessary equipment, and clerical assistance for the hearing.

### **Sec. 3–406. Notice of Hearings**

- a. The Office of Scholarships and Financial Aid will notify the student by letter or by e-mail of the date, time, and place for the hearing. The notice will be delivered in person or sent by e-mail or postal mail to the student at an address listed in the registrar's records.
- b. The notice will specify a hearing date at least ten days after the date the letter or e-mail message is received, unless the student has requested an earlier date as allowed by subsection 3–406(c). A letter or an e-mail message sent to an address listed in the registrar's records will constitute full and adequate notice. A letter will be considered to have been received on the third day after the day of mailing. An e-mail message will be considered to have been received on the second day after the day of sending the message.
- c. The student may request, in writing, that an earlier hearing date be set if feasible to arrange.
- d. Notice sent under subsection 3–406(a) will
  1. direct the student to appear on the date and at the time and place specified;
  2. contain the name of the persons appointed to serve on the Subcommittee for Appeals;
  3. contain the names of witnesses who may testify against the student, copies of all documentation and other evidence that will be offered against the student;
  4. contain a copy of the financial aid decision by the director; and
  5. notify the student that, if the student is advised by an attorney at the hearing, then the Subcommittee on Appeals may be advised by an attorney at the hearing. An advisor may confer with and advise the subcommittee or the student but will not be permitted to question witnesses, introduce evidence, make objections, or present arguments to the subcommittee.
- e. At least five days before the hearing, the Office of Scholarships and Financial Aid will make copies of documents to be introduced at the hearing available to the student.

### **Sec. 3–407. Preliminary Matters in Hearings**

- a. At least five days before the hearing date, the student will furnish the director with a list of any witnesses who may testify on behalf of the student
- b. At least five days before the hearing date, the student will furnish the Subcommittee for Appeals with

1. any objection that, if sustained, would postpone the hearing; and
2. the name and relationship of the advisor to the student, if any, who will appear with the student.

*Rules* and federal and state law; and the student's financial aid record, if any. The Subcommittee for Appeals may approve, reject, or modify the director's decision.

### Sec. 3–408. Hearing Procedure

- a. The Subcommittee for Appeals will review written arguments and then meet with both parties together to ask questions, seek clarification, and hear any final comments by the parties.
- b. The Subcommittee for Appeals' meeting with the parties is informal and is closed.
- c. Although the hearing will proceed generally as follows, the Subcommittee for Appeals may adjust the sequence of the hearing as necessary to ensure fairness. The hearing will last approximately one hour:
  1. the director reads the aid decision;
  2. the director and the student are each given the opportunity to make an opening statement;
  3. the director is given the opportunity to present the University's witnesses and evidence and the student then has the opportunity to question any of the University's witnesses;
  4. the student is given the opportunity to present his or her witnesses and evidence and the director then has the opportunity to question any of the student's witnesses;
  5. the director and the student are given the opportunity to present rebuttal evidence and argument;
  6. the director is given the opportunity to present a recommendation regarding the aid decision under review;
  7. the student is given the opportunity to present a rebuttal and recommended outcome;
  8. the director is given the opportunity to present a closing statement;
  9. the student is given the opportunity to present a closing statement; and
  10. the Subcommittee for Appeals decides whether the aid decision made under section 3–401 and subsection 3–402(a) should be upheld, reversed, or modified.

### Sec. 3–409. Evidence in Hearings

- a. Legal rules of evidence do not apply to hearings under this subchapter; the Subcommittee for Appeals may admit evidence, including testimony, which possesses value and is commonly accepted by reasonable people in the conduct of their affairs. The Subcommittee for Appeals will exclude irrelevant, immaterial, and unduly repetitious evidence. All evidence admitted during the hearing will be made a part of the record.
- b. A witness will testify unless the testimony is privileged as recognized by law or is excluded by the Subcommittee for Appeals.
- c. The Subcommittee for Appeals will review the aid decision made under section 3–401 and subsection 3–402(a) on the basis of admitted evidence. The Subcommittee for Appeals may consider the student's financial aid record that was admitted into evidence at the hearing in determining an aid decision.

### Sec. 3–410. Decision of the Subcommittee for Appeals

- a. Within fourteen days from the completion of the hearing, but not before the certification of the recording and of the transcript, if any, the Subcommittee for Appeals will render a written decision. The student and the director will each be given a copy of the decision. The Subcommittee for Appeals' written decision is the official decision on the matter from which any appeal is taken.
- b. The criteria on which the Subcommittee for Appeals' decision will be based are fairness; reasonableness; compliance with the *Institutional*

### Sec. 3–411. Hearing Record

The hearing record consists of

1. a copy of the notice required under section 3–406;
2. the recording of the hearing certified by the Subcommittee for Appeals and the transcript, if any, together with all evidence admitted under section 3–409;
3. written motions and pleas, if any; and
4. the decision of the Subcommittee for Appeals.

## Subchapter 3–500. Disciplinary Offenses

### Sec. 3–501. Procedures for Initiating Disciplinary Action

When there is evidence of fraud, or intent to defraud, or indications of other disciplinary offenses in regard to a student application for or receipt of aid, the Office of Scholarships and Financial Aid will refer the student to the dean of students for disciplinary action. In addition, in accordance with federal and state law, the Office of Scholarships and Financial Aid will report such actions to the United States Department of Education's Office of the Inspector General.

### Sec. 3–502. Disciplinary Review

Disciplinary review for student aid disciplinary offenses will be handled by the Office of the Dean of Students and governed by subchapter 11–200 of the *Institutional Rules*, "Administration of Discipline."

## Chapter 4. University Health Services

### Subchapter 4–100. General Provisions

#### Sec. 4–101. Purpose

University Health Services (UHS) is part of the Division of Student Affairs. It provides healthcare and public health leadership to support students in reaching their optimal health so they can achieve their academic and personal potential. To that end, UHS provides: (1) a broad range of professional health services for the diagnosis and treatment of illnesses and injuries; (2) preventive health services such as physicals and well-woman exams; (3) physical therapy and nutrition services; (4) public health initiatives, including the promotion of a healthy campus; (5) immunizations for vaccine-preventable diseases; and (6) other public health services such as responding to certain infectious diseases on campus.

For a detailed discussion of benefits and services offered, see the UHS [website](#).

#### Sec. 4–102. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Executive Director and Chief Medical Officer" means the executive director and chief medical officer of UHS.
2. "President" means the president of The University of Texas at Austin.
3. "Student" means a person enrolled at the university.
4. "University" means The University of Texas at Austin.
5. "Vice president" means the vice president for student affairs or a delegate or representative of the vice president.

## Subchapter 4–200. The Executive Director and Chief Medical Officer

### Sec. 4–201. The Executive Director and Chief Medical Officer

- a. The executive director and chief medical officer is responsible for all clinical services, initiatives and programs; provides organizational oversight, campus leadership and strategic planning activities of UHS and reports to the associate vice president for student affairs.
- b. The executive director and chief medical officer is responsible for serving as a liaison to campus leaders and media and for planning for and responding to campus public health emergencies.
- c. The executive director and chief medical officer is responsible for establishing the clinic structure and specifying functional relationships among organizational components of clinical and clinic support operations, providing for the orderly development and management of the unit, supporting a policy on patients' rights and responsibilities, maintaining a program that evaluates the quality of care provided and appropriately addressing identified problems.
- d. The executive director and chief medical officer is responsible for providing consultation in matters concerning the delivery of healthcare services and emerging public health issues affecting The University of Texas at Austin.

## Subchapter 4–300. Medical Clearance Requirements for New and Returning Students, Fees, Payment for Services and Eligibility for University Health Services

### Sec. 4–301. Medical Clearance Requirements

Entering students who have not provided acceptable documentation to comply with applicable medical clearance requirements below will not be allowed to register for classes until they do so. Students should submit medical clearance documentation (including acceptable documentation for exemptions) at least two weeks before their intended registration date to allow for sufficient processing time.

Information about acceptable documentation to comply with the requirement below, how to submit documentation, allowable exemptions for certain requirements and acceptable documentation to claim an exemption resides on the [UHS website](#). During emergencies or epidemics declared by the governor or commissioner of health of the State of Texas or disasters or other emergencies, exemptions on the basis of reasons of conscience (including religious conflict) may be denied if allowed by rule, executive order or law.

- a. All entering students, regardless of age or classification, must submit documentation that they are immune to measles before they will be allowed to register for classes.
- b. All entering students who will be under the age of 22 on the first class day of the semester in which they are enrolling must submit documentation that they have received a meningococcal disease (bacterial meningitis) vaccine administered within five years of and at least ten days before the first class day of the semester in which they are enrolling. This includes transfer students and students who previously attended the university or another institution of higher education (or private or independent institution of higher education) and who are entering the university following a break in enrollment of at least one fall or spring semester. Students age 22 or older or who are enrolled only in online or distance courses are exempt from the meningococcal vaccine requirement.

- c. International students entering any semester must provide proof of the following by submitting acceptable documentation as described on the [UHS website](#). If they meet the criteria described in Sec. 4-310b, they must also provide proof of a meningococcal vaccine as described in that section.
  1. Proof of immunity to measles, mumps, and rubella as documented by one of the methods described on the [UHS website](#).
  2. If indicated following an online screening questionnaire, proof of an acceptable tuberculosis screening test as described at Medical Clearance Requirements for International Students and administered on or after the date listed on that page. If either acceptable test is positive, documentation of a chest x-ray performed in the U.S. on or after the same date is required, regardless of a history of previous treatment.

### Sec. 4–302. Fees

UHS is funded by tuition paid by students and by charges for supplies and services. There are charges associated with UHS clinic visits. A charge applies for missed appointments or appointments not canceled in the specific time frame for that appointment type. Complete information about [UHS charges](#) is detailed online.

### Sec. 4–303. Payment for Services

Any student who incurs a charge for services rendered by UHS must pay the charges owed, but they do not have to pay for services on the date they are provided, except for students who have health insurance and request that a claim not be filed with their insurance company. UHS can assist a student in arranging a payment plan. If payment is not received or arrangements for payment are not made within ten days of the date charges are posted to "What I Owe," a financial bar will be placed on the student's record. Barred students can contact the UHS/CMHC Billing and Insurance Office to discuss options that will allow them to register. Transcripts, diplomas and/or continued registration will be withheld until outstanding charges have been paid.

UHS can file claims for payment with most health insurance plans; however, health insurance is not required to be seen at UHS. For more information, including the Student Administrative Health Fee and the types of plans with which claims can and cannot be filed, go to the [UHS website](#).

By providing their insurance information, a student authorizes UHS to file a claim with the student's insurance company for services rendered. A student who does not want an insurance claim to be filed for medical services must let UHS know at the time of their appointment.

A student's insurance company may determine that some or all charges incurred at UHS are not covered. The student is responsible for learning what their insurance covers.

For students who do not have health insurance and cannot or prefer not to pay at the time of service or who have health insurance that does not pay for a part or all charges, UHS will post their balance to "What I Owe." Discounted rates are available for students who do not have insurance, who are underinsured or who are covered by Medicare or Medicaid.

### Sec. 4–304. Eligibility to Use University Health Services

- a. An individual may use UHS if:
  1. the person is a currently enrolled student at the university,
  2. the person has been admitted to the university and needs required or recommended immunizations or medical tests to matriculate,
  3. for Urgent Care services only, the person is participating in university-sponsored short-term activities such

as seminars, institutes and workshops provided the sponsoring agency has entered into an agreement with UHS by properly completing the Request to Use University Health Services form and paying the associated agreement fee. The sponsoring department is responsible for any unpaid charges incurred by program participants,

4. the person is a university faculty or staff member who is participating in a public health or immunization program. Faculty and staff are not eligible for regular services except for travel-related immunizations, nutrition services, physical therapy, certain campus outreach and educational programs and services arranged and paid for by Interdepartmental Transfer by a university department,
  5. the person has paid a UHS Service Extension Fee and was registered during the semester immediately preceding the semester when services are requested (excluding university students who have graduated or who withdrew from the university before the twelfth class day of the prior semester),
  6. the person has been admitted to the university, has paid a UHS Service Extension Fee, and will enroll the semester following the time services are requested,
  7. the person has paid a UHS Service Extension fee and is a visiting scholar/researcher who is not officially registered for classes at the university, a post-doctoral fellow or a person enrolled in the English as a Second Language Program, or,
  8. the person is a student from another University of Texas System institution that has entered into an agreement with the university, otherwise called a Contractual Student.
- b. Registered students become eligible to use UHS the day university residence halls open for that semester, except for International Students who become eligible on the first day of coverage of the student health insurance plan. Students remain eligible for services until the day before residence halls open for the subsequent semester. Specific eligibility dates are given in the [Academic Calendar](#) (p. 7) published in the *General Information Catalog* and at the registrar [website](#).

## Subchapter 4–400. General Administrative Policies

### Sec. 4–401. Informed Consent

The parent or guardian of a minor student must give appropriate consent for treatment before care can be provided at UHS, except when a minor student meets State of Texas criteria to consent for their own care or in cases where immediate medical care is required to stabilize a patient for transfer to an emergency facility.

### Sec. 4–402. Medical Withdrawal from the University

Requests for withdrawal from the university for medical reasons may be initiated at the request of a student. Applications to request consideration of a medical withdrawal should be submitted to Services for Students with Disabilities. Services for Students with Disabilities will involve UHS or the appropriate dean's office, as indicated by the student's individual circumstances.

### Sec. 4–403. Responsibility of University Health Services

Any intentional action on the part of the student that is against the advice of a UHS health care provider abrogates all responsibility on the part of UHS.

### Sec. 4–404. Requests to Administer Medications

Requests to administer medications ordered by a private physician must be within the scope of services offered at UHS, meet the standard of care provided by UHS medical staff, be supported by appropriate medical documentation from the prescribing physician and be approved by the executive director and chief medical officer.

### Sec. 4–405. Routine, Urgent and Emergency Care Services

- a. UHS is not equipped to manage medical emergencies. In the case of a medical emergency, students should call 911.
- b. For routine health concerns, students may schedule appointments by calling (512) 471-4955 during posted weekday business hours. Students can also schedule many types of appointments [online](#).
- c. Students who need prompt medical attention for illnesses or injuries may be asked to come to UHS for an urgent care visit not requiring an appointment.
- d. Current operating hours are posted on the University Health Services [website](#).

### Sec. 4-406. 24-hour Nurse Advice Line

The UHS Nurse Advice Line (512-475-6877) is available for students 24 hours a day, every day of the year. Advice Line nurses can help students determine whether and how soon they need medical care or can provide self-care advice for illnesses and injuries when appropriate.

### Sec. 4–407. Treatment at Other Facilities

- a. UHS assumes no financial responsibility for a student's care at another medical facility.
- b. A student who goes to or is taken to another medical facility for emergency or other treatment, regardless of geographical location or other circumstantial factors, is responsible for all resulting costs.

### Sec. 4–408. Personal Property

- a. UHS is not responsible for a student's personal belongings; the student is responsible for arranging for the safekeeping of these articles.
- b. In instances when it is necessary for UHS to maintain custody of a patient's property or when a patient leaves personal possessions in waiting rooms or clinics, UHS will exercise all prudent means of securing and returning such property to the owner but cannot be held responsible for losses through theft.

### Sec. 4–409. Medical Records

All original medical records (whether electronic or paper) and other records of treatment, whether originating within UHS or another facility or provider, are the property of UHS. Medical information may be disclosed as required by state or federal law. Many items summarizing patient care are available on the patient portal. Additional information from patient records will be released only with informed written consent. Students have the right to review, inspect or request copies of their medical records.

## Chapter 5. University-Owned Residences

### Subchapter 5–100. General Provisions

#### Sec. 5–101. Purpose

University-owned residences are provided and operated by The University of Texas at Austin with the welfare of students as the primary goal. The

University provides a variety of living accommodations for students and endeavors to maintain a high quality of life within residences through the development of counseling, educational, and social programs within the residence units.

### **Sec. 5–102. Application**

Student residents and their guests are subject to the applicable provisions of this chapter and to the provisions set forth in Sec. 11–401, Sec. 11–403, and Sec. 11–404 of the *Institutional Rules on Student Services and Activities*.

### **Sec. 5–103. Definitions**

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. “Guest” means an individual who has been personally invited by a University Resident to enter into the resident’s residence; remaining there, for a period of time not to exceed 72 hours.
2. “Residence” means a University-owned family housing unit, a University-owned residence hall or cooperative, or any other subsidiary facility.
3. “Student” means a person who has applied for or entered into a residence contract with the University or who occupies a room or dwelling in a residence.
4. “University” means The University of Texas at Austin.
5. “Assistant vice president” means the assistant vice president of University Housing and Dining at The University of Texas at Austin.
6. “Vice president” means the vice president for student affairs at The University of Texas at Austin.

### **Sec. 5–104. Eligibility**

- a. To be eligible for residence in University residence halls or University Apartments, undergraduate students must be enrolled for at least twelve semester hours during each long-session semester; graduate and law students must be enrolled for at least nine semester hours or six dissertation hours each long-session semester. Exceptions for undergraduate students must be approved by the dean of the student’s college or school and the assistant vice president. The graduate dean and the assistant vice president must approve exceptions for graduate students. The assistant vice president will review the contract status of residents who drop below the minimum hours requirement to determine the necessity of contract cancellation.
- b. To be eligible as a student resident in the University Apartments, (1) you must be a graduate student at The University of Texas at Austin; or (2) you must be an undergraduate student with at least thirty semester hours credit and in good standing with the University. Registered sex offenders are not permitted to live in University-owned housing, which includes the University Apartments. Full-time students will be given preference to live in University-owned housing over part-time or full-time employees of The University of Texas at Austin, even if the employees are also full-time graduate students or undergraduate students with at least 30 semester hours credit. Subject to applicable law, University rules and policy, the Contract Holder may allow guests to visit their assigned apartments. “Guest” means an individual who has been personally invited by a Contract Holder to enter into the Contract Holder’s apartment. Guests are permitted to visit for a period of time, not to exceed 72 consecutive hours. Guests are not permitted to reside in (or occupy) the apartment on a long term basis. “Family Members” means individuals who are related to the Contract Holder by marriage, civil union, domestic partnership, informal marriage, dependency or some other form of recognized familial relationship. Family members are permitted to reside in the apartments that are designated for

family housing. Certain stipulations apply. See the University Apartment Living Guide for the complete policy and rules pertaining to family members. Any changes in occupancy must be reported to the University Apartment’s staff within 48 hours of the change. A Contract Holder’s invitation to a guest or family member may be revoked at their discretion and be withdrawn by the Contract Holder without the need to express any reason or basis for the revocation. The following restrictions to occupancy apply: In Colorado and Gateway (Single-Occupant Apartments): one-bedroom apartment, maximum of one (1); two-bedroom apartment, maximum of two (2).

In Brackenridge (Family Housing): one-bedroom apartment, two to three (2-3) occupants; two-bedroom apartment, two to five (2-5) occupants; three-bedroom apartment, four to seven (4-7) occupants. These limits will be strictly enforced.

- c. Should residents violate any of the conditions of the contract, the assistant vice president may, in the future, refuse to contract any premises to those residents.

## **Subchapter 5–200. Administration of Housing**

### **Sec. 5–201. Responsibilities of Supervisory Officials**

The assistant vice president is responsible to the vice president for discipline, counseling, and the quality of life in residences, and the fiscal and physical management of residences.

### **Sec. 5–202. Rule Making in Residences**

- a. The occupants of each student residence may make reasonable rules governing life in that residence.
- b. Residence rules may not conflict with the *Institutional Rules, Handbook of Operating Procedure, Regent’s Rules and Regulations*, local, state or federal law, and will take effect when they are approved by the assistant vice president and vice president. Such rules will be publicized to all residents immediately upon taking effect.

## **Subchapter 5–300. Residence Hall Contracts**

### **Sec. 5–301. Terms of Contract**

- a. Charges for housing and meals begin and end on the official dates of the contract period.
- b. The effective dates and terms and conditions of the contract are provided with each contract.
- c. Students who are under contract may not terminate the contract except as provided in the contract and in Subchapter 5–400.
- d. Expenses incurred in collecting the total amounts due under a contract, including collection fees up to a maximum of 33 1/3% of the amount due, attorney’s fees, and other costs, including court costs, will be the responsibility of the obligor.

### **Sec. 5–302. Enforcement of Contracts**

- a. The assistant vice president, or the assistant vice president’s delegate, enforces residence contracts.
- b. The vice president is the final level of appeal in contract disputes.

### **Sec. 5–303. Student Responsibility**

- a. Each student will meet all obligations for housing and meals and will observe all conditions of the contract. The student has the option to pay for housing and meals:
  1. in full;
  2. in half payments due once each semester;
  3. in six payments due three times each semester; or
  4. for spring only, in three payments.
- b. Students who do not comply with the terms of the housing and meals contract may be subject to University disciplinary action as provided in Chapter 11 of the *Institutional Rules*.

## Subchapter 5–400. Termination of Contracts

### Sec. 5–401. Graduation

Except as provided under Sec. 5–405, students who leave the University at the end of the fall semester because of graduation will not be liable for room rent or meals charges beyond the end of the semester, provided notification of graduation is filed by the official cancellation date for the spring semester. Students will be billed for any damages to the premises and any other applicable charges. Students who cancel after the official cancellation date will be charged \$300 for liquidated damages. Cancellations received after the residence halls open for the spring will be handled as withdrawals during the spring semester. Students who are released from a contract because of graduation will again become liable for the contract if they fail to graduate from the University during the original contract period.

### Sec. 5–402. Voluntary Withdrawal from the University

Except as provided under Sec. 5–405,

- a. Students who voluntarily withdraw from the University during a contract period are normally required to pay liquidated damages of \$300 in addition to standard room and meals charges through the date of checkout. Students who withdraw from the University at the end of the fall semester will be billed through the end of the fall semester, provided notice of cancellation is received by the official cancellation date for the spring semester. Students who cancel after the official cancellation date will be charged \$300 for liquidated damages. Cancellations received after the residence halls open for the spring will be handled as withdrawals during the spring semester. Students must normally move within twenty-four hours after withdrawing from the University.
- b. Students who are released from a contract because of voluntary withdrawal from the University will again become liable for the contract if they re-enroll in the University during the original contract period.

### Sec. 5–403. Required Withdrawal from the University

Except as provided under Sec. 5–405, students who are required by the university to withdraw from the university are not liable for paying room rent or meals charges beyond the date of moving, but they will pay all charges that accrue under the contract through the checkout date plus \$300 in liquidated damages, any charges for damage to the premises, and any other applicable charges. The University will refund any prepaid room or meals balance less any charges for damages to the premises or any other applicable charges. The University reserves the right to suspend a student from the residence halls for failure to abide by the terms and conditions of the contract. Students who fail to register as regularly enrolled students will be required to move as outlined in Sec. 5–402(a).

### Sec. 5–404. Withdrawal from University-Owned Residences during the Contract Period

Except as provided under Sec. 5–405, students granted permission to move within the contract period are required to pay liquidated damages of \$300 in addition to standard room and meals charges through the date of checkout.

### Sec. 5–405. University Apartments Contracts

- a. All contract actions require 60 days written, advanced notice, hereafter referred to as 'proper notice.'
- b. Vacancy notice must be completed and filed with the University Housing staff 60 days prior to termination of the contract.
- c. Completion of a 12 month stay and proper notice is required in order to be eligible to vacate without penalty. Vacating after 12 months

occupancy without proper notice will result in a re-letting fee of 100% of your monthly rate and utility charges.

- d. Early contract termination at the end of a semester will be available, without penalty, if you are graduating or completing all academic requirements as confirmed by written documentation from the Dean of your college, with proper notice. Vacating without proper notice will result in a re-letting fee of 100% of your monthly rate and utility charges.
- e. Vacating before 12 months occupancy, with proper notice and for any reason other than graduating or completing all academic requirements, will result in a re-letting fee of 100% of the remaining month's rate and utility charges.
- f. Vacating before 12 months occupancy, without proper notice, will result in a re-letting fee of 100% of the remaining month's rate and utility charges and an early contract termination charge equal to two months' rate or a prorated daily rate charge from the date of notice until the unit is re-leased, whichever is less.
- g. Failure to move out or file vacancy notice at the end of the contract period or the last day of the month in which you graduate, whichever comes first, results in a charge of 100% of one month's rate and utilities charges plus \$50 per day for each day you are occupying the apartment past the notice to vacate date. You may request a move out extension with a minimum of one week prior to the move out date indicated on your notice to vacate. Extensions must be approved in advance by the University Housing staff. Please speak with a member of the University Housing staff regarding requests for move out extensions.
- h. Failure to move out on or before 5 p.m. on the exact date required under the contract (e.g. the end of the contract term or the date listed on the vacancy notice) you must pay 100% of one month's rate and utilities charges plus \$50 per day for each day you are occupying the apartment past the notice to vacate date. You agree to indemnify The University and/or prospective residents for damages incurred, including lost income, storage, lodging expenses, and attorney's fees, if such damages are incurred.

## Chapter 6. Student Organizations

### Subchapter 6–100. General Provisions

#### Sec. 6–101. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Academic or administrative unit" means any office or department of the University.
2. "Authorized representative" or "officer" means a student designated to represent or speak for a registered student or sponsored student organization in its relations with the University and to receive official notices, directives, or information from the University on behalf of the registered student or sponsored student organization.
3. "Day" means an 8:00 a.m. to 5:00 p.m. calendar day, and excludes weekends, University holidays, skeleton crew days, and days on which regularly scheduled classes are suspended due to emergent situations. "University holiday" and "skeleton crew days" means days identified in the holiday schedule published by the Office of Human Resource Services. If a deadline defined in this chapter falls on a Saturday, Sunday, University holiday or skeleton crew day, that deadline will be moved to the next day.
4. "Dean of students" means the dean of students of The University of Texas at Austin or the dean of students' delegate or representative.
5. "Legislative student organization" means a student association as defined by the Regents' *Rules and Regulations*, Rule 50203. Legislative student organizations include but are not limited to

Student Government, the Senate of College Councils, and the Graduate Student Assembly.

6. "Officially sponsored," "sponsorship," or "sponsored student organization" means a student organization whose purpose and activities are in accord with the mission of an academic or administrative unit, for whose actions and activities the sponsoring unit provides endorsement, support, supervision, and assumption of responsibility, and that has been officially approved by the vice president through an annual application as prescribed by the dean of students.
- A. "Endorsement" means that the sponsoring administrative or academic unit gives approval of the sponsored student organization's status as an official extension of the unit and sanctions the mission, goals, and activities of the sponsored student organization.
- B. "Support" means to provide for or to maintain by contributing the necessary money, physical space, staff, advising, mentoring, and other resources that the sponsored student organization needs to carry out its mission, goals, and activities.
- C. "Supervision" means to monitor, oversee, and advise the sponsored student organization. Supervision includes sanctioning and approving all activities and events of the sponsored student organization; maintaining personal knowledge of the sponsored student organization's structure, operations, and activities; and taking action as necessary to ensure that all affairs of the sponsored student organization are consistent with the mission and culture of the sponsoring administrative or academic unit and the University.
- D. "Assumption of responsibility" means to ensure endorsement, support, and supervision of all aspects of the sponsored student organization. Assumption of responsibility includes accepting financial accountability for all funds collected or spent; making sure the sponsored student organization conducts its affairs in accordance with all applicable University rules and regulations, Regents' *Rules*, and local, state, and federal laws; and providing the necessary physical and personnel resources, including a dedicated sponsored student organization advisor.
7. "Registered student organization" means a student organization holding a valid registration under this chapter. Registered student organizations are considered private entities and are not viewed as extensions of an academic or administrative unit, or of the University. Registration ensures privileges as outlined in subsection 6-301 and allows the registered student organization to function within the institutional context.
8. "Registered student organization advisor" means a person serving in an advisory capacity to a registered student organization to provide guidance to the registered student organization and its members. A person serving as an advisor to a registered student organization affected by section 51.9361 of the Texas Education Code must be someone who
- A. is at least twenty-one years of age;
- B. is not enrolled as a student at the University;
- C. serves as either;
1. a part-time or full-time employee of the University; or
  2. a representative of a national organization that is associated with the registered student organization.
- D. completes the Safety Education Program at least once in their tenure as an advisor.
9. "Sponsored student organization advisor" means a University staff or faculty member from the sponsoring administrative or academic unit who is serving in an advisory capacity to provide guidance to the sponsored student organization and its members. A person serving as an advisor to a sponsored student organization affected

by section 51.9361 of the Texas Education Code must be someone who

- A. is at least twenty-one years of age;
- B. is not enrolled as a student at the University;
- C. serves as a part-time or full-time employee of the University; and
- D. completes the Safety Education Program at least once in their tenure as an advisor.
10. "Student" means a person who is currently enrolled at the University.
11. "University" means The University of Texas at Austin. For the purposes of this chapter, "University" also includes all activities and programs sponsored by or affiliated with The University of Texas at Austin regardless of the actual location where such activities or programs occur.
12. "Vice president" means the vice president for student affairs at The University of Texas at Austin, or his or her designee.

## Subchapter 6–200. Registration

### Sec. 6–201. Registration Required

Any group of students that wants to exercise any of the rights and privileges listed in section 6–301 will apply to the dean of students to be recognized as a registered student or sponsored student organization. An application for a new organization may be submitted semesterly during a period prescribed by the dean of students. Annual registration for existing student organizations occurs during a period prescribed and advertised by the dean of students.

### Sec. 6–202. Application

A group of students that wants to be recognized or maintain their status as a registered student or sponsored student organization must

1. apply on a form prescribed by the dean of students;
2. provide a list of ten or students as members, three of which must be identified as officers including one as president;
3. submit an organization constitution that includes all sections and content prescribed by the dean of students; and
4. provide any other information required by the dean of students.

### Sec. 6–203. Membership

1. Registered and sponsored student organizations may not deny membership on the basis of race, color, religion, national origin, gender identity, or gender expression, except that
  1. a registered student organization created primarily for religious purposes may restrict the right to vote or hold office to persons who subscribe to the registered student organization's statement of faith; and
  2. a registered student organization may restrict membership based on the provisions of Title IX of the Education Amendments of 1972.
2. Registered and sponsored student organizations must limit membership to students, faculty members, and staff members of the University.

### Sec. 6–204. Use of University Name

- a. No student, unregistered group, or registered student, faculty, or staff organization may use the name of the University or an abbreviation of the name of the University as part of its name. A student, group, or organization may use terms such as "campus" or "Texas campus" or [name of organization] at The University of Texas at Austin as part of its name.

- b. No student, unregistered group, or registered student, faculty, or staff organization may advertise or promote any event or activity in a manner that falsely suggests that the event or activity is sponsored by the University.

### Sec. 6–205. Action on Application

- a. In considering a completed application, the dean of students will not base approval on the merits of the proposed registered student or sponsored student organization's purpose, but will register the applicant unless
1. it is ineligible under sections 6–202, 6-203, and 6-204;
  2. there are bars, including financial, against the registered or sponsored student organization; or
  3. it is under a disciplinary sanction prohibiting registration.
- b. If a group of students is refused registration, the dean of students will provide the applicant with a written statement of the reasons for refusal within 14 days of receiving the application and the applicant may appeal in accordance with section 6–508.

### Sec. 6-206. University Sponsorship of Student Organizations

- a. Only a sponsored student organization may use the name of the University or an abbreviation of the name of the University or any of the University's trademarks or service marks as part of or in conjunction with its student organization name.
- b. Sponsorship may not be extended to registered student organizations involved in political or religious activities or in projects for private gain.
- c. Legislative student organizations must be officially sponsored by the University.
- d. Sponsored student organizations must comply with all applicable fiscal and accounting procedures of the University of Texas at Austin.

## Subchapter 6–300. Rights and Duties

### Sec. 6–301. Recognition and Activities

A registered student or a sponsored student organization is entitled

1. to be listed as a registered student or sponsored student organization;
2. to reserve the use of University facilities under subchapter 10–200 of the *Institutional Rules*;
3. to raise funds or make other permissible solicitations on University property under section 13–205 of the *Institutional Rules*;
4. to distribute literature under subchapter 13–400 of the *Institutional Rules*;
5. to post signs under section 13–500 of the *Institutional Rules*;
6. to hang banners under section 13–504 of the *Institutional Rules*;
7. to set up A-frames under section 13–505 of the *Institutional Rules*;
8. to set up a table under subchapter 13–600 of the *Institutional Rules*;
9. to set up exhibits under subchapter 13–700 of the *Institutional Rules*;
10. to use amplified sound under subchapter 13–800 of the *Institutional Rules*;
11. to publicly assemble under subchapter 13–900 of the *Institutional Rules*;
12. to present a guest speaker on University property in accordance with subchapter 13–1000 of the *Institutional Rules*;
13. to apply for storage;

14. to apply for recognition and awards; and
15. to access event coordination consultations.

### Sec. 6–302. Obligations

- a. In addition to completing registration annually, registered and sponsored student organizations must meet these requirements in order to maintain their student organization status. The student organization shall
1. maintain a complete and accurate roster of no fewer than 10 members, including three officers;
  2. conduct its affairs in accordance with local, state, and federal laws, the Regents' *Rules and Regulations*; and
  3. file with the dean of students a final report, fully disclosing the sources and amounts of money obtained from solicitations during the preceding semester or summer session, and any other information required by the dean of students about solicitation activities during the preceding semester within thirty days after the beginning of each long semester, as defined in the Regents' *Rules and Regulations*, Rule 80103, Number 2, Section 4.
- b. A registered student organization that is granted recognition from Sorority and Fraternity Life in the Office of the Dean of Students is subject to additional policies administered by Sorority and Fraternity Life.
- c. No registered student or sponsored student organization may re-register or use the facilities of the University as long as it owes a monetary debt to the University and the debt is considered delinquent by the crediting University agency.
- d. A registered student or sponsored student organization may be subject to discipline by the University under subchapters 6-400 and 6–500 for violating a Regents' *Rule*, University regulation, or administrative rule.

## Subchapter 6–400. Student Organization Discipline

### Sec. 6–401. Administration by Dean of Students

The dean of students has primary authority and responsibility for the administration of student organization discipline. The dean of students works cooperatively with faculty members, staff members, hearing officer(s) or the Student Conduct Board in the disposition of *Institutional Rule* violations.

### Sec. 6-402 Other General Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Advisor" means a single individual whom an accused registered student or sponsored student organization may elect to accompany them to a meeting with the dean of students or a hearing regarding an alleged violation of University policy. The accused student organization is solely responsible for presenting its case during the disciplinary process. An advisor may confer with and advise the accused student organization but may not advocate for the student organization in a meeting with the dean of students or in a hearing or directly address the Student Conduct Board or hearing officer. If an advisor is directly related to a disciplinary case or if the advisor's presence poses a conflict of interest, the dean of students or hearing officer may dismiss the advisor from the meeting or hearing. Advisors may be dismissed from any disciplinary proceedings if they disrupt the process. If an advisor is an attorney, then the dean of students may also be accompanied by an attorney.
2. "Appellate officer" means a person designated by the president to issue final decisions in a student organization disciplinary matters.

3. "Complainant" means a person who is reported to be the victim of prohibited conduct related to a Track C case.
  4. "Disciplinary decision" means a written decision as to whether an accused registered student or sponsored student organization has committed a violation of a Regents' *Rule*, University regulation, or administrative rule. The disciplinary decision includes the findings of fact in support of the decision along with the assessed sanction or sanctions, if any.
  5. "Disciplinary record" means an administrative record maintained by the dean of students in connection with a registered student or sponsored student organization's violation or alleged violation of a Regents' *Rule*, University regulation, or administrative rule. The disciplinary record may include hearing records, disciplinary decisions, and other documents required under this chapter or deemed relevant by the dean of students.
  6. "Hearing officer" means a person appointed by the president of the University to conduct hearings of alleged violations of a Regents' *Rule*, University regulation, or administrative rule.
  7. "HOP 3-3031 Track C cases" or "Track C cases" refers to allegations of conduct that potentially constitutes Sex Discrimination, Sexual Exploitation, Unprofessional/Inappropriate Conduct, Retaliation, False Information or False Complaint, and Interference with Grievance Process, as defined in HOP 3-3031. These cases are investigated by the Investigations Unit in University Compliance Services and referred to the dean of students for discipline decision. Notwithstanding this Rule's provisions, for allegations covered under Handbook of Operating Procedures 3-3031 Track A and Track B, initiation of the grievance process, investigation, hearing, any discipline determination, and appeal will be according to HOP 3-3031's provisions, which control for such allegations.
  8. "Interim disciplinary action" means an indefinite period of time when a registered or sponsored student organization is required to cease and desist from engaging in specific activities outlined by the dean of student, while the University investigates the matter(s).
  9. "Respondent" means the organization reported to be the alleged perpetrator of conduct related to a Track C case.
  10. "Student Conduct Board" (SCB) means the entity or group of persons composed primarily of students, who along with faculty and/or staff, are appointed by the president, as provided in this chapter, to conduct hearings and issue decisions concerning the prohibited conduct of student organizations. The SCB shall not hear matters pertaining to Track C cases or cases involving actual or threatened violent conduct against a person. A member of the SCB may not conduct a hearing or issue decisions for any accused student organizations where they are currently or previously have been members of the accused student organization.
- B. Student candidates for membership shall be recommended by a selection committee appointed by the Vice President of Student Affairs. The president will appoint the student members of the SCB upon the recommendation of the selection committee.
  2. Hearing officer(s) are full time faculty or staff members.
    - b. **Chair.** The chair of the SCB shall be appointed by the Vice President for Student Affairs.
    - c. **Panels.** The SCB will act through panels appointed ad hoc for each hearing. Each panel shall be composed of five members or three members: four student members and one faculty/staff member, or two student members and one faculty/staff member. The panel foreperson will be selected by the SCB chair.
    - d. **Quorum.** A quorum of the SCB is a majority. A quorum of a panel of the SCB is a total of three SCB members. This panel quorum will be at least two students and one faculty/staff member.
    - e. **Jurisdiction.** The SCB shall only hear matters concerning allegations of academic dishonesty, general misconduct, and certain prohibited conduct of student organizations. The SCB shall not hear matters pertaining to Track C cases or cases involving actual or threatened violent conduct against a person. Hearing officer(s) can hear all of the same case categories as the SCB and will address violent conduct cases and/or Track C cases that fall under HOP 3-3031.

### Sec. 6-404 Prohibited Conduct of Student Organizations

Notwithstanding any action taken on account of the violation by civil authorities or agencies charged with the enforcement of criminal laws, the dean of students may initiate disciplinary proceedings under subchapter 6-500 against a registered or sponsored student organization that:

- a. **Local, State, or Federal Law Violations** - engages in conduct that may violate any provision of federal, state, or local laws, whether or not the violation occurs on University property or in connection with any University-oriented activity;
- b. **Firearms and Dangerous Materials** - possesses, uses, or displays firearms, facsimile firearms, ammunition, explosives, or other weapons on property owned or controlled by the University, without written permission from the dean of students, unless authorized by federal, State or local laws; or, violates Policy 8-1060, Campus Carry, of the Handbook of Operating Procedures;
- c. **Harmful Behavior** - behaves in a manner that threatens or endangers the health or safety of any student or employee of the University, or of visitors on the campus;
- d. **Sex or Gender Based Harassment** - violates the University's prohibition of sex discrimination, sexual harassment, sexual assault, interpersonal violence (including domestic violence and dating violence) and stalking as contained in HOP 3-3031;
- e. **Theft** - takes property of the University, property belonging to any student or employee of the University, or property of a visitor on the campus;
- f. **Hazing** - violates the University's prohibition of hazing as contained in Chapter 14 of the *Institutional Rules*;
- g. **Alcohol Misconduct** - engages in unauthorized use or possession of alcoholic beverages in a University classroom building, laboratory, auditorium, library building, museum, faculty or

### Sec. 6-403 Hearing Officer and Student Conduct Board

Hearing Officers and the Student Conduct Board (SCB) will be appointed in accordance with procedures established by the Vice President for Student Affairs. The Vice President for Student Affairs may appoint an individual or an office to coordinate the work of the hearing officer(s) and SCB. The selection and training of both bodies is under the authority of the president's office and facilitated by the Vice President for Student Affairs.

#### a. **Composition.**

1. The SCB is composed of students, faculty and staff members.
  - A. Student members must be currently enrolled in the University and cannot be an executive officer of any legislative student organization.

administrative office, intercollegiate or intramural athletic facility, residence hall, or any other campus area (see Regents' *Rules and Regulations*, Rule 80102 for more information); or engages in the improper use, possession, or consumption of alcoholic beverages, including but not limited to underage possession of alcohol, underage consumption of alcohol, providing alcohol to a minor, public intoxication, minor driving under the influence of alcohol, driving while intoxicated;

**h. Illegal Drug Use and/or Possession** - engages in the use, possession, or sale of an illegal drug or narcotic, or possession of drug paraphernalia;

**i. Individual and/or Unauthorized Group Disturbance** - engages in speech, including but not limited to verbal, electronic, or written communication, that is directed to inciting or producing imminent lawless action and is likely to incite or produce such action;

**j. Unauthorized Access to Artificial Bodies of Water and/or Damage to Other Property** - enters, walks, runs, lies, plays, remains, or is in the water of any fountain or other artificial body of water on the University campus that is not designed and maintained for recreational or therapeutic purposes; dumps, throws, places, or causes to be placed any material, object, trash, person, animal, waste, or debris in the water of any fountain or other artificial body of water located on the University campus; or damages, defaces, or removes any portion of any fountain, monument, building, statue, structure, facility, tree, shrub, or memorial located on the University campus (see Regents' *Rules and Regulations*, Rule 80110 for more information);

**k. Other Harassment under Subsection 13-204 of the Institutional Rules (Speech, Expression, and Assembly) or HOP 3-3020** - engages in harassment (p.       );

**l. Unauthorized Use of Institutional Property** - engages in unauthorized use of property, including keys, equipment, resources, supplies, buildings, or facilities owned or controlled by the University or The University of Texas System, including unauthorized entry into property, buildings, or facilities owned or controlled by the University or The University of Texas System;

**m. Unauthorized Use of Institutional Technology** - engages in an inappropriate or disproportionate use of an information technology resource owned or controlled by the University or The University of Texas System or uses an information technology resource for an illegal, threatening, or intentionally destructive purpose; prohibited conduct includes, but is not limited to, circumventing system or network security, committing copyright infringement, transmitting unsolicited e-mail, sharing a University-issued password, falsifying an e-mail header, and using resources for personal financial gain or profit;

**n. Stalking** - A course of conduct directed at a specific person that would cause a reasonable person to fear for the person's safety or the safety of others or would cause that person to suffer substantial emotional distress. A "course of conduct" means two or more acts in which a person directly, indirectly or through third parties, by any action, method, device or means, follows, monitors, observes, surveils, threatens or communicates to or about a person or interferes with a person's property. "Reasonable person" means a reasonable person under similar circumstances and with similar identities to the person who experienced the reported stalking. "Substantial emotional distress" means significant mental suffering or anguish that may, but does not necessarily, require medical or other professional treatment or counseling. (Please note that

Stalking here in 6-404(n) is separate from the Stalking rule included in HOP 3-3031);

**o. Gambling** - engages in or offers games of chance for money or other gain in violation of Texas Law;

**p. Providing False and Misleading Information**

1. Engages in the falsification of academic records, including but not limited to altering or assisting in the alteration of any official record of the University or The University of Texas System and submitting false information or omitting requested information that is required for or related to any academic record of the University or The University of Texas System. Academic records include, but are not limited to, applications for admission, the awarding of a degree, registration materials, grade change forms, and reporting forms used by the Office of the Registrar. A former student who engages in such conduct is subject to a bar against readmission, revocation of a degree, and withdrawal of a diploma; or,

2. Furnishes false information to or withholds material information from any University official, faculty member, or staff member acting in the course of his or her duties; or,

3. Alters or assists in the alteration of any official nonacademic record or document, including parking permits and athletic tickets, of any University office or of The University of Texas System.

**q. Privacy Violation** - engages in surveillance or recording of any type without the subject's knowledge or consent in areas where there is a reasonable expectation of privacy and/or the broadcasting or distribution of such material including sexual exploitation as defined under Handbook of Operating Procedures 3-3031(VII)(B);

**r. Disruptive Conduct**

1. Engages in conduct that interferes with or disrupts the student learning or teaching function of the University; or,

2. attempts to commit any violation of University rules or regulations, or to assist another person or persons in committing any violation of University rules or regulations; or,

3. behaves in a manner that impedes, interferes with, or disrupts any University teaching, research, administrative, disciplinary, public service, learning, or other authorized activity; and

4. that is not otherwise constitutionally protected speech.

**s. Failure to Comply**

1. Any person on any property of the University to refusing to identify himself or herself to an institutional representative in response to a request must identify himself or herself by giving his or her name and complete address, substantiated by a current driver's license, voter registration card, or other official documentation, and by stating truthfully whether or not he or she is a student or employee of the University. An institutional representative includes any member of the Board of Regents; any executive officer or administrative officer of the system; any administrative officer of the University; and any attorney, peace officer, or security officer of The University of Texas System or the University acting pursuant to the authority of Texas law. See Regents' *Rules and Regulations*,

Rule 80101, Number 2, Sections 3 and 4 for more information; or,

2. It is a violation to engage in action that interferes with or obstructs the student disciplinary process. This includes, but is not limited to, failing to appear for a meeting when summoned by letter or e-mail to do so, failing to appear at or testify at a hearing, attempting to intimidate, harass, or unduly influence a potential witness or complainant, failing to timely complete educational outcomes assigned through the Restorative Practices Alternative under HOP 3-3031, and failing to complete disciplinary or administrative sanctions; or,

3. Refuses to identify one's self to a University official, faculty member, or staff member acting in an official capacity; or,

4. Engages in any prohibited conduct while suspended for disciplinary reasons.

t. **Retaliation** - Retaliation against a person who reports a potential violation under the institutional rules, assists someone with a report of a violation, or participates in any manner in an investigation or in the resolution of a complaint made under the institutional rules is strictly prohibited and will not be tolerated. Retaliation includes but is not limited to threats, intimidation, reprisals and/or adverse actions related to an individual's employment or education. The University will take appropriate steps to assure that a person who in good faith reports, complains about, or participates in an investigation pursuant to this institutional rule will not be subjected to retaliation. Individuals who believe they are experiencing retaliation are strongly encouraged to file a complaint with the University.

u. **Violent Conduct** - use or attempted use of excessive force or brutality against another person.

v. **Animal Cruelty** - engages in conduct with an animal that may violate any provision of federal, state, or local laws, whether or not the violation occurs on University property or in connection with any University-oriented activity;

w. **University System and Institutional Violations** - Any person who violates any provision of the Regents' *Rules and Regulations of The University of Texas System*, the rules and regulations of the University (including but not limited to administrative rules of campus offices), or specific instructions issued by an administrative official acting in the course of his or her authorized duties, is subject to disciplinary sanction.

x. **Financial Misconduct** - The writing of checks on accounts with insufficient funds, issuance of stop pays, disputed credit card chargebacks, or the nonpayment or delinquent payment of outstanding loans, purchases from campus stores, or failure to meet any other financial obligations to the University.

y. **Property Damage** - damages, defaces, destroys, or tampers with property of the University, property belonging to any student or employee of the University, or property of a visitor on the campus.

should be submitted to the dean of students and then will be kept in the official registered student or sponsored student organization files maintained by the dean of students. The dean of students retains the authority to modify any discipline issued by an academic or administrative unit; the authority to modify a discipline includes the authority to impose further sanctions.

- b. A registered student or sponsored student organization violates a Regents' *Rule*, University regulation, administrative rule, city ordinance, or state or federal law when
1. one or more of its officers or authorized representatives acting in the scope of their organizational capacities commit a violation;
  2. one or more of its members commit a violation and the action that constitutes the violation was approved by majority vote of those members of the student organization present and voting;
  3. one or more members of a committee of the student organization commit a violation while acting in the scope of the committee's assignment;
  4. a member of the student organization commits a violation while acting with apparent authority of the registered student or sponsored student organization;
  5. one or more members of the student organization or its officers permit, encourage, aid, or assist any of its members in committing a violation;
  6. one or more members of the student organization or its officers, under circumstances where such persons knew or should have known that an action constituting a violation was occurring or about to occur, fails to prevent that action; or
  7. one or more members of the student organization fail to report to appropriate University or civil authorities promptly their knowledge or any reasonable information about a violation.
- c. When the dean of students receives information that a registered student or sponsored student organization has allegedly violated a Regents' *Rule*, University regulation, administrative rule, city ordinance, or state or federal law, the alleged violation will be preliminarily investigated. Upon completing the preliminary investigation, the dean of students may:
1. dismiss the allegation as unfounded or otherwise conclude the investigation; or
  2. pursue a conference resolution as described in section 6-503; or
  3. pursue an administrative resolution as described in subsection 6-505(d).
- d. University disciplinary action will be based upon the "Preponderance of Evidence" standard. This standard is satisfied if the action is deemed more likely to have occurred than not.
- e. If the dean of students establishes the preponderance of evidence and determines that there are reasonable grounds for proceeding with the disciplinary process, the dean of students may elect to proceed with the case through either a conference resolution or an administrative resolution. The decision to proceed under a conference or an administrative resolution is at the sole discretion of the dean of students and may be made at any point during the disciplinary process.
- f. Notwithstanding any other provision of this chapter, the dean of students or the president of the University may take immediate disciplinary action against a registered student or sponsored student organization that violates a rule or regulation of the University or The University of Texas System when, in the opinion of the official, the interest of the University or The University of Texas System would be served by interim action. The dean of students will notify the authorized representative(s) of the accused registered student or sponsored student organization by letter or by e-mail of the disciplinary decision. The dean of students may send the notice to any authorized representative of the registered student or sponsored

## Subchapter 6-500. Disciplinary Procedures

### Sec. 6-501. Initiation of Disciplinary Proceeding

- a. The dean of students has primary authority and responsibility for the administration of registered student and sponsored student organization discipline. Any act by an academic or administrative unit that could reasonably be construed as a discipline against a registered student or sponsored student organization must afford sufficient process consistent with University policy; such decisions

student organization. A letter or an e-mail message sent to an authorized representative at an address listed in the registrar's records will constitute full and adequate notice. A letter will be considered to have been received on the third day after the day of mailing. An e-mail message will be considered to have been received on the second day after the day of sending the message.

### Sec. 6–502. Investigation

- a. An investigation is an administrative process by which the dean of students gathers information related to the allegation of a violation of a Regents' *Rule*, University regulation, administrative rule, city ordinance, or state or federal law. The investigation may include but is not limited to, summoning authorized representatives and members of the accused registered student or sponsored student organization; requesting documents from the student organization; reviewing organizational records; reviewing information received by off-campus persons or organizations, including law enforcement; reviewing information received by an academic or administrative unit; and calling witnesses.
- b. Searches of organization-occupied or organization-controlled premises or of an organization's possessions will be conducted only as authorized by law.
- c. Registered student and sponsored student organizations that fail to respond to meeting requests from the dean of students may be subject to interim disciplinary action as described in subsection 6-501(f); interim disciplinary action includes but is not limited to restrictions of privileges.
- d. If the dean of students calls a meeting with a student during an investigation, the student may be accompanied by an advisor. The student must give the dean of students twenty-four hours' notice that the advisor will attend the meeting.
- e. Allegations of conduct assigned to Track C under HOP 3-3031 will be investigated in accordance with the procedures described in HOP 3-3031 and referred to the dean of students for disciplinary decision. At the discretion of the dean of students and in coordination with the Title IX Coordinator, Track C allegations may be resolved through that Restorative Practices Alternative in [HOP 3-3031](#) rather than a formal investigation process.
- f. During a Track C case investigation, the dean of students has the authority to enact interim measures to minimize contact between the involved parties, including but not limited to the issuance of a no contact directive.

### Sec. 6–503. Conference Resolution

- a. Either during an investigation or afterwards, the dean of students may contact the authorized representative(s) of the accused registered student or sponsored student organization for a conference at which the student organization may respond to the charges. If the authorized representative(s) fail to respond, or if the dean of students determines that a conference resolution is not appropriate under the circumstances, then the administrative resolution process may be initiated.
- b. An outcome that may result in suspension or expulsion is not eligible for conference resolution.
- c. The dean of students retains the right to issue warning letters without a disciplinary conference.
- d. After hearing the accused student organization's response to the allegation, the dean of students will either
  1. dismiss the allegation; or
  2. determine that a violation has occurred and recommend a sanction as described in section 6–507.

- e. A student organization that receives a sanction in a conference resolution has the right to appeal the decision as described in section 6–508.

### Sec. 6–504. Administrative Resolution: Summoning a Student Organization

- a. The dean of students may summon the authorized representative(s) of the accused registered student or sponsored student organization to appear in connection with an alleged violation by sending a message to the student by letter or by e-mail at an address listed in the registrar's records.
- b. The message will direct the student(s) to appear at a specific time and place at least three days after the date of the message if the message is sent by letter, or at least two days after the date of the message if the message is sent by e-mail. In Track C cases, the dean has the right to summon the student(s) at least one day after the date of the message.
- c. The dean of students may impose one or more of the sanctions under section 6–507 against the accused registered student or sponsored student organization if a member, officer, or authorized representative of the student organization fails without good cause to comply with a summons sent under subsection 6–504(a). A letter sent to an address listed in the registrar's records, a letter hand-delivered to the student, or an e-mail message sent to the address listed in the registrar's records will constitute full and adequate notice. The student's failure to provide and to maintain current addresses, refusal to accept delivery of a letter, or failure to receive an e-mail message because the mailbox is full or the message is inappropriately forwarded will not constitute good cause for failure to comply with the summons. (Policies on the use of e-mail for official correspondence are given in [Appendix M](#) (p. 159).)
- d. A student may also be subject to discipline under chapter 11 of the *Institutional Rules* for failure to respond to a summons issued under this section.

### Sec. 6–505. Administrative Resolution: Notice of Findings and Disciplinary Decision

- a. Upon completion of the investigation under section 6–502, the dean of students will share the findings of the investigation with the authorized representative(s) of the accused registered student or sponsored student organization.
- b. The dean of students will notify the authorized representative(s) by letter or by e-mail of the specific time and place to discuss the findings of the investigation and disciplinary decision. The dean of students may send the notice to any authorized representative of the accused registered student or sponsored student organization. A letter or an e-mail message sent to an authorized representative at an address listed in the registrar's records will constitute full and adequate notice.
- c. The dean of students will inform the authorized representative(s) that there are two options to resolve the disciplinary matter. The authorized representative(s) will have ten days to select one of the two options and to notify the dean of students by letter or by e-mail of their choice:
  1. The dean of students retains the right to determine if the registered or sponsored student organization may enter into a written, mutual resolution agreement with the dean of students as provided in section 6-506; or
  2. the dean of students will provide a disciplinary decision that includes a sanction or sanctions pursuant to section 6–507.
- d. If, without good cause as determined by the dean of students, the authorized representative(s) fail to choose an option for resolving the disciplinary matter in accordance with subsection 6–505(c), the registered student or sponsored student organization waives its right

to enter into a written agreement to address student organization conduct.

- e. If the authorized representative(s) choose to enter into a written agreement with the dean of students as described in subsection 6–505(c)(1), the authorized representative(s) and the dean of students will have thirty days to develop and sign a mutually acceptable agreement. The thirty-day period will begin when the authorized representative(s) notify the dean of students that they choose to enter into a written agreement. At the discretion of the dean of students, the thirty-day deadline may be extended for a period not to exceed an additional thirty days.
- f. The dean of students will render a disciplinary decision as described in subsection 6–505(c)(2) if
  1. the authorized representative(s) do not choose the option described in subsection 6–505(c)(1) of entering into a written agreement with the dean of students;
  2. the authorized representative(s) fail to choose either of the options described in subsection 6–505(c); or
  3. the authorized representative(s) and the dean of students are unable to develop a written agreement as described in subsection 6–505(c)(1) that is acceptable to both parties, when applicable.
- g. The disciplinary decision of the dean of students will include any sanction or sanctions pursuant to section 6–507 that are appropriate to the charges and to the accused registered student or sponsored student organization's disciplinary record, if any.
- h. The dean of students will share the disciplinary decision with the authorized representative(s) of the accused registered student or sponsored student organization. The decision will
  1. concisely describe the dean of students' findings of fact regarding the allegation;
  2. state the sanction or sanctions imposed, if any; and
  3. if any violation is found or any sanction or sanctions imposed, advise the authorized representative(s) of their resolution options and right to appeal in accordance with section 6–508.
- i. In Track C cases, the dean of students, subject to the Family Educational Rights and Privacy Act (FERPA) and other applicable law, shall:
  1. proceed to resolve the matter before a hearing officer unless both the accused student organization and the complainant agree to waive the hearing procedures in accordance with sections 6-503(c), 6-504, and 6-505.
  2. inform the accused student organization, and complainant, if applicable, as to any disposition of the case or if the accused student organization or complainant has chosen to proceed to a hearing.

### Sec. 6-506. Mutual Resolution Agreement

- a. In pursuit of a Mutual Resolution Agreement, the dean of students and the registered or sponsored student organization will work together to resolve the disciplinary matter in a way that eliminates the behavior(s), and prevents its recurrence, within the practice and culture of the organization.
- b. The result of this resolution process is an agreement between the registered or sponsored student organization and the university intended to restructure and rehabilitate the conduct and practices of the organization through the completion of specified terms and conditions, which may include sanctions as outlined in section 6-507.
- c. This agreement will last for a specified period of time, during which the registered or sponsored student organization will be granted conditional registration. This conditional registration may be terminated if the organization is found in violation of any university policies as

outlined in the Institutional Rules, or if the organization fails to comply with the terms and conditions of the agreement.

### Sec. 6–507. Sanctions

- a. A student may be disciplined for a violation under chapter 11 of the *Institutional Rules* even though the registered student or sponsored student organization of which the student is a member is disciplined under subchapter 6–500 for the same violation or for a violation growing out of the same factual transaction.
- b. The dean of students, acting pursuant to section 6–501, the hearing officer, or student conduct board, after a hearing under subchapter 6–500, may impose one or more of the following sanctions on an accused registered student or sponsored student organization for violation of a Regents' *Rule*, University regulation, or administrative rule:
  1. "Written warning" means that the authorized representatives of the registered or sponsored student organization have been notified that the organization has engaged in behavior that violated a rule or regulation of The University of Texas System or the University. The dean of students may impose conditions related to the offense to address the behavior that led to the violation. Further violations may result in a minimum of probation for the organization.
  2. "Probation" means a specified period of time during which the registered or sponsored student organization is required to comply with specified terms and conditions to address the behavior that led to the violation. During this specified period of time, the dean of students may restrict one or more of the organization's rights, as listed in Section 6-300. Further violations may result in a minimum of suspension for the organization.
  3. "Deferred suspension" means that the conduct of the registered or sponsored student organization could have resulted in suspension, but the suspension is deferred for a period of observation and review. During the period of deferred suspension, the dean of students may restrict one or more of the organization's rights, as listed in Section 6-300. Further violations may result in a minimum of suspension for the organization.
  4. "Suspension" means a specified period of time during which the registered or sponsored student organization is prohibited from utilizing specified privileges, as listed in Section 6-300, and is required to comply with specified terms and conditions to address the behavior that led to the violation. Further violations may result in a minimum of cancellation for the organization.
  5. "Expulsion" means a permanent separation from the University and prohibits the registered or sponsored student organization from university recognition. This status results in the automatic loss of all rights and privileges associated with University recognition; or
  6. impose another sanction or sanctions deemed appropriate under the circumstances.
- c. The dean of students, the hearing officer, or student conduct board may impose terms and conditions, including education outcomes/sanctions, related to the offense, and failure to meet the terms and conditions will be considered an additional violation.

### Sec. 6–508. Options Following a Disciplinary Decision Issued by the Dean of Students

- a. A registered student or sponsored student organization that has not had its registration suspended or canceled may appeal the disciplinary decision assessed by the dean of students under subsection 6–507(b) to the appellate officer as dictated by section 6-517.
- b. A registered student or sponsored student organization that has had its registration suspended or canceled may appeal the disciplinary

decision assessed by the dean of students under subsection 6-507(b) to the appellate officer as dictated by section 6-517, or request a formal hearing before a University hearing officer or student conduct board as dictated by section 6-509.

- c. A registered student or sponsored student organization that has had its application for registration denied by the dean of students under subsection 6-205(b) may appeal to the appellate officer as dictated by section 6-517.
- d. Notice of appeal timely given suspends the imposition of the sanction or sanctions until the appeal is finally decided, but interim action may be taken as authorized under subsection 6-501(f).

### **Sec. 6-509. Appeal to a Hearing Officer or Student Conduct Board**

To appeal a disciplinary decision of suspension or cancellation of registration issued under section 6-507 to a hearing officer or student conduct board, the authorized representative(s) of the accused registered or sponsored student organization must submit a written appeal to the dean of students. The appeal must be submitted by letter or by e-mail within ten days from the date on which the dean of students discussed the disciplinary decision with the authorized representative(s). The appeal must state the name of the registered student organization, the date the decision was shared, and specific reasons for the appeal, including any related argument.

### **Sec. 6-510. Hearing Officer or Student Conduct Board**

- a. The hearing officer or student conduct board will preside over the hearing and will
  - 1. determine whether the dean of students has satisfied the requirements of section 6-511;
  - 2. determine whether hearing observers may be present; hearing observers will be limited to people attending the hearing for University training purposes;
  - 3. rule on the admissibility of evidence and on objections to the procedure during the hearing;
  - 4. facilitate the hearing process, which includes the authority to remove anyone from the hearing who is disrupting the process;
  - 5. issue a written decision that identifies the finding of fact and determination as to whether a student organization is responsible or not for a policy violation;
  - 6. assess a sanction or sanctions; and
  - 7. provide the authorized representative(s) of the accused registered student or sponsored student organization and its sponsoring department and the dean of students with a copy of the decision.
- b. The authorized representative(s) of the accused registered student or sponsored student organization may challenge the hearing officer or student conduct board on the basis of an alleged lack of fairness or objectivity, but they are not entitled to disqualify that person from serving. It will be up to the challenged person to determine whether he or she can serve with fairness and objectivity. If the challenged person disqualifies himself or herself, another hearing officer or student conduct board member will be appointed.

### **Sec. 6-511. Notice of Hearing**

- a. The dean of students will notify the authorized representative(s) of the accused registered student or sponsored student organization and its sponsoring department by letter or by e-mail of the date, time, and place for the hearing. The notice will be sent to each authorized representative at an address listed in the registrar's records. Policies for the use of e-mail for official correspondence are given in Appendix M.

- b. The notice will specify a hearing date at least ten days after the date the letter or e-mail message is received, unless the accused registered student or sponsored student organization has requested an earlier date as allowed by subsection 6-511(c).
- c. The authorized representative(s) of the accused registered student or sponsored student organization may request, in writing, that an earlier hearing date be set if feasible to arrange. The hearing officer or student conduct board for good cause may postpone the hearing, and he or she will notify the dean of students and the authorized representative(s) of the new hearing date. An authorized representative's failure to provide and to maintain current addresses, refusal to accept delivery of a letter, or failure to receive an e-mail message because the mailbox is full or the message is inappropriately forwarded will not constitute good cause for failure to comply with the notice. (Policies on the use of e-mail for official correspondence are given in [Appendix M](#) (p. 159).)
- d. Notice sent under subsection 6-511(a) will
  - 1. state the time, date, and place for the hearing;
  - 2. advise the authorized representative(s) of their rights
    - A. to have an advisor at the hearing;
    - B. to challenge the objectivity of the hearing officer or the members of the SCB panel designated to hear the charges;
    - C. to know the identity of each witness who will participate in the hearing;
    - D. to present documentation and other supporting information, and to argue on the registered student or sponsored student organization's behalf;
    - E. to question each witness who appears at the hearing and testifies; and,
    - F. to appeal under section 6-518;
  - 3. contain the name of the hearing officer or the names of the SCB panel appointed to hear the matter;
  - 4. contain the names of witnesses who may testify against the accused registered student or sponsored student organization and a brief summary of the testimony to be given by each;
  - 5. contain a list of documentation that will be presented during the hearing;
  - 6. contain a copy of the disciplinary decision by the dean of students; and
  - 7. notify the authorized representative(s) of the accused registered student or sponsored student organization that, if the student organization is advised by an attorney at the hearing, then the dean of students may be advised by an attorney at the hearing. An advisor may confer with and advise the dean of students or the authorized representative(s) but will not be permitted to question witnesses, introduce evidence, make objections, or present arguments to the hearing officer or student conduct board.
- e. An authorized representative's failure to provide and to maintain current addresses, refusal to accept delivery of a letter, or failure to receive an e-mail message because the mailbox is full or the message is inappropriately forwarded will not constitute good cause for failure to comply with a notice sent under this section.
- f. In situations where all of the authorized representatives of the accused registered student or sponsored student organization fail to attend a scheduled hearing, the hearing officer or student conduct board will determine if the dean of students provided notice per 6-511 and will hold the hearing without the student organization's participation. If the hearing proceeds in the absence of the accused student organization, the hearing will be conducted according to the provisions of 6-513(a) with the final decision issued by the hearing officer or student conduct board as dictated by 6-515. Even

in situations where no authorized representatives from the registered student or sponsored student organization attend the hearing, the hearing officer or student conduct board's decision may be appealed under Section 6-518.

### **Sec. 6–512. Preliminary Matters for a Hearing**

- a. The authorized representative(s) of the accused registered student or sponsored student organization must furnish the dean of students with a list of any witnesses who may testify on behalf of the registered student or sponsored student organization, including a summary of each witness's testimony, and provide any supporting documentation for use in the hearing at least 3 days in advance of the proceeding. If the student organization has an advisor, the name of the advisor and the advisor's relationship to the student organization must also be provided with the other preliminary information.
- b. At least five days before the hearing date, the authorized representative(s) of the accused registered student or sponsored student organization will furnish the hearing officer with
  1. any objection that, if sustained, would postpone the hearing; and
  2. the name of the advisor(s), if any, who will appear with the authorized representative(s), and the relationship of the advisor(s) to the authorized representative(s).
- c. At least two days before the hearing date, the dean of students will provide the authorized representative(s) of the accused student organization with access to documents that may be introduced at the hearing.
- d. The authorized representatives of the accused student organization may request a hearing postponement to the dean of students. The authorized representatives must provide a compelling reason for the requested postponement, including, but not limited to, a procedural error, an emergency situation, or a documented academic impact that would prevent the authorized representatives from participating. The dean of students will determine whether or not a postponement will be granted, and if possible based upon the timing of the request, will notify all parties of the decision as soon as possible.

### **Sec. 6–513. Hearing Procedure**

- a. The dean of students establishes the hearing procedure. This procedure will be provided to the authorized representatives in advance of the hearing. The hearing procedure will include the following:
  1. statement of the allegations;
  2. review of student organization rights in the process, including the standard of evidence;
  3. a presentation of the case and summary of investigation by the dean of students;
  4. calling of witnesses by the dean of students;
  5. the authorized representative(s) will have the opportunity to make an opening statement and present their witnesses and supporting information;
  6. the authorized representative(s), dean of students and the hearing officer or SCB may all ask questions of each witness presented;
  7. the dean of students and the authorized representative(s) are given the opportunity to present rebuttal evidence and argument;
  8. the dean of students and the authorized representative(s) are given the opportunity to present a recommendation on a sanction or sanctions;
  9. the dean of students and the authorized representative(s) are given the opportunity to present a closing statement;

10. the hearing officer or a majority of the panel of the SCB decides whether a violation has occurred and assesses a sanction or sanctions in accordance with section 6–507; and
11. the hearing officer or student conduct board informs the authorized representative(s) of the registered student or sponsored student organization's right to appeal to the appellate officer.

### **Sec. 6–514. Evidence in Hearings**

- a. Legal rules of evidence do not apply to university hearings for alleged violations of institutional rules.
- b. The standard of evidence in all university hearings is preponderance of the evidence.
- c. During the hearing, the hearing officer or SCB panel may admit and give effect to evidence, including testimony and documentary evidence. The hearing officer or the foreperson of the SCB panel will exclude irrelevant, immaterial, and unduly repetitious evidence. All evidence admitted during the hearing will be made a part of the record.
- d. Upon a hearing of the allegations, the student conduct representative has the burden of going forward with the evidence and the burden of proving the charges by the preponderance of evidence.
- e. A witness will testify unless the testimony is privileged as recognized by law or is excluded by the hearing officer or student conduct board. If a witness refuses to testify based upon a privileged relationship recognized by Texas law, the hearing officer or student conduct board may require evidence of the relationship and/or seek legal counsel before making a decision on the assertion of privilege, even if such would require postponing the hearing.
- f. The hearing officer or a majority of the SCB panel will decide whether a violation has occurred and assess an appropriate sanction or sanctions solely on the basis of admitted evidence. The accused registered student or sponsored student organization's disciplinary record is deemed admitted into evidence during a hearing to help the hearing officer or the SCB panel assess an appropriate sanction or sanctions.

### **Sec. 6–515. Disciplinary Decision of the Hearing Officer or Student Conduct Board**

The hearing officer or the majority of the SCB panel will render a written decision as to whether the accused registered student or sponsored student organization has committed a violation and will set forth findings of fact in support of the decision. The sanction or sanctions will also be stated in the decision. The authorized representative(s) of the accused registered student or sponsored student organization and the dean of students will each be given a copy of the decision. The written decision is the official decision on the matter from which any appeal is taken. The hearing officer or the majority of the SCB panel should make every effort to complete the written decision within ten days of receiving the transcript of the hearing. If the hearing officer or the majority of the SCB panel is unable to issue the written decision within ten days of receiving the transcript, he or she (or in case of a SCB panel, the foreperson) should contact both the authorized representative(s) of the accused student organization and the dean of students to provide a date for completion of the written decision.

### **Sec. 6–516. Hearing Record**

The hearing record consists of

1. a copy of the notice required under section 6–511;
2. the recording of the hearing and/or the transcript, if any, together with all evidence admitted under section 6–514;

3. written motions and pleas; and
4. the disciplinary decision of the hearing officer.

**Sec. 6–517. Appeal of the Decision of the Dean of Students to the Appellate Officer**

- a. The authorized representative(s) of the accused registered student or sponsored student organization may appeal the disciplinary decision of the dean of students under section 6–507 directly to the appellate officer. The appeal, if any, must be submitted in writing to the appellate officer within ten days from the date on which the authorized representative(s) were notified of the disciplinary decision. If notice of the decision is sent by mail, the date the notice is mailed initiates the ten-day period. The written appeal must state the specific reasons for the appeal and must include any related argument. The authorized representative(s) must provide the dean of students with a copy of the appeal submitted to the appellate officer.
- b. The dean of students may submit a written response to the appeal to the appellate officer. The response, if any, must be submitted no later than ten days after the appellate officer received the accused registered student or sponsored student organization’s appeal. The dean of students must provide a copy of the response to the authorized representative(s) of the accused registered student or sponsored student organization. The dean of students’ submission of a response to the appeal will not extend the thirty-day period within which the action of the appellate officer will be communicated as outlined in subsection 6–519(b).
- c. The accused registered student or sponsored student organization’s appeal will be reviewed solely on the basis of the registered student or sponsored student organization’s disciplinary record, the written arguments of the authorized representative(s) of the registered student or sponsored student organization, and the written response to the appeal submitted by the dean of students.
- d. The accused registered student or sponsored student organization may only appeal a decision by the dean of students based only on one or more of the following grounds:
  1. Significant procedural error inconsistent with the processes as outlined in subchapters 6-500.
  2. Discovery of any new information unknown or not reasonably foreseeable to the accused registered student or sponsored student organization or the dean of students at the time of the decision that was material to and could have reasonably impacted the disciplinary decision.
  3. The sanction(s) determined by the dean of students, hearing officer, or SCB are significantly disproportionate to the violation.

**Sec. 6–518. Appeal of the Decision of the Hearing Officer or Student Conduct Board to the Appellate Officer**

- a. Either the authorized representative(s) of the accused registered student or sponsored student organization or the dean of students may appeal the disciplinary decision of the hearing officer or student conduct board rendered under section 6–515 by submitting a written appeal to the appellate officer. The appeal, if any, must be submitted within ten days from the date on which the appealing party was notified of the disciplinary decision. If notice of the disciplinary decision is sent by mail, the date the disciplinary decision is mailed initiates the ten-day period. The written appeal must state the specific reasons for the appeal and must include any related argument. If either party appeals the disciplinary decision, the appellate officer may request that the recording be transcribed; the transcript will be made available to both parties. If a court reporter was present during the hearing and prepares a written transcript

immediately thereafter, the transcript is considered part of the hearing record and is made available to both parties.

- b. If the accused registered student or sponsored student organization is the appellant, the authorized representative(s) of the student organization must provide the dean of students with a copy of the appeal submitted to the appellate officer on the same date that the appeal is submitted to the appellate officer. If the dean of students is the appellant, the dean of students will give, e-mail, or mail a copy of the appeal to the authorized representative(s) of the registered student or sponsored student organization on the same day that the dean of students submits the appeal to the appellate officer. If the copy of the appeal is mailed or e-mailed, the dean of students will send it to the authorized representative(s) at an address listed in the registrar’s records.
- c. Following the submission of the appeal to the appellate officer, the non-appealing party may submit a written response to the appellate officer. The response, if any, must be submitted no later than ten days after the appellate officer received the appeal. The non-appealing party must provide a copy of the response to the other party. The submission of a response to the appeal will not extend the thirty-day period within which the action of the appellate officer will be communicated as outlined in subsection 6–519(b).
- d. The appeal of the disciplinary decision of the hearing officer or student conduct board will be reviewed solely on the basis of the hearing record, the accused registered student or sponsored student organization’s disciplinary record, the written arguments of the appealing party, and the written response of the non-appealing party. The dean of students will submit the record from the hearing to the appellate officer as soon as it is available to the dean of students.
- e. The accused registered student or sponsored student organization or the dean of students may only appeal a decision by the hearing officer or student conduct board based only on one or more of the following grounds:
  1. Significant procedural error inconsistent with the processes as outlined in subchapter 6-500.
  2. Discovery of any new information unknown or not reasonably foreseeable to the accused registered student or sponsored student organization or the dean of students at the time of the decision that was material to and could have reasonably impacted the disciplinary decision.
  3. The sanction(s) determined by the hearing officer, or SCB are significantly disproportionate to the violation.

**Sec. 6–519. Appellate Officer’s Authority**

- a. The appellate officer may approve, reject, or modify the disciplinary decision in question or may require that the original decision be reopened for the presentation of additional evidence and reconsideration of the decision.
- b. The action of the appellate officer will be communicated in writing to the authorized representative(s) of the accused registered student or sponsored student organization and the dean of students within thirty days after the appeal has been received by the appellate officer. The decision of the appellate officer will be final.

Relates to *Handbook of Operating Procedures*, 3-3031.

Updated September 9, 2020. Edits include changes related to [HOP 3-3031 Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination](#), implementing new federal Title IX regulations that were issued in May 2020 and went into effect on August 14, 2020.

## Chapter 7. The Department of Recreational Sports

### Subchapter 7–100. General Provisions

#### Sec. 7–101. Purpose

The University of Texas at Austin seeks to promote and conduct officially organized sports activities and athletic recreation programs for men and women. The purposes of these programs are:

- a. to provide students at the University with an opportunity for interesting and rewarding sports competition and recreation;
- b. to present a varied program of sports and recreational activities so that every student has the opportunity to participate regardless of athletic ability;
- c. to provide a competitive, recreational, and instructional program for members of the faculty and staff; and,
- d. to present opportunities for use of recreational facilities to student spouses and dependents, spouses and dependents of faculty and staff members, Austin community members, and special guests of the University.

#### Sec. 7–102. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. “Student” means a person enrolled in residence at the University or a person accepted for admission or readmission to the University while that person is on the campus.
2. “University” means The University of Texas at Austin.
3. “Director” means the director of Recreational Sports.
4. “Department” means the Department of Recreational Sports.

### Subchapter 7–200. The Recreational Sports Committee

#### Sec. 7–201. Membership

- a. The Recreational Sports Committee has fifteen members. The members are:
  1. six members of the General Faculty, appointed by the president for two-year terms;
  2. two staff members, appointed by the president for two-year terms;
  3. two students, a male and a female, designated by the Councils of Recreational Sports and appointed by the president for one-year terms;
  4. two other students, a male and a female, designated by Student Government and appointed by the president for one-year terms;
  5. one staff member designated by the Non-Student Program and appointed by the president to serve as a member without vote for a one-year term; and,
  6. two members of the Faculty Council, appointed by the chair of the Faculty Council, for one-year terms.
- b. The director of Recreational Sports will serve as administrative advisor without vote.

#### Sec. 7–202. Duties of Committee

The Recreational Sports Committee will:

- a. advise on and approve matters of policy for the conduct of the department’s programs;
- b. hear appeals of decisions of the Intramural Sports Council and the University of Texas Sport Club Association Council; and,
- c. promulgate regulations designating the categories of persons who are entitled to participate in the Non-Student Programs.

#### Sec. 7–203. Quorum

A majority of the committee constitutes a quorum and a majority of the quorum rules.

#### Sec. 7–204. Appellate Jurisdiction

The committee may appoint subcommittees to hear appeals other than appeals from action taken under Sec. 7–301.

### Subchapter 7–300. Participation in Recreational Sports Programs

#### Sec. 7–301. Group Eligibility

- a. A group is eligible to participate in recreational sports programs if:
  1. its membership is not denied to anyone on any basis prohibited by applicable law, including but not limited to race, color, religion, national origin, gender, age, disability, citizenship, veteran status, sexual orientation, gender identity, or gender expression; and,
  2. it is not under a disciplinary sanction prohibiting participation.
- b. The application form for participating in recreational sports will set out the provisions of Sec. 7–301(a)(1). By submitting an application, a group affirms that it is in compliance with the policy against discrimination.

#### Sec. 7–302. Individual Eligibility

An individual is eligible to participate in recreational sports programs if he or she is not under disciplinary sanction prohibiting participation and if he or she meets the requirements of rules governing the specific recreational sports program.

#### Sec. 7–303. Reservation of Recreational Sports Facilities

- a. An individual or group eligible to participate in recreational sports programs may reserve facilities through the office of facility operations.
- b. The provisions of Subchapter 10–200 of the *Institutional Rules* do not apply to the use of recreational sports facilities for athletic purposes.

### Subchapter 7–400. Administration of Recreational Sports Programs

#### Sec. 7–401. The Director of Recreational Sports

- a. The director:
  1. will establish and maintain effective working relations with other University departments, with faculty and staff members, with students and student groups, and with outside groups and special services that utilize recreational sports facilities and programs;
  2. will formulate, plan, and administer, with the approval of the Recreational Sports Committee, the following kinds of programs:
    - A. a program of organized intramural competition in various sports;
    - B. a recreational program to provide leisure-time activities;
    - C. the outdoor recreation program;

- D. a faculty-staff competitive, recreational, and instructional program; and
  - E. the University of Texas Sport Club Association;
  - 3. will receive written complaints of Intramural Sports Honor Code violations and refer these complaints to the Intramural Sports Council for action;
  - 4. is responsible for developing program innovations in recreational sports, providing for program expansion, providing for acquisition of additional intramural sport and recreational facilities, and supervising program staff;
  - 5. is responsible for the maintenance, repair, use, and security of all facilities and equipment used in department programming; and,
  - 6. is responsible for enforcing the eligibility requirements of Subchapter 7–300.
- a. The director is administratively responsible to and reports to the vice president for student affairs.

### **Sec. 7–402. The Intramural Sports Council**

- a. The Intramural Sports Council has ten members. The members are:
  - 1. the director or the director’s delegate; and,
  - 2. nine student members, representing the participants in the intramural program.
  - 3. The director or the director’s delegate will serve as administrative advisor without vote.
- b. The council will:
  - 1. elect a student chair to facilitate the business of the council;
  - 2. participate in the designation of one student for appointment to the Recreational Sports Committee for a one-year term;
  - 3. assist the intramural staff in formulating intramural program policies;
  - 4. rule on protests, individual or group eligibility, and related matters;
  - 5. formulate and compile an Intramural Sports Honor Code; and,
  - 6. hear all alleged violations of the Intramural Sports Honor Code referred to it by the director. The burden of proving each allegation rests with the individual or group making the charge and all allegations must be presented in writing. A decision may be based on a violation of the spirit, as well as the letter of the rules.
- c. A majority of the council constitutes a quorum and a majority of the quorum rules.

### **Sec. 7–403. The University of Texas Sport Club Association Council**

- a. The University of Texas Sport Club Association (UTSCA) Council has ten members. The members are:
  - 1. the director or the director’s delegate; and,
  - 2. nine student members, representing the participants in the sport club program.
  - 3. The director or the director’s delegate will serve as administrative advisor without vote.
- b. The council will:
  - 1. elect a student chair to facilitate the business of the council;
  - 2. participate in the designation of one student for appointment to the Recreational Sports Committee for a one-year term;
  - 3. assist the sport club staff in formulating sport club program policies;
  - 4. hear appeals of decisions of the sport club program administrators; and,
  - 5. make recommendations on student organizations that have completed the application process for UTSCA membership.

- c. A majority of the council constitutes a quorum and a majority of the quorum rules.

## **Subchapter 7–500. Areas of the Department**

### **Sec. 7–501. The Intramural Sports Program**

- a. The program of organized student sports competition for men provides the opportunity for competition among individual students and among teams representing student groups or organizations such as fraternities, clubs, and residences, and/or graduate or undergraduate teams organized solely for the purpose of competing in a tournament or event.
- b. The program of intramural sports competition for women provides the opportunity for organized competition among individual students and among teams representing student groups or organizations such as clubs, sororities, and residences, and/or graduate or undergraduate teams organized solely for the purpose of competing in a tournament or event.
- c. A program of coed intramurals provides the opportunity for men and women students and Recreational Sports members to form mixed teams for intramural competition. Tournaments are offered in dual and team sports.
- d. The purpose of these programs is to provide the opportunity for competition among students and to foster the physical, social, and emotional benefits of participation in sports activities, accompanied by a sense of sportsmanship.

### **Sec. 7–502. The Informal Recreation Program**

- a. The informal recreation program provides an opportunity for students and Recreational Sports members to participate in unstructured recreational activities when facilities are not scheduled for formal programming.
- b. The purpose of the program is to assist the participant in developing beneficial and satisfying leisure-time sports activities.

### **Sec. 7–503. The Outdoor Recreation Program**

- a. The outdoor recreation program provides equipment rental and supervised trips in a variety of activities such as backpacking, camping, canoeing, kayaking, nature hiking, and rock climbing. Trips are open to students, the University community, and the general public. Equipment rental is available to students, faculty, and staff members with a Recreational Sports membership.
- b. The outdoor recreation program provides an indoor climbing wall with 2,600 square feet of climbing surface for the leisure-time use of students and Recreational Sports members.
- c. The purpose of the outdoor recreation program is to provide an opportunity for students to experience outdoor, wilderness activities in educationally oriented, supervised events.

### **Sec. 7–504. The Fitness/Wellness Program**

- a. The fitness/wellness program offers group fitness classes, clinics and series, and personal training. It is open to students and Recreational Sports members.
- b. The purpose of the program is to provide participants with the opportunity to improve and maintain physical fitness and to engage in leisure-time activities.

### **Sec. 7–505. The University of Texas Sport Club Association**

- a. The University of Texas Sport Club Association is composed of sport or physical-activity-related student organizations sponsored by Recreational Sports.
- b. The purpose of the University of Texas Sport Club Association is to promote interest in specific sport activities and to provide the opportunity for students to compete among themselves and in

extramural competition with students from other colleges and universities, or with other approved sources of competition.

- c. The association offers sport club members opportunities for the development of leadership and organizational skills as well as opportunities for social interaction.
- d. The University of Texas Sport Club Association operates under the administration of the department.

### **Sec. 7–506. The Instructional Program**

- a. The Instructional Program provides Recreational Sports staff and the campus community with non-credit educational classes in the areas of safety education, swimming, and sport skills.
- b. The purpose of the program is to provide opportunities for participants to learn and enhance skills.

### **Sec. 7–507. Membership and Guest Services**

- a. Membership and Guest Services manages recreation facility access systems and provides amenities to students and Recreational Sports members. Access is provided through membership, and amenities include locker and towel service, and massage therapy.
- b. The purpose of this area is to meet the leisure-time needs of the University community and to create a campus culture of wellness.

## **Chapter 8. The University Unions**

### **Subchapter 8–100. General Provisions**

#### **Sec. 8–101. Purpose**

The University Unions provide cultural, educational, social, and recreational programs, as well as related goods, services, and facilities for The University of Texas at Austin and greater community.

#### **Sec. 8–102. Definitions**

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. “Board” means the Board of Directors of the University Unions.
2. “Chancellor” means the Office of the Chancellor of The University of Texas System.
3. “Executive director” means the executive director of the University Unions.
4. “President” means the chief administrative officer of The University of Texas at Austin.
5. “Student” means a person enrolled in residence at the University.
6. “Unions” or “union” means:
  - A. the Texas Union; and
  - B. the William C. Powers, Jr. Student Activity Center.
7. “Unions managed facilities” means:
  - A. Hogg Memorial Auditorium;
  - B. Student Services Building; and
  - C. 2609 University Avenue.
8. “E+E” means Campus Events and Entertainment.
9. “University” means The University of Texas at Austin.
10. “Vice president” means the vice president for student affairs at The University of Texas at Austin.

## **Subchapter 8–200. The Board of Directors of the University Unions**

### **Sec. 8–201. Membership**

- a. The board has nine voting members. The members are as follows:
  1. Three members of the faculty, appointed by the president for three-year overlapping terms, one to be appointed each year, effective May 1.
  2. Six students, including the Student Government president, the E+E president, and four others as follows:
    - A. Two students registered for at least six semester hours during each long-session semester of service, to be selected by the president of Student Government after announcement of the position opening in the *Daily Texan* and other appropriate media. Appointments will be ratified by a majority vote of the Student Assembly and will become effective May 1, for two-year overlapping terms. Should a vacancy occur during a term, (i) the Student Government president will appoint a new member who will receive proper approval of the Student Assembly before taking a seat on the board; (ii) the new member will become a full voting member of the board immediately.
    - B. Two students registered for at least six semester hours during each long-session semester of service, to be elected for one-year terms by the student body during Student Government elections each year. Should a vacancy occur during a term, the chair of the University Unions board of directors will nominate another student who must receive a majority vote of the board. A quorum must be present to approve a new member.
- b. The executive director and an appointee of the vice president are members of the board without a vote.

### **Sec. 8–202. Officers**

The officers of the board are the chair, the vice chair, and the executive director. The chair will be elected each year from the student membership of the board by the voting members of the board to serve a term to extend from the first official board meeting of the fall semester until May 15, the following year or until a new chair is elected. To qualify for election as chair, a student will have at least one year’s experience on either the E+E or the board. This qualification may be waived by a two-thirds vote. Both outgoing and new board members will be eligible to vote for chair. The vice chair of the board will be a student member, chosen each semester by the elected chair. The Student Government president and the E+E president cannot serve as chair of the Board of Directors. The officers of the board will perform the usual duties of their respective offices.

### **Sec. 8–203. Meetings**

The board will meet once a month during each long session, setting its own dates for meetings, formulating its own rules of procedure, and setting up and appointing such committees as it may deem necessary and desirable for the proper use of the University Unions’ facilities consistent with the Regents’ *Rules and Regulations*.

### **Sec. 8–204. Executive Committee**

- a. The board may authorize three of its voting members to serve between meetings as an executive committee.
- b. An executive committee may act for the board only during the period beginning annually on May 15, and ending the first day of registration for the fall semester or during official University semester breaks or holiday periods. All actions taken by the executive committee are subject to ratification by the board.

## Sec. 8–205. Duties

The board shall:

- a. recommend rules, regulations, and procedures regarding the operation and use of the unions, advise and consult on rules, regulations, and procedures regarding the operations and use of the Unions managed facilities;
- b. approve the E+E budget, the appointment of E+E officers, all changes in the E+E by-laws, and the addition or deletion of any E+E committees;
- c. advise the president, through the vice president, on the selection of the unions' executive director; and,
- d. be involved in the future development of the unions.

## Subchapter 8–300. Review of Board Action

### Sec. 8–301. Review by the Vice President

- a. The board will deliver promptly to the vice president of student affairs at least two copies of the minutes of each board or executive committee meeting.
- b. No recommendation of the board or executive committee will have any force or effect until said recommendation has been approved by the vice president and has received such other approval as required.
- c. Every action of the board or of a committee or subcommittee of the board is subject to review by the vice president. The vice president may approve, reverse, or modify each such action.
- d. No budget or budget amendment adopted by the board is effective until it is approved by the vice president through normal budget procedure.
- e. No expenditure will be made by the board unless it is made pursuant to a budget item that has been adopted by the board and has received final approval from the vice president.

## Subchapter 8–400. The Executive Director of the University Unions

### Sec. 8–401. Duties of the Executive Director

- a. The executive director is administratively responsible to and will report periodically to the vice president, serves as the chief executive official in the unions, and is responsible for the operation of the union and union managed facilities, programs, and activities. The executive director will:
  1. coordinate all functions involving union and union managed facilities and the interests of the various groups served by the facilities;
  2. employ, supervise, and direct the work of all subordinate employees; and,
  3. be a member of all committees without vote.
- b. Annually, on or before November 15, the executive director will submit to the board a report of union activities for the year. Copies of the report will be distributed to the vice president and to others as the vice president may direct.

## Subchapter 8–500. The University Unions Campus Events and Entertainment

### Sec. 8–501. Purpose

The E+E is chartered by the University Unions to organize and present a program of activities and events for the University student body in areas of general interest.

### Sec. 8–502. Members and Officers

- a. The E+E is composed of the various committees, their chairs, and the officers of the E+E.

- b. The E+E has a president elected by the student body in the general student elections in the spring of each year and such other officers as approved by the University Unions Board.

### Sec. 8–503. Duties

The E+E is the decision making, coordinating, evaluating, and recommending body of the union's activities and events program. The E+E will

- a. coordinate the union's activities and events program;
- b. evaluate the union activities and events program, and recommend changes to its components; and,
- c. recommend to the board actions, policies, and procedures affecting the union activities and events program.

### Sec. 8–504. Review of E+E Actions by the Board

All actions of the E+E are subject to review by the board.

## Subchapter 8–600. Creative 40 Acres at Hogg Memorial Auditorium

### Sec. 8–601. Purpose

The Creative 40 Acres at Hogg Memorial Auditorium is the result of a partnership between the College of Fine Arts and the Division of Student Affairs and will serve as a center of creative engagement for students, staff, and faculty.

### Sec. 8–602. The Creative 40 Acres Advisory Committee

The Creative 40 Acres Advisory Committee exists to provide informed input to the committee chair on specific objectives as the initiative is being developed. This committee is a recommending body to the University Unions Board of Directors.

### Sec. 8–603. Membership

The committee can have up to eleven voting members. The desired membership is as follows:

- a. Two members of the College of Fine Arts faculty;
- b. Five students, including representation from the Student Government, the Senate of College Councils, College of Fine Arts, and the University Unions Campus Events and Entertainment; and,
- c. Four staff members, including representation from the School of Undergraduate Studies, Student Activities, Hogg Memorial Auditorium, and University Unions.

### Sec. 8–604. The Creative 40 Acres Chair

The chair of the Creative 40 Acres at Hogg Memorial Auditorium is the University Unions Executive Director or his/her designee. He/she is responsible for reporting periodically to the University Unions Board of Directors and for the development of the Creative 40 Acres initiative. The chair will:

- a. Facilitate meetings; and,
- b. Present recommendations from the committee to the Board of Directors.

The committee will meet twice a semester during each long session, setting its own dates for meetings, formulating its own rules of procedure, and setting up and appointing such committees as it may deem necessary and desirable for the purpose of developing the initiative.

## Subchapter 8–700. Union and Union Managed Facilities

### Sec. 8–701. Reservations and Use of Union and Union Managed Facilities

- a. Union and Union managed facilities are reserved primarily for use by students, faculty members, and staff members.
- b. In accordance with recommendations developed by the board, the executive director or the executive director's representative may permit special persons, groups, or organizations to reserve and use portions of Union managed facilities when the intended use does not interfere with regular union programs or activities. The executive director may charge a reasonable rental fee for use of Union managed facilities by such persons, groups, or organizations. The executive director will permit persons, groups, or organizations officially designated as guests of the University by the president, the chancellor, or the Board of Regents to use union facilities without cost. All requests for the use of union facilities are subject to prior reservations, therefore, requests should be made as early as possible.

### Sec. 8–702. Policy against Discrimination

No person or organization will be excluded from participation in or denied the benefits of union facilities, services, and programs on any basis prohibited by applicable law, including, but not limited to, race, color, religion, national origin, age, disability, citizenship, veteran status, sexual orientation, gender identity, or gender expression.

### Sec. 8–703. Naming and Recognition

The vice president for student affairs shall consult with and seek the advice of the University Unions Board of Directors on all naming or recognition initiatives for the facilities listed in this section as being under the purview of the Board.

## Chapter 9. Educational Records

### Subchapter 9–100. General Provisions

#### Sec. 9–101. Purpose

The student educational records maintained by the University fall into two general categories: directory information and student records. The purpose of this chapter is to describe various kinds of educational records and to state the permissible uses of these records. These policies and procedures are in full accord with the final regulations implementing the Family Educational Rights and Privacy Act of 1974 (FERPA).

#### Sec. 9–102. Confidentiality of Records

- a. Directory information: That part of a student's educational record defined as directory information in section 9–201 is public information. It will be made available to the public unless the student has restricted it as described in subsection 9–201(c).
- b. Student records: Student records include all educational records except for directory information and are not public records. The University will maintain the confidentiality of these student records as indicated in section 9–202.
- c. Information in a student's educational record may be released by the University as directed by the president in an emergency if the information is necessary to protect the health or safety of the student or other persons.

#### Sec. 9–103. Information Not Recorded

No record will be kept that reflects a student's political attitudes, beliefs, or activities.

#### Sec. 9–104. Definitions

In this chapter, unless the context requires a different meaning,

1. "educational record" means the official record of a student that is maintained by the University for use by the University and includes directory information and student records. "Educational record" does not include the personal records of University personnel that are maintained in the sole possession of and for the sole use of the maker thereof or of a temporary substitute for the maker; the records of law enforcement units that are maintained solely for law enforcement purposes; employment records related exclusively to an individual's employment capacity (except as indicated in subsection 9–201[a]); medical and psychological records; thesis or research papers; or records that contain information about an individual only after the individual is no longer a student at the University.
2. "student" means a person enrolled on or after the first class day of the initial semester of attendance or a person formerly enrolled at the University;
3. "president" means the president of The University of Texas at Austin; and
4. "University" means The University of Texas at Austin.

### Subchapter 9–200. Directory Information and Student Records

#### Sec. 9–201. Directory Information

- a. "Directory information" is defined as a student's name, local and permanent addresses, electronic mail addresses, UT EID, telephone listing, place of birth, major field(s) of study, participation in officially recognized activities and sports, weight and height if a member of an athletic team, dates of attendance, enrollment status, degrees, awards and honors received (including selection criteria), the most recent previous educational institution attended, job title and dates of employment when employed by the University in a position that requires student status, and other similar information. Other similar information includes a student's classification and expected date of graduation and student parking permit information.
- b. Directory information is public information and will be made available to the public unless the student has restricted it as described in subsection 9–201(c).
- c. A currently enrolled student may request that all or some directory information not be made public by completing an appropriate request online or in the Office of the Registrar. This request will remain in effect until revoked by the student. In the event of such a request, this restricted information will be treated as student records information as defined in subsection 9–202(a). In response to public inquiries, the University will state that the student has requested that the University not release part of the student's information; if the student has requested that all information be kept confidential, the University will state that the University has no information to provide regarding the person about whom the inquiry has been made.

#### Sec. 9–202. Student Records

- a. Student records include educational records maintained by the University except for directory information. Student records include official University academic and personal records relating to scholastic, disciplinary, and fiscal matters, as well as records maintained by University offices and agencies that provide services sought voluntarily by individual students. The authorized use of and access to disciplinary records are described in subchapter 9–300 and subchapter 11–900 of the *Institutional Rules*. The University will not permit access to or the release of personally identifiable information contained in these records without the written consent of the student to any party other than the following:

1. appropriate University administrators, faculty members, or staff members, appropriate administrators or staff members of the Texas Exes, and contractors or others acting on behalf of the University who require access to educational records in order to perform their legitimate educational duties, when such records are needed in furtherance of the educational or business purposes of the student or the University;
  2. officials of other schools in which the student seeks or intends to enroll, upon request of these officials, and upon the condition that the student be notified and receive a copy of the record if desired;
  3. federal, state, or local officials or agencies authorized by law;
  4. in connection with a student's application for, or receipt of, financial aid;
  5. accrediting organizations or organizations conducting educational studies, provided these organizations do not release personally identifiable data and provided they destroy such data when it is no longer needed for the purpose for which it was obtained. If the University discovers that an organization that has received student records from the University has released or failed to destroy such records in violation of this policy, it will prohibit access by that organization to educational records for five years;
  6. the parents of a dependent student as defined in section 152 of the Internal Revenue Code of 1954, provided a reasonable effort is made to notify the student in advance;
  7. in compliance with a judicial order or subpoena, provided a reasonable effort is made to notify the student in advance unless the subpoena specifically directs the institution not to disclose the existence of a subpoena; or
  8. to an alleged victim of any crime of violence or a nonforcible sexual offense, the results of the alleged perpetrator's disciplinary proceeding may be released.  
The University will maintain, as part of a student's student record, a record of all parties who have obtained access to data in the record, except the parties listed in subsection 9–202(a)(1). The record of access will include the legitimate interest of the party in obtaining the information.
- b. Upon written request, the University will provide a student access to his or her records described in subsection 9–202(a), except for
1. financial records of the student's parent or guardian; and
  2. confidential letters of recommendation placed in the student's educational record prior to January 1, 1975; and confidential letters of recommendation placed in the student's educational record after January 1, 1975, if the student has signed a waiver of the right of access to letters of recommendation.
- c. The official custodian of records at the University is the vice president and chief financial officer. Since the University does not maintain a central repository for student records, inquiries for access to specific student records should be made to the University office or agency concerned with the particular record. Requests for assistance in locating individual student records should be directed in writing to the custodian of records.
- d. A student may obtain copies of his or her records described in subsection 9–202(a) at a cost of ten cents per page, except for an official transcript of academic record, \$20, and an unofficial copy of the permanent academic record, \$20. Educational records covered by the Family Educational Rights and Privacy Act of 1974 (FERPA) normally will be made available within forty-five days of the request.
- e. A student may challenge the contents of his or her educational record on the grounds that the record is inaccurate, misleading, or otherwise in violation of his or her privacy rights. The student

submits such a challenge by writing to the custodian of records. If the dispute cannot be resolved by informal proceedings, the student may request a formal hearing. The request for a hearing must be made in writing to the custodian of records. Within a reasonable period of time after receiving the request, the custodian of records will inform the student of the date, place, and time of the hearing. The student may present evidence relevant to the issues raised and may be assisted or represented at the hearing by one or more persons of the student's choice, including attorneys, at the student's expense. The hearing officer who will adjudicate the challenge will be appointed by the president. Decisions of the hearing officer will be based solely on the evidence presented at the hearing, will consist of written statements summarizing the evidence and stating the reasons for the decision, will be delivered to all parties concerned, and will be final. The educational record will be corrected or amended in accordance with the decision of the hearing officer, if the decision is in favor of the student. If the decision is unsatisfactory to the student, the student may place with the educational record statements commenting on the information in the record, statements setting forth any reasons for disagreeing with the decision of the hearing officer, or both. The statements will be maintained as part of the student's records and released whenever the record in question is disclosed. A student who believes that the adjudication of the challenge was unfair or was not in keeping with the provisions of FERPA may request, in writing, assistance from the president.

- f. Complaints about alleged failure to comply with the provisions of FERPA may be submitted in writing to the Family Policy Compliance Office, US Department of Education, 400 Maryland Avenue, SW, Washington DC 20202.
- g. In addition to the procedures described in subsection 9–202(e), general categories of educational records are periodically reviewed and obsolete information is removed and destroyed in accordance with an established record retention schedule.

### **Sec. 9–203. Official Transcripts of Records**

- a. The Office of the Registrar will send, issue, or release a student's official transcript of record only
  1. at the student's written request;
  2. after formal authentication of the student's identity; or
  3. in accordance with subsection 9–202(a).
- b. A transcript of record will contain only the information described in section 9–402 and will not be furnished either in part or with information omitted or deleted.
- c. The registrar will maintain a "Register of Requests for Official Transcripts." The register of requests is part of the student record.
- d. The sanction of withholding an official transcript or degree may be imposed upon a student who fails to pay a debt owed to the University. The sanction is lifted when the student has paid the debt.
- e. The dean of students, the president, or the Office of the Chancellor may withhold the issuance of a transcript or a degree pending a hearing against a student who violates a rule or regulation of The University of Texas System or the University when, in the opinion of the official, the interest of The University of Texas System or the University would be served by interim action.

## **Subchapter 9–300. Disciplinary Records**

### **Sec. 9–301. Disciplinary Record**

- a. The University will maintain a permanent written disciplinary record for every student assessed the sanction of suspension, expulsion, denial or revocation of a degree, dismissal from an academic program, or withdrawal of a diploma. Suspension is noted on the official transcript during the term of suspension. The notation can

be removed upon the request of the student when all conditions of the suspension are met. The request for the removal of the transcript notation of suspension should be directed to the Office of the Dean of Students. A permanent notation of expulsion is also placed on the official transcript. A written record of any other case investigated by University Compliance Services or the dean of students will be maintained for at least seven years. The disciplinary record will reflect the nature of the charge, the sanction assessed, and any other pertinent information.

- b. The contents of a student's disciplinary record may be made available by the president or the president's delegate to appropriate University officials who have a legitimate educational interest.
- c. The contents of a student's disciplinary record may be made available to persons outside the University only upon written request of the student, or in accordance with state and federal law.

## Subchapter 9–400. Official Transcripts

### Sec. 9–401. Office of the Registrar

The registrar compiles, maintains, and administers official transcripts of record.

### Sec. 9–402. Content of Transcripts

Each student's official transcript of record contains the following information:

1. name of the student;
2. birthdate;
3. name and city of high school attended and date of graduation (unless admitted as a transfer student);
4. transfer credits, if any;
5. courses taken, hours completed, grades received, grading system, and grade point average;
6. for undergraduate students, a symbol showing scholastic probation or dismissal, if any, during the period of probation or dismissal; for graduate students, a symbol showing scholastic dismissal;
7. type of degree granted by the University and honors received;
8. date of graduation from the University; and
9. notation of disciplinary suspension or expulsion, if applicable.

# Chapter 10. Use of University Property, Rooms, and Spaces

## Subchapter 10–100. General Provisions

### Sec. 10–101. Purpose and Application

- a. The University of Texas at Austin permits the orderly use of rooms and spaces on its property, as provided in this Chapter, to further the educational process. The University does not endorse any statement or activity that does not represent official University action.
- b. This Chapter authorizes and regulates the reservation of University rooms and spaces; the identification of persons present on University property; and the use of alcoholic beverages on University property. Speech, assembly, and expression by students, faculty members, and staff members and members of the public on University property are further protected and regulated in Chapter 13 of the *Institutional Rules*.
- c. No person or organization may use a University facility for any purpose other than in the course of the regular mission of the University or the University of Texas System unless authorized by the Regents' *Rules and Regulations*. Any authorized use must be

conducted in compliance with the provisions of the Regents' *Rules and Regulations*, the approved rules and regulations of the University, and applicable federal, state, and local laws and regulations.

### Sec. 10–102. General Definitions—Categories of Speakers and Users

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Academic or administrative unit" means any office or department of the University.
2. "Faculty member and staff member" includes any person who is employed by the University.
3. "Member of the public" means any person, organization, or business that is not an academic or administrative unit, a registered student, faculty, or staff organization, or a student, faculty member, or staff member.
4. "Registered faculty or staff organization" includes a faculty or staff organization under the Regents' *Rules and Regulations*, Rule 40201.
5. "Registered student organization" includes a student organization registered under Subchapter 6–200 of the *Institutional Rules*.
6. "Sponsored student organization" includes only a student organization registered under Subchapter 6-200 that is officially sponsored by the University under Sec. 6-101.
7. "Student" means a person who is currently enrolled at the University.
8. "University organization" includes academic and administrative units, sponsored student organizations, and registered student, faculty, and staff organizations.

### Sec. 10–103. Other General Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Common outdoor area" means outdoor space that is not used for dedicated University business, an educational function, or a research function on either a permanent or a temporary basis. It does not include the outside surfaces of a University building, surfaces associated with or connected to a University building, a University structure, spaces dedicated to temporary outdoor banners, spaces dedicated to temporary outdoor exhibits, or any other space within the University's limited public forum. Common outdoor areas are designated by state law as traditional public forums.
2. "Cosponsorship" means an event held within the University's limited public forum where an academic or administrative unit is delegated authority from the president of the University to partner with an off-campus person or organization for such event, and does so. Cosponsored events are University events by virtue of being partially sponsored by a University academic or administrative unit.
3. "Day" means an 8:00 a.m. to 5:00 p.m. calendar day, and excludes weekends, University holidays, skeleton crew days, and days on which regularly scheduled classes are suspended due to emergent situations. "University holiday" and "skeleton crew days" means days identified in the holiday schedule published by the Office of Human Resource Services. If a deadline in this Chapter falls on a Saturday, Sunday, or University holiday or skeleton crew day, that deadline will be moved to the next day.
4. "Dean of students" means the dean of students of The University of Texas at Austin or any delegate or representative of the dean of students.
5. "Limited public forum" means the University property, both indoors and outdoors, that is not part of the common outdoor area. This includes the outside surfaces of a University building, surfaces associated with or connected to a University building, a University structure, spaces dedicated to temporary outdoor banners, spaces

dedicated to temporary outdoor exhibits, residential outdoor spaces managed by University Housing and Dining including Jester Spanish Oaks Terrace, San Jacinto Amphitheatre, Honors Quad, and Duren Courtyard, the Blanton Museum's outdoor Plaza and Art Garden, the Union Building Patios, the William C. Powers Jr. Student Activity Center patios, Goldsmith Hall, and the Cronkite Plaza.

6. "Residential conference center" means facilities that are designated by the president as allowed by the Regents' *Rules and Regulations*, Rule 80112. Residential conference centers include the AT&T Resident Conference Center.
7. "Room or space" includes any room or space, indoors or outdoors, owned or controlled by the University.
8. "Special use facilities" means facilities that are designated by the president as allowed by the Regents' *Rules and Regulations*, Rule 80106. Special use facilities include the facilities controlled by Texas Performing Arts and the Frank C. Erwin Jr. Special Events Center.
9. "University" means The University of Texas at Austin.
10. "Vice president" means the vice president for student affairs at The University of Texas at Austin, or his or her designee.

## Subchapter 10–200. Reservation of a Room or Space on University Property

### Sec. 10–201. Permission to Use

- a. Academic or administrative units and registered student, sponsored student, faculty, or staff organizations may reserve a space to assemble in the limited public forum areas in accordance with subchapter 13–902(b) of the *Institutional Rules*. University organizations may reserve the use of a room for purposes permitted by the Regents' *Rules and Regulations*.
- b. Academic or administrative units and registered student, sponsored student, faculty, or staff organizations may reserve a temporary outdoor exhibit space.
- c. Academic or administrative units and registered student, sponsored student, faculty, or staff organizations may reserve a temporary banner space.
- d. University persons, University organizations, and members of the public may reserve an outdoor weekday amplified sound area in accordance with subchapter 13–803 of the *Institutional Rules*.
- e. University persons, University organizations, and members of the public may reserve a space within the common outdoor areas for amplified sound on evenings or weekends in accordance with subchapter 13-804 of the *Institutional Rules*.
- f. University persons, University organizations, and members of the public may reserve a space within the common outdoor areas for assembly in accordance subchapter 13–902(a) of the *Institutional Rules*.
- g. Academic and administrative units of the University will have priority in reserving the use of rooms and spaces, except that they will not have priority in the use of weekday amplified sound areas defined in Sec. 13–802 of the *Institutional Rules*.
- h. Any person or organization with a reservation has the right to the room or space for the time covered by the reservation. Any person or organization using or occupying the room or space without a reservation must yield control of the room or space in time to permit a user with a reservation to begin using the room or space promptly at the beginning of its reserved time.
- i. Reservations are subject to cancellation for extenuating circumstances, including but not limited to health and safety events or business reasons which may require the university to close unexpectedly or with little notice.
- j. Except as provided within Chapter 13, reservations are not required but are strongly encouraged. A University organization or faculty

member, staff member, or student planning to use a room or indoor space without a reservation may find the facility locked or in use by another University organization.

### Sec. 10–202. Application

- a. All persons and organizations wishing to reserve an outdoor space will apply through a process prescribed by the dean of students. Members of the public may not reserve or use indoor spaces.
  1. Registered student organizations wishing to reserve a general purpose classroom will apply through a process prescribed by the dean of students.
  2. Individual faculty and staff members using space for academic or administrative purposes, registered faculty and staff organizations, and academic and administrative units wishing to reserve a general-purpose classroom will apply through a process prescribed by the registrar.
  3. Reservations for rooms and spaces controlled by academic or administrative units other than the registrar and the dean of students will be made through the unit that controls the room or space. Rooms and spaces controlled by other units include special use facilities, residential conference centers, athletic facilities, classrooms that are not general-purpose classrooms, many conference rooms, reception areas, and other specialized rooms and spaces and may be subject to special rules. Academic and administrative units are encouraged to make the rules and procedures for reserving rooms and spaces, and a list of the rooms and spaces that may be reserved, readily available on a website, flyer, or pamphlet, available at the unit's office.
- b. The dean of students will maintain the following on a website, flyer, or pamphlet, available at the dean of students' office:
  1. the procedures for reserving outdoor space for persons or organizations and any additional rules applicable to outdoor reservations;
  2. the procedures for registered student organizations reserving general purpose classrooms and any additional rules applicable to such reservations; and,
  3. a list of general purpose classrooms.

### Sec. 10–203. Consideration of Application

- a. The dean of students will approve a properly completed application to reserve an outdoor space and will facilitate a properly completed application to reserve a general purpose classroom, unless the dean of students finds that:
  1. the proposed use of the room or space would violate Regents' *Rules and Regulations*, University regulation, or administrative rule;
  2. another event or exhibit has been scheduled for the proposed time and location, or so near that there is a practical conflict;
  3. the room or space requested is inadequate to accommodate the proposed use;
  4. the proposed use of the room or space would violate reasonable and nondiscriminatory fire, health, or safety standards;
  5. the proposed use of the room or space would constitute an immediate and actual danger to students, faculty members, or staff members or to the peace or security of the University that available law enforcement officials could not control with reasonable effort;
  6. the applicant is under a disciplinary sanction or is the subject of a criminal trespass warning that prohibits reserving the use of a University room or space or that prohibits the proposed use of the room or space;
  7. for indoor spaces and spaces within the University's limited public forum, the applicant owes a monetary debt to the

University and the debt is considered delinquent by the crediting agency; or,

8. the applicant has attempted to reserve space under a different name to circumvent university policy or a disciplinary sanction.
- b. If the dean of students does not approve an application under Sec. 10–203(a), upon request he or she will give the applicant a written statement of the grounds for refusal as soon as possible, but no later than five days from receiving such a request.

## Subchapter 10–300. Regulations Applicable to University Property

### Sec. 10–301. Identification

- a. Any person will identify himself or herself when asked to do so by an institutional representative while in any building owned or controlled by the University or The University of Texas System. A person identifies himself or herself by:
  1. giving his or her name and complete address, substantiated by a current driver's license, voter registration card, or other official documentation; and,
  2. stating truthfully whether he or she is a student or employee of the University or The University of Texas System.
- b. An "institutional representative" is any regent, executive officer, administrative officer, attorney, peace officer, or security officer of the University or the University of Texas System, or the designee of any of the foregoing.
- c. Any person who refuses to identify himself or herself in accordance with Sec. 10–301(a) while in any building owned or controlled by the University or The University of Texas System may be convicted of a misdemeanor as referenced in the Regents' *Rules and Regulations*, Rule 80101.
- d. Any student, faculty member, or staff member who refuses to identify himself or herself while in any building owned or controlled by the University or The University of Texas System in accordance with Sec. 10–301(a) is subject to University disciplinary action.

### Sec. 10–302. Use of Alcoholic Beverages

The use of alcoholic beverages is prohibited on property and in buildings and facilities owned or controlled by the University or The University of Texas System. However, the chief administrative officer of the University or The University of Texas System may waive this prohibition with respect to any specific event sponsored by the University or The University of Texas System. Meetings or events sponsored by registered faculty, staff, or student organizations are not events sponsored by the University or The University of Texas System. State laws related to alcoholic beverages will be strictly enforced at all times on property controlled by the University of Texas System and its component institutions.

### Sec. 10–303. Unauthorized Access

Permitting or allowing unauthorized individuals to enter into buildings and facilities restricted from unauthorized access by deliberately disengaging, deactivating, or otherwise circumventing locking devices is prohibited. Unauthorized access includes but is not limited to:

1. an individual leaving the door open or holding it open to individuals without badges or to unauthorized personnel and
2. if an unauthorized person enters at the same time as an authorized individual.

### Sec. 10-304. Cosponsorship

- a. Only academic or administrative units delegated authority from the president of the University may partner with an off-campus person

or organization for a cosponsored event in the University's limited public forum.

- b. Registered student, faculty, or staff organizations, individual students, faculty members, and staff members may not cosponsor any event in a building or facility on campus with an off-campus person or organization. Sponsored student organizations are an extension of the sponsoring academic or administrative unit under the authority of subsection 6-101(9) of the *Institutional Rules*.
- c. An event is a prohibited cosponsorship if an individual or a registered student, faculty, or staff organization
  1. depends on an off-campus person or organization for planning, staffing, or management of the event; or
  2. advertises the event as cosponsored by an off-campus person or organization; or
  3. operates the event as agent of, or for the benefit of, an off-campus person or organization, except for solicitation of charitable contributions under the authority of subsection 13–205(b)(1); or
  4. distributes any proceeds of the event to an off-campus person or organization, except for
    - A. the proceeds of charitable contributions solicited under the authority of subsection 13–205(b)(1); or
    - B. payment of a fair market price for goods or services provided to the University person or organization; or
  5. reserves a room or indoor space for the use of an off-campus person or organization; or
  6. engages in any other behavior that persuades the dean of students that an off-campus person or organization is in fact responsible for the event, in full or in substantial part.
- d. The following facts do not, in and of themselves, indicate a prohibited cosponsorship:
  1. that a University person or organization endorses an off-campus person or organization or its message;
  2. that a University person or organization sells, distributes, or displays literature prepared by an off-campus person or organization or containing contact information for an off-campus person or organization (subject to the rules in section 13–205);
  3. that a University person or organization has purchased goods or services from an off-campus provider;
  4. that a registered student, faculty, or staff organization has invited a guest speaker under subchapter 13–1000;
  5. that a registered student, faculty, or staff organization has received financial contributions to support the event from an off-campus donor.
- e. Speech events occurring in the common outdoor areas, which adhere to the time, place, and manner rules of Chapter 13 of the *Institutional Rules*, are not prohibited as cosponsored events even when University persons or organizations partner with an off-campus person or organization for the planning, staffing, or management of such events.

## Subchapter 10–400. Enforcement and Appeals

### Sec. 10–401. Response to Violations

A student who violates a prohibition in this Chapter may be disciplined under the procedures in Chapter 11 of the *Institutional Rules*. A registered student organization or a sponsored student organization that violates a prohibition in this Chapter may be disciplined under Chapter 6 of the *Institutional Rules*. A member of the public who violates a prohibition in this chapter may be issued a criminal trespass warning banning such person from all or part of University property.

## Sec. 10–402. Appeals

- a. A University organization aggrieved by a decision under this chapter may appeal to the vice president by letter or by e-mail, also sending a copy to the decision maker, within fourteen days after the day the decision is announced. The appeal must contain the University organization's name and mailing address, a concise description of the decision complained of, the University organization's reasons for disagreeing with the decision, and the date the decision was announced.
- b. When timely notice of appeal is received, the decision maker from the academic or administrative unit that controls the room or space will prepare and send to the vice president a copy of the written statement of the reason given for the decision. At the discretion of the vice president, both parties may present oral arguments to an appeal of the decision under this Chapter.
- c. The action of the vice president will be communicated by letter or by e-mail to the University organization and the decision maker within five days after the appeal and related documents have been received.

## Sec. 10–403. Further Review by Petition

The issuer of a criminal trespass warning or a decision maker, or the University person or organization may petition, by letter or by e-mail through the vice president, to the president of the University to review the decision being appealed. The president may establish an ad hoc committee and refer the request to the committee to review the request for appeal and affirm or reverse the underlying determination. The committee reviews appeals solely at its discretion as determined by a majority vote of the committee members. Petitioners do not have a right to this further review should the committee decide not to provide it. Decisions by the committee to reverse or affirm the underlying determination are made by a majority vote of the committee members.

# Chapter 11. Student Discipline and Conduct

## Subchapter 11–100. General Provisions

### Sec. 11–101. Preamble

a. The University of Texas at Austin is committed to the formation and development of an academic community guided fundamentally by the University's core values: Learning, Discovery, Freedom, Leadership, Individual Opportunity, and Responsibility.

These core values are central to the University's expectations for student conduct, and community members shall uphold these values through Integrity, Honesty, Trust, Fairness, and Respect toward our Longhorn community.

As a member of The University of Texas at Austin community, students accept not only the rights and privileges of membership, but also the responsibility to uphold a long and steadfast tradition of excellence. In abiding by the core values of the University and adhering to the tenets of academic integrity, students choose to uphold an Honor Code reflective of a scholarly community devoted to academic and personal success.

The conduct of our student body shall be governed by the University Code of Conduct to promote safety, academic success, and citizenship, with the Student Honor Code reinforcing the aspirational standards of the community as a whole.

b. This chapter contains regulations for dealing with alleged student violations of University standards of conduct in a manner consistent with the requirements of procedural due process and in accordance with The University of Texas System Rules and Regulations of the Board of Regents' *Rule*: 50101 and the Model Policy for Student Conduct

and Discipline promulgated by the Office of General Counsel of The University of Texas System. In addition to the general expectations for conduct set forth in subsection 11–101(a), subchapter 11–400 contains a description of prohibited conduct.

## Sec. 11–102. Application and Jurisdiction

- a. This chapter applies to individual students and states the function of students, faculty members and administrative staff members of the University in disciplinary proceedings.
- b. A student is subject to discipline for prohibited conduct as outlined in subchapter 11-400 herein that occurs while the student is participating in off-campus activities sponsored by or affiliated with the University, including field trips, internships, rotations, and clinical assignments.
- c. Students may be disciplined by the University for violating any standards of conduct on the campus or off of the campus when the incident occurs in connection with an institution-oriented activity, or when the incident has a substantial connection to the interests of the University, or when the behavior is prohibited by University policy regardless of where it occurs, even if they are or may be penalized by civil authorities for the same act.
- d. University disciplinary action may be instituted against a student charged with conduct that potentially violates both the civil/criminal law and University policy without regard to the pendency of civil or criminal litigation in court or criminal arrest and prosecution. At the discretion of the dean of students, proceedings under this chapter may be carried out prior to, simultaneously with, or following criminal proceedings off campus. Determinations made and sanctions imposed under this chapter will not be subject to change because criminal charges arising out of the same facts that give rise to the violations of University rules were dismissed, reduced, or resolved in favor of or against the criminal law defendant.
- e. University disciplinary action instituted by the Office of the Dean of Students will be based upon the "Preponderance of Evidence" standard. This standard is satisfied if the action is deemed more likely to have occurred than not.
- f. A student remains subject to discipline for prohibited conduct that occurs while suspended.
- g. Adjudication of any alleged violation of institutional rules will advance procedurally under *The Institutional Rules Catalog* that is in effect on the day that the Office of the Dean of Students receives notification of the alleged violation and not the date on which the purported infraction is noted to have occurred.
- h. For allegations of conduct under Subsection 3-3031 of the Handbook of Operating Procedures that are assigned to Grievance Process Tracks A or B, the University Title IX Office has primary authority and responsibility for administration of the allegation. In those instances, the dean of students will coordinate with the Title IX coordinator, as requested by the University Compliance Office, to provide a discipline decision pursuant to that policy's processes. The provisions in this chapter do not apply to the administration of such allegations. This rule's provision does apply to allegations under 3-3031 that are assigned to Grievance Process Track C ("Track C").

## Subchapter 11–200. Administration of Discipline

### Sec. 11–201. Administration by Dean of Students

The dean of students has primary authority and responsibility for the administration of student discipline. The dean of students works cooperatively with faculty members, Hearing Officer(s) or the Student Conduct Board in the disposition of academic violations, with appropriate staff members in the Division of Housing and Food Service in the disposition of residence hall violations, and with other appropriate staff members in the disposition of other types of violations.

## Sec. 11-202. Hearing Officers and the Student Conduct Board

Hearing Officers and then Student Conduct Board (SCB) will be appointed in accordance with procedures established by the Vice President for Student Affairs. The Vice President for Student Affairs may appoint an individual or an office to coordinate the work of the Hearing Officers and SCB. The selection and training of both bodies is under the authority of the president's office and facilitated by the Vice President for Student Affairs.

### a. Composition.

1. The SCB is composed of students, faculty and staff members.
  - A. Student members must be currently enrolled in the University and cannot be an executive officer of any legislative student organization.
  - B. Student candidates for membership shall be recommended by a selection committee appointed by the Vice President of Student Affairs. The president will appoint the student members of the SCB upon the recommendation of the selection committee.
2. Hearing Officers are full time faculty or staff members.

b. **Chair.** The chair of the SCB shall be appointed by the Vice President for Student Affairs.

c. **SCB Panels.** Each panel shall be composed of five members or three members: four student members and one faculty/staff member, or two student members and one faculty/staff member. The panel foreperson will be selected by the SCB chair.

d. **Quorum.** A quorum of the SCB is a majority. A quorum of a panel of the SCB is a total of three SCB members. This panel quorum will be at least two students and one faculty/staff member.

e. **Jurisdiction.** The SCB shall only hear matters concerning allegations of academic dishonesty and general misconduct. The SCB shall not hear matters pertaining to Track C or violent conduct violations. Hearing Officer(s) can hear all of the same case categories as the SCB and will address violent conduct cases and/or Track C cases that fall under HOP 3-3031.

## Subchapter 11–300. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Academic Sanction" means a sanction affecting a student's grade, including but not limited to the lowering of a grade on an assignment, test, or in the course.
2. "Advisor" means a single individual whom an accused student may elect to accompany him or her to a meeting with the dean of students or a hearing regarding an alleged violation of University policy. The accused student is solely responsible for presenting his or her case during the disciplinary process. An advisor may confer with and advise the accused student but may not advocate for the student in a meeting with the dean of students or in a hearing or directly address the SCB or hearing officer. Advisors may be dismissed from any disciplinary proceedings if they disrupt the process. If an advisor is an attorney, the dean of students may also be accompanied by an attorney.
3. "Complaint" means a written statement prepared by the dean of students before a Title IX related investigation or a hearing that outlines the alleged violation(s) of a Regents' Rule, University regulation, or administrative rule to be investigated and resolved by the dean of students, the SCB or by the hearing officer.
4. "Complainant" means a person who is reported to be the victim of prohibited content related to a Track C case.
5. "Day" means an 8:00 a.m. to 5:00 p.m. calendar day, and excludes weekends, University holidays, skeleton crew days, and days on which regularly scheduled classes are suspended due to emergent situations; "University holiday" and "skeleton crew days" means days identified in the holiday schedule published by the Office of Human Resource Services. If a deadline defined in this chapter falls on a Saturday, Sunday, University holiday, or skeleton crew day that deadline will be moved to the next day.
6. "Dean of students" means the dean of students of The University of Texas at Austin or the dean of students' delegate or representative.
7. "Disciplinary decision" means a written decision determining that a student alleged to have violated the Regents' Rules, University regulation, or administrative rule is, in fact, responsible for such alleged misconduct. The "disciplinary decision" includes the findings of fact in support of the decision along with the assessed sanction or sanctions, if any.
8. "Disciplinary record" or "student disciplinary record" means a student record as defined in Sec. 9–202 of the *Institutional Rules* maintained by the dean of students in connection with a violation or an alleged violation of a Regents' Rule, University regulation, or administrative rule. The disciplinary record may include complaints, notices, hearing records, disciplinary decisions, and other documents required under this chapter or deemed relevant by the dean of students. Disciplinary records may be disclosed to outside parties as dictated by subchapter 9–300 of the *Institutional Rules*.
9. "Faculty member" means a person who is employed by the University for the purpose of teaching a class, and who has authority to assign grades for the class.
10. "Hearing officer" means a person appointed by the president to conduct hearings of alleged violations of a Regents' Rule, University regulation, or administrative rule.
11. "HOP 3-3031 Track C cases" or "Track C cases" refers to allegations of conduct that potentially constitutes Sex Discrimination, Sexual Exploitation, Unprofessional/Inappropriate Conduct, Retaliation, False Information or False Complaint, Interference with Grievance Process, as defined in HOP 3-3031. These cases are investigated by the Investigations Unit in University Compliance Services and referred to the dean of students for discipline decision. Notwithstanding this Rule's provisions, for allegations covered under Handbook of Operating Procedures 3-031 Track A and Track B, initiation of the grievance process, investigation, hearing, any discipline determination, and appeal will be according to HOP 3-3031's provisions, which control for such allegations.
12. "Interim Disciplinary Action" means disciplinary action adverse to an Accused Student taken against the Accused Student before finding of responsibility for a policy violation. Interim Disciplinary Action may include suspension, suspension of a right or privilege, or a prohibition from entering campus or any part of campus.
13. "Appellate officer" means a person designated by the president to issue final decisions in a student disciplinary matter.
14. "President" means the president of The University of Texas at Austin.
15. "Respondent" means the person reported to be the alleged perpetrator of conduct related to a Track C case.
16. "Student" means a person who is currently enrolled at the University, or who is accepted for admission or readmission to the University, or who has been enrolled at the University in a prior semester or summer session and is eligible to continue enrollment in the semester or summer session that immediately follows, or who is attending an educational program sponsored by the University while that person is on campus, or who engaged in prohibited conduct at a time when he or she met the above criteria. For the purposes of this chapter, individuals who are not currently enrolled at the University

remain subject to the disciplinary process for conduct that occurred while they were enrolled.

17. "Student Conduct Board" (SCB) means the entity or group of persons composed primarily of students, who along with faculty and/or staff, are appointed by the president, as provided in this chapter, to conduct hearings and issue decisions concerning academic dishonesty and general misconduct violations. The SCB shall not hear matters pertaining to Track C cases or violent conduct violations.
18. "Title IX" means Title IX of the Education Amendments of 1972, Pub. L. 92-318, as amended by section 3 of Pub. L. 93-568, 88 Stat. 1855, except sections 904 and 906 thereof; 20 U.S.C. 1681, 1682, 1683, 1685, 1686.
19. "Title IX Coordinator" means the employee of the University with major responsibility for Title IX compliance efforts and who is designated to handle complaints under Title IX.
20. "University" means The University of Texas at Austin. For the purposes of this chapter, "University" also includes all activities and programs sponsored by or affiliated with The University of Texas at Austin regardless of the actual location where such activities or programs occur, including but not limited to, field trips, internships, rotations, and clinical assignments.
21. "Vice President for Student Affairs" means the Vice President for Student Affairs of The University of Texas at Austin and is the administrative officer primarily responsible for the development and administration of policies relating to students, for the development and implementation of services to students, and for the initial preparation of institutional regulations that implement the Model Policy for Student Conduct and Discipline of The University of Texas System.
22. "Witness" means a person who may have information related to a complaint or referral.

## Subchapter 11–400. Prohibited Conduct

### Sec. 11–401. Conduct Expected of Students

As stated in subsection 11–101(a), the University's expectations for conduct are grounded in the University Code of Conduct and the Student Honor Code. While subchapter 11–400 outlines specific examples of prohibited conduct, the University expects from its students a higher standard of conduct than the minimum needed to avoid discipline.

### Sec. 11–402. Academic Dishonesty

- a. The dean of students or a faculty member may initiate disciplinary proceedings under subchapter 11–500 against a student accused of academic dishonesty.
- b. "Academic dishonesty" or "scholastic dishonesty" includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student or another individual (such as, but not limited to, submission of essentially the same written assignment for two classes or courses without the prior permission of the instructor), or the attempt to commit such an act.
- c. "Cheating" includes, but is not limited to, any actions or attempts to do the following:
  1. copying from another student's test, paper, project, or other assignment;
  2. failing to comply with instructions given by the person administering a test, project, or other assignment, or given in conjunction with the completion of course requirements;
  3. using or possessing materials that are not authorized by the person giving the test, project, or other assignment, including but not limited to class notes, calculators, electronic devices, and specifically designed "crib notes"; the presence of textbooks

constitutes a violation only if they have been specifically prohibited by the person administering the test;

4. providing aid or assistance to or receiving aid or assistance from another student, individual, or source, without authority, in conjunction with a test, project, or other assignment;
  5. discussing or providing information about the contents of a test with another student who will take the test;
  6. capturing or divulging the contents of a test or other assignment when the instructor has not given permission for students to keep or distribute such information;
  7. substituting for another person or permitting another person to substitute for oneself to take a class, a test, or any class-related assignment;
  8. using, buying, stealing, transporting, soliciting, or coercing another person to obtain answers to or information about an administered test, project, or other assignment;
  9. falsifying research data, laboratory reports, other academic work offered for credit, or work done in conjunction with the completion of course or degree requirements;
  10. taking, keeping, misplacing, or damaging the property of the University, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; or altering a test paper, project, or other assignment to gain an academic advantage.
- d. "Plagiarism" includes, but is not limited to, the appropriation of, buying, receiving as a gift, or obtaining by any means material that is attributable in whole or in part to another source without any indication of the original source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one's own academic work being offered for credit or in conjunction with a program course or degree requirements.
- e. "Collusion" includes, but is not limited to, unauthorized collaboration with another person in preparing academic assignments offered for credit, and collaboration with another person to commit a violation of any section of the rules on academic dishonesty.
- f. "Misrepresenting facts for academic advantage" to the University or an agent of the University or The University of Texas System includes, but is not limited to, providing false grades or résumés; providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment for the purpose of obtaining an academic or financial benefit for oneself or another individual; and providing false or misleading information in an effort to injure another student academically or financially.

### Sec. 11–403.

This section intentionally left without content to serve as a placeholder for future use.

### Sec. 11–404. General Misconduct

- a. Notwithstanding any action taken on account of the violation by civil authorities or agencies charged with the enforcement of criminal laws, the dean of students may initiate disciplinary proceedings under subchapter 11–500, or make an incident report and determine discipline under HOP 3-3031 when there is a finding of responsibility, against a student who
  1. **Local, State, or Federal Law Violations** - engages in conduct that may violate any provision of federal, state, or local laws, whether or not the violation occurs on University property or in connection with any University-oriented activity.
  2. **Firearms, Dangerous Materials and Prohibited Items** - possesses, uses, or displays firearms, facsimile firearms, ammunition,

explosives, or other items that could be used as weapons, including but not limited to sticks, poles, clubs, swords, shields, body armor or make shift body-armor, masks, helmets and other garments, such as sporting protective gear, that alone or in combination could be reasonably construed as weapons or body-armor on property owned or controlled by the University, without written permission from the dean of students, unless authorized by federal, State or local laws; or, violates Policy 8-1060, Campus Carry, of the Handbook of Operating Procedures.

3. **Harmful Behavior** - behaves in a manner that threatens or endangers the health or safety of any student or employee of the University, or of visitors to the campus.
4. **Sex or Gender Based Harassment** violates the University's prohibition of sex discrimination, sexual harassment, sexual assault, interpersonal violence (including domestic violence and dating violence) and stalking as contained in HOP 3-3031.
5. **Theft** - takes without authorization property of the University, property belonging to any student or employee of the University, or property of a visitor on the campus.
6. **Hazing** - violates the University's prohibition of hazing as contained in Chapter 14 of the *Institutional Rules*
7. **Alcohol Misconduct** - engages in unauthorized use or possession of alcoholic beverages in a University classroom building, laboratory, auditorium, library building, museum, faculty or administrative office, intercollegiate or intramural athletic facility, residence hall, or any other campus area (see Regents' *Rules and Regulations*, Rule 80102 for more information); or engages in the improper use, possession, or consumption of alcoholic beverages, including but not limited to underage possession of alcohol, underage consumption of alcohol, providing alcohol to a minor, public intoxication, minor driving under the influence of alcohol, driving while intoxicated.
8. **Illegal Drug Use and/or Possession** - engages in the use, possession, or sale of an illegal drug or narcotic, or possession of drug paraphernalia.
9. **Individual and/or Unauthorized Group Disturbance** - engages in speech, including but not limited to verbal, electronic, or written communication, that is directed to inciting or producing imminent lawless action and is likely to incite or produce such action.
10. **Unauthorized Access to Artificial Bodies of Water and/or Damage to Other Property** - enters, walks, runs, lies, plays, remains, or is in the water of any fountain or other artificial body of water on the University campus that is not designed and maintained for recreational or therapeutic purposes; dumps, throws, places, or causes to be placed any material, object, trash, person, animal, waste, or debris in the water of any fountain or other artificial body of water located on the University campus; or damages, defaces, or removes any portion of any fountain, monument, building, statue, structure, facility, tree, shrub, or memorial located on the University campus (see Regents' *Rules and Regulations*, Rule 80110 for more information).
11. **Other Harassment under Subsection 13-204 of the Institutional Rules (Speech, Expression, and Assembly) or HOP 3-3020** - engages in [harassment](#) (p. )
12. **Property** - engages in unauthorized use of property, including keys, equipment, resources, supplies, buildings, or facilities owned or controlled by the University or The University of Texas System, including unauthorized entry into property, buildings, or facilities owned or controlled by the University or The University of Texas System.
13. **Unauthorized Use of Institutional Technology** - engages in an inappropriate or disproportionate use of an information technology resource owned or controlled by the University or The University of Texas System or uses an information technology resource for an illegal, threatening, or intentionally destructive purpose; prohibited conduct includes, but is not limited to, circumventing system or network security, committing copyright infringement, transmitting unsolicited e-mail, sharing a University-issued password, falsifying an e-mail header, and using resources for personal financial gain or profit.
14. **Stalking** - A course of conduct directed at a specific person that would cause a reasonable person to fear for the person's safety or the safety of others or would cause that person to suffer substantial emotional distress. A "course of conduct" means two or more acts in which a person directly, indirectly or through third parties, by any action, method, device or means, follows, monitors, observes, surveils, threatens or communicates to or about a person or interferes with a person's property. "Reasonable person" means a reasonable person under similar circumstances and with similar identities to the complainant. "Substantial emotional distress" means significant mental suffering or anguish that may, but does not necessarily, require medical or other professional treatment or counseling. (Please note that Stalking here in 11-404(a)(14) is separate from the gender or sex-based stalking rule included in HOP 3-3031.)
15. **Gambling** - engages in or offers games of chance for money or other gain in violation of Texas law.
16. **Providing False and Misleading Information**
  - A. Engages in the falsification of academic records, including but not limited to altering or assisting in the alteration of any official record of the University or The University of Texas System and submitting false information or omitting requested information that is required for or related to any academic record of the University or The University of Texas System. Academic records include, but are not limited to, applications for admission, the awarding of a degree, registration materials, grade change forms, and reporting forms used by the Office of the Registrar. A former student who engages in such conduct is subject to a bar against readmission, revocation of a degree, and withdrawal of a diploma; or,
  - B. Furnishes false information to or withholds material information from any University official, faculty member, or staff member acting in the course of his or her duties; or,
  - C. Alters or assists in the alteration of any official nonacademic record or document, including parking permits and athletic tickets, of any University office or of The University of Texas System.
17. **Privacy Violation** - engages in surveillance or recording of any type without the subject's knowledge or consent in areas where there is a reasonable expectation of privacy and/or the broadcasting or distribution of such material including sexual exploitation as defined under Handbook of Operating Procedures 3-3031(VII)(B).
18. **Disruptive Conduct**
  - A. engages in conduct that interferes with or disrupts the student learning or teaching function of the University; or,
  - B. attempts to commit any violation of University rules or regulations, or to assist another person or persons in committing any violation of University rules or regulations; or,
  - C. behaves in a manner that impedes, interferes with, or disrupts any University teaching, research, administrative, disciplinary, public service, learning, or other authorized activity; and
  - D. that is not otherwise constitutionally protected speech.

## 19. Failure to Comply

- A. refuses to identify himself or herself to an institutional representative in response to a request when on any institutional property. A person identifies himself or herself by giving his or her name and complete address, substantiated by a current driver's license, voter registration card, or other official documentation, and by stating truthfully whether or not he or she is a student or employee of the University. An institutional representative includes any member of the Board of Regents; any executive officer or administrative officer of the system; any administrative officer of the University; and any attorney, peace officer, or security officer of The University of Texas System or the University acting pursuant to the authority of Texas law. See Regents' *Rules and Regulations*, Rule 80101, Number 2, Sections 3 and 4 for more information; or,
- B. engages in action that interferes with or obstructs the student disciplinary process. This includes, but is not limited to, failing to appear for a meeting when summoned by letter or e-mail to do so, failing to appear at or testify at a hearing, attempting to intimidate, harass, or unduly influence a potential witness or complainant, failing to timely complete educational outcomes assigned through the Restorative Practices Alternative under HOP 3-3031, and failing to complete disciplinary or administrative sanctions; or,
- C. refuses to identify one's self to a University official, faculty member, or staff member acting in an official capacity; or,
- D. engages in any prohibited conduct while suspended for disciplinary reasons.

20. **Violent Conduct** - engages in actual or threatened violent conduct against a person.
21. **Animal Cruelty** - engages in conduct with an animal that may violate any provision of federal, state, or local laws, whether or not the violation occurs on University property or in connection with any University-oriented activity.
22. **University System and Institutional Violations** - violates any provision of the Regents' *Rules and Regulations* of The University of Texas System, the rules and regulations of the University (including but not limited to administrative rules of campus offices), or specific instructions issued by an administrative official acting in the course of his or her authorized duties.
  - A. In the case of disruptive activity on the campus of the University, neither the dean of students nor the president nor any representative of them will negotiate or attempt to negotiate with any person or persons so engaged. When such a situation arises, the dean of students or the president, or their representative, will take immediate action to utilize all lawful measures to halt and eliminate any and all such disruptive activities that come to their attention, and may initiate disciplinary proceedings under subchapter 11–500. See Regents' *Rules and Regulations*, Rule 40502 for more information.
23. **Financial Misconduct** - the Writing of checks on accounts with insufficient funds, issuance of stop pays, disputed credit card chargebacks, or the nonpayment or delinquent payment of outstanding loans, purchases from campus stores, or failure to meet any other financial obligations to the University.
24. **Property Damage** - damages, defaces, destroys, or tampers with property of the University, property belonging to any student or employee of the University, or property of a visitor on the campus.

## Sec. 11–405. Prohibition on Retaliation

Retaliation against a person who reports a potential violation under the *Institutional Rules*, assists someone with a report of a violation, or participates in any manner in an investigation or in the resolution of a complaint made under the *Institutional Rules* is strictly prohibited and will not be tolerated. Retaliation includes but is not limited to threats, intimidation, reprisals and/or adverse actions related to an individual's employment or education. The University will take appropriate steps to assure that a person who in good faith reports, complains about, or participates in an investigation pursuant to this institutional rule will not be subjected to retaliation. Individuals who believe they are experiencing retaliation are strongly encouraged to file a complaint with the University.

## Subchapter 11–500. Disciplinary Procedures

### Sec. 11–501. Investigation

- a. When the dean of students receives information that a student has allegedly violated a Regents' *Rule*, University regulation, administrative rule, city ordinance, or state or federal law, the alleged violation will be preliminarily investigated. Upon completing the preliminary investigation, the dean of students may:
  1. dismiss the allegation as unfounded; or
  2. summon the student for a conference and, after conferring with the student:
    - A. dismiss the allegation; or
    - B. proceed administratively under Sec. 11–504 in every case where the proposed sanction is not a suspension, including suspension of rights and privileges, academic sanction, or expulsion and in other cases where the student elects an administrative disposition; or
    - C. prepare a complaint based on the allegation and proceed under subchapter 11–600 in cases where the proposed sanction is suspension, including suspension of rights and privileges, academic sanction or expulsion and the student does not waive his or her right to a hearing.
- b. Any student who reports allegations of sex discrimination, sexual harassment, sexual assault, sexual misconduct, interpersonal violence (including domestic violence and dating violence), stalking, or Track C related allegations, either as a complainant or a third party witness, will not be subject to disciplinary action by the dean of students for using and/or consuming alcohol or drugs at or near the time of the alleged incident, provided that any such alcohol or drug use did not, and do not, place the health or safety of any person at risk.
- c. All proceedings will provide a prompt, fair and impartial investigation and resolution.
- d. Track C allegations will be investigated in accordance with the procedure described in HOP 3-3031 and referred to the dean of students for disciplinary decision. Track C allegations may be resolved through the Restorative Practices Alternative in HOP 3-3031 rather than a formal investigation process.
- e. **Scientific Misconduct or Misconduct in Other Scholarly Research**
  1. If the information received by the dean of students makes allegations of possible misconduct in scientific or other scholarly research, the dean of students will refer the information to the Vice President for Research and/or the Research Integrity Officer for further investigation in accordance with the Handbook of Operating Procedures, 7-1230. The purpose of the investigation is to: explore in detail the allegations; examine the evidence in depth; and, determine specifically whether misconduct has been committed, by whom, and to what extent. The investigation also will determine whether there are additional instances of possible misconduct that would justify broadening the scope beyond the initial allegations. The findings of the investigation will be

set forth in an investigation report. The investigative report will then be provided by to the dean of students for adjudication of any academic integrity violations that may be outlined in the investigative report.

2. Additional Information regarding the Scientific Misconduct or Misconduct in Other Scholarly Research can be found at <http://www.policies.utexas.edu/policies/misconduct-science-and-other-scholarly-activities>

f. Investigations involving students enrolled in the Dell Medical School

1. If the dean of students receives a referral involving a student enrolled in the Dell Medical School, the dean of students will notify the dean of the Dell Medical School or his/her designee. Prior to the final resolution of an incident involving a student enrolled in the Dell Medical School, the dean of students shall consult the dean or designee to determine appropriate sanctions consistent with the professional standards outlined by the Dell Medical school and other applicable university rules.
2. Additional information regarding the professional standards of the Dell Medical School can be found at <https://dellmed.utexas.edu/student-policies>.

### Sec. 11–502. Interim Disciplinary Action

- a. Pending a hearing or other disposition of the allegations against a student, if the continuing presence of the student is a potential danger to persons or property or a potential threat of disrupting the academic process or any activity authorized by the University, or in cases where actual or threatened violent conduct against a person is alleged, the dean of students may take such immediate interim disciplinary action as is appropriate to the circumstances. Appropriate actions include, but are not limited to, suspending the right of the student to be present on the campus (including to live in campus residence halls) and to attend classes, and otherwise altering the status of the student.
- b. A student who is suspended or whose status is altered under subsection 11–502(a) may meet with the dean of students to contest the interim disciplinary action taken by the University. A request for a meeting under this subsection must be made, in writing, within five days after the interim disciplinary action was taken. If requested by the student, such a meeting generally will be conducted within ten days after the request for a meeting is made, unless the student agrees in writing to a meeting at a later time. At the discretion of the dean of students, the ten-day period may be extended for a period not to exceed an additional ten days.
  1. During the meeting with the dean of students, the student may present documentation or other evidence for review by the dean of students in consideration of lifting or altering the interim disciplinary action. The dean of students shall issue a written decision within seven days of the meeting regarding whether the University's decision to take interim disciplinary action should be reversed, altered, or otherwise left unchanged.
  2. The student may appeal the decision issued by dean of students under subsection 11-502(b)(1) by submitting a written appeal to the Appellate Officer within three days from the date the dean of students issues his/her decision. The appeal will be reviewed solely on the basis of the written record of the case, any written materials submitted by the student, and the response to the appeal, if any, submitted by the dean of students. Oral argument will not be considered.
  3. The decision of the Appellate Officer will be communicated in writing to the accused student and the dean of students within seven days after the appeal has been received by the Appellate Officer. Appellate Officer may approve, reject, or modify

the interim disciplinary action in question or may require that the original decision be reconsidered for the presentation of additional evidence. The decision of the Appellate Officer shall be final.

- c. A student who is suspended or whose status is altered under subsection 11–502(a) is subject to further disciplinary action for prohibited conduct that takes place during the period of interim disciplinary action imposed under 11-502(a).

### Sec. 11–503. Summoning a Student

- a. The dean of students may summon a student to appear in connection with an alleged violation by sending a message to the student by letter or by e-mail at an address listed in the registrar's records.
- b. The message will direct the student to appear at a specific time and place at least three days after the date of the message if the message is sent by letter, or at least two days after the date of the message if the message is sent by e-mail. In cases involving allegations of actual or threatened violent conduct against a person, or Track C cases, the dean of students has the right to summon the student at least one day after the date of the message, by email, or phone number listed in the registrar's records.
- c. The dean of students may bar or cancel the enrollment or otherwise alter the status of a student (or of a former student as described in subsection 11–300(16) who fails without good cause to comply with a summons sent under subsection 11–503(a) until the student complies with the summons. A letter sent to an address listed in the registrar's records, a letter hand-delivered to the student, or an e-mail message sent to the address listed in the registrar's records will constitute full and adequate notice. The student's failure to provide and to maintain current addresses, refusal to accept delivery of a letter, or failure to receive an e-mail message because the mailbox is full or the message is inappropriately forwarded will not constitute good cause for failure to comply with the summons. Policies on the use of e-mail for official correspondence are given in [Appendix M](#) (p. 159).
- d. If an accused student fails to appear as directed in a summons the dean of students may proceed with a hearing before a hearing officer based upon the information available.

### Sec. 11–504. Administrative Disposition by the Dean of Students of Disciplinary Violations

Administrative disposition shall be used in cases where the proposed sanction is a sanction other than suspension, including suspension of rights and privileges, academic sanction, or expulsion and may be used in cases where the proposed sanction is suspension, including suspension of rights and privileges, academic sanction, or expulsion if the accused student agrees to waive his right to a hearing.

- a. In cases where the accused student does not dispute the facts upon which the charges are based, the proposed sanction is not suspension, including suspension of rights and privileges, academic sanction or expulsion and the student agrees to the proposed sanction, the administrative disposition shall be final and there shall be no appeal of the finding of misconduct or the sanction.
- b. In cases where the accused student disputes the facts upon which the charges are based and the proposed sanction is not suspension, including suspension of rights and privileges, academic sanction, or expulsion the dean of students will inform the student of the charges, evidence, findings, and proposed sanction(s); give the student the opportunity to meet with the dean of students or his or her delegate to provide evidence. The dean of students will review all evidence, including the student's response to the allegation, and determine whether the preponderance of evidence supports a finding that a

violation occurred. If a violation is deemed to have occurred, the dean of students will assess sanction(s) pursuant to subchapter 11-700 that is appropriate given the allegation and the student's disciplinary record, if any. The administrative disposition may be appealed to the appellate officer. Both the finding of violation and/or the sanction may be appealed. If the accused student does not make a decision within five days of receiving notice of the administrative outcome, the matter shall be final and the student must comply with the assessed sanctions issued by the dean of students or designee.

- c. An administrative disposition may be used in cases where the proposed sanction is suspension, including suspension of rights and privileges, academic sanction, or expulsion. A student who wishes to resolve his or her disciplinary case through an administrative disposition with the dean of students must waive his or her right to hearing reserving his or her right to appeal only the assessed sanction or sanctions to the appellate officer in accordance with Sec. 11-803. A student who does not accept the administrative disposition developed as described in Sec. 11-504 shall resolve the disciplinary case through a hearing before either a hearing officer or, in academic dishonesty or general misconduct cases, a panel of the SCB in accordance with subchapter 11-600.
- d. If the student fails to complete the assigned sanction or sanctions, the dean of students may pursue a separate rule violation under subsection 11-404(a)(19B) and/or place a bar on the student's registration until the sanction is completed.
- e. In Track C cases, the dean of students, subject to the Family Educational Rights and Privacy Act (FERPA) and other applicable law, shall:
  1. proceed to resolve the matter before a hearing officer unless both the accused student and the complainant agree to waive the hearing procedures in accordance with subsections 11-504(b) or 11-504(c).
  2. inform the accused student and complainant as to any disposition of the case or if the accused student or complainant has chosen to proceed to a hearing.

### **Sec. 11-505. Disposition by Faculty Members of Academic Violations**

- a. When a faculty member has reason to suspect that a student has violated University regulations concerning academic dishonesty as defined in Sec. 11-402, the faculty member may:
  1. refer the case to the dean of students, who will proceed under Sec. 11-501; or
  2. meet with the student(s) involved and discuss the alleged violation(s), the documentation and/or information that supports the charge, and the rights of the student(s) in the disciplinary process. After conferring with the student, the faculty member may dismiss the allegation or proceed under subsection 11-505(b) or subsection 11-505(c).
- b. In any case where a student accused of academic dishonesty disputes the facts upon which the charges are based, chooses not to waive the right to a hearing, or chooses to have the case resolved by the dean of students, the faculty member will refer the matter to the dean of students, who will then proceed under Sec. 11-501.
- c. With the agreement of both the accused student and the faculty member, a case of academic dishonesty may be resolved through a faculty disposition. A resolution through a faculty disposition does not limit the possibility of additional sanctions being issued by the dean of students as dictated in subsection 11-505(d). Faculty dispositions are used in situations where the accused student does not dispute the facts upon which the charges are based, and the student signs a written waiver of the hearing. If, after hearing the accused student's response to the allegation, the faculty member determines that the preponderance of evidence supports a finding

that a violation has occurred, the faculty member will assess a sanction or sanctions pursuant to Sec. 11-702(a). After the student signs the faculty disposition, the faculty member shall send the signed form, the signed waiver of the hearing, and all relevant documentation (including copies of the academic assignment and course syllabus) to the dean of students. In extraordinary circumstances, if the sanction issued in a faculty disposition falls well outside the general scope of sanctions issued in similar cases, the dean of students may communicate with the faculty member to discuss a different sanction.

1. A student who resolves a disciplinary case through a faculty disposition must sign a written waiver of a right to a hearing and may appeal only the assessed sanction or sanctions to the appellate officer in accordance with Sec. 11-802.
  2. A student who resolves a disciplinary case through a faculty disposition may be placed on academic integrity probation, in addition to the sanction assessed by the faculty member.
- d. In situations where the dean of students receives a faculty disposition signed by both parties, the dean of students may seek to impose a disciplinary sanction or sanctions in addition to the one assessed in the faculty disposition. Additional sanctions may be levied when the student has a prior disciplinary history or in other situations deemed appropriate by the dean of students. When assessing an additional disciplinary sanction, the dean of students may impose any general sanctions listed in Sec. 11-701 or Sec. 11-703 or any grade-related sanctions listed in subsection 11-702(a). A student who has been issued an additional sanction by the dean of students after signing a faculty disposition may elect to appeal both the grade-related sanction issued in the faculty disposition under Sec. 11-802 and appeal the additional sanction(s) issued by the dean of students as dictated by Sec. 11-803.

### **Sec. 11-506. Pending Academic Investigations and Q-Drops**

- a. A student may not drop a class if there are any pending investigations of Academic Dishonesty for the class in question.
- b. Any drop assigned will not be considered final until any investigations of Academic Dishonesty for the class in question are resolved.
- c. Any student who is found responsible for committing academic dishonesty and issued any sanction(s) will not be eligible to drop the class associated with the violation.
- d. Any student who is found responsible for committing academic dishonesty and issued any grade-related sanction(s) will not be eligible to change the course grade to Pass/Fail or to Credit/No Credit.

### **Sec. 11-507. Alcohol and Drug Medical Amnesty Policy**

Any student who seeks emergency medical assistance for him or herself or others for potential drug or alcohol emergencies may not be subject to formal disciplinary action under this Chapter provided the student: (i) calls 911 when drug or alcohol poisoning is present or suspected; and (ii) stays with the person until medical assistance arrives and cooperates with all emergency and law enforcement personnel. In the event a student calls emergency medical services for another student experiencing a potential drug or alcohol-related medical emergency, the student who experienced the medical emergency may not be subject to formal disciplinary action under this Chapter, as well.

Students eligible for amnesty will be required to participate in an educational program and may be referred for individual drug and/or alcohol counseling, but may otherwise avoid formal disciplinary action under this Chapter. Students who receive amnesty who decline or fail to attend the educational component or fail to comply with a counselor's recommendations will become subject to formal disciplinary

action under this Chapter. Student Conduct and Academic Integrity will evaluate students' eligibility for amnesty under this policy; amnesty is not automatic. Students may receive amnesty under this policy on more than one occasion.

This amnesty policy applies only to university rules and policies; it does not preclude or prevent police or other legal actions except if the medical assistance is related to a sexual assault as outlined in Texas Alcoholic Beverage Code, sections 106.04 and 106.05. This policy does not apply to other prohibited behavior such as the sale of an illegal drug or narcotic.

### **Sec. 11-508. Additional Amnesty Policy for Reporting of Certain Violations**

Per Texas Education Code Section-51.9366, the University may not take any disciplinary action against a student for a violation of the Institutional Rules under this chapter, who in good faith reports to the institution being the victim of, or witness to, an incident of sex discrimination, sexual harassment, sexual assault, interpersonal violence (domestic violence and dating violence), stalking, or other Track C related allegations. This policy applies to any violation of the Institutional Rules that occurred at or near the time of incident, regardless of the location at which the incident occurred or the outcome of the disciplinary process.

A determination that a student is entitled to amnesty is final and may not be revoked. This policy does not apply to a student who reports the student's own commission or assistance in the commission of sex discrimination, sexual harassment, sexual assault, interpersonal violence (domestic violence and dating violence) or stalking, or Track C related allegations.

### **Subchapter 11–600. Hearing**

An accused student may choose to have the allegations heard by either a hearing officer or SCB in cases where the proposed sanction is suspension, academic sanction or expulsion. The SCB shall not hear matters pertaining to Track C or violent conduct violations. The accused student must request a hearing and select their choice of either a hearing officer or SCB within 5 days of receipt of the administrative disposition. If a student fails to make a decision regarding preference of hearing body, a hearing officer will be assigned after the 5-day deadline.

### **Sec. 11–601. Duties of the Hearing Officers and Student Conduct Board**

- a. The hearing officer and student conduct board chair will preside over the hearing and will
  1. determine whether the dean of students has satisfied the requirements of Sec. 11–603;
  2. rule on the admissibility of evidence and on objections to the procedure during the hearing;
  3. facilitate the hearing process, which includes the authority to remove anyone from the hearing who is disrupting the process;
  4. issue a written decision that identifies the finding of fact and determination as to whether a student is responsible or not for a policy violation;
  5. assess a sanction or sanctions.
- b. The hearing officer and SCB may question all hearing participants.
- c. The hearing officer and SCB is entitled to have the advice and legal counsel from the Office of General Counsel of The University of Texas System.

### **Sec. 11–602. Duties of the Dean of Students**

The dean of students will

- a. set the date, time, and place for the hearing and notify the accused student of the date, time, and place;

- b. record the hearing; and
- c. establish hearing procedures that will be shared with an accused student in advance of the hearing. These procedures include, but are not limited to, established deadlines for submission of supporting documentation/evidence, list of witnesses called by the accused student, role of the advisor and hearing logistics.

### **Sec. 11–603. Student Rights and Responsibilities**

The accused student has the right

1. to have an advisor at the hearing;
2. to challenge the objectivity of the hearing officer or the members of the SCB panel designated to hear the charges;
3. to know the identity of each witness who will participate in the hearing;
4. to present documentation and other supporting information, and to argue on his or her own behalf;
5. to question each witness who appears at the hearing and testifies; and
6. to appeal under Sec. 11-804.

### **Sec. 11–604. Notice of Hearing**

- a. The dean of students will notify the accused student by letter or by e-mail of the date, time, and place for the hearing. The notice will be sent to the student's information listed in the registrar's records. Policies on the use of e-mail for official correspondence are given in Appendix M.
- b. The student shall be given at least 10 days notice of the time, date and place for the hearing.
- c. In Track C cases and cases involving allegations of actual or threatened violent conduct against a person, the notice will specify a hearing date of at least 5 days after the date of the letter or e-mail message.
- d. Notice sent under subsection 11–604(a) will:
  1. state the time, date, and place for the hearing;
  2. contain the name of the hearing officer or the names of the SCB panel appointed to hear the matter;
  3. contain the names of witnesses who may testify against the accused student;
  4. a brief summary of the testimony to be given each;
  5. a list of documentation that will be presented during the hearing; and
  6. contain a copy of the complaint, which outlines the alleged violation(s).
- e. In Track C cases, the dean of students shall provide, subject to the Family Education Rights and Privacy Act (FERPA) and other applicable law, if applicable, to the complainant the same notice given to the accused student. The complainant shall be advised in such cases that he or she has the right to:
  1. attend and participate in the hearing;
  2. have past sexual history with third parties excluded from evidence;
  3. provide testimony at the hearing in a manner that does not require the complainant to directly confront or to be directly questioned by the accused student while still preserving the accused student's right to challenge such testimony, including but not limited to the dean of students to providing testimony on the complainant's behalf;
  4. a live hearing, conducted with all parties physically present in the same geographic location, or at the dean of students' discretion, any or all parties, may appear at the live hearing virtually;
  5. have an advisor at the hearing;

6. appear in person and have an advisor at the hearing;
  7. work with and provide input to the dean of students office regarding witnesses and their testimony as well as other relevant evidence and argument in preparation for the hearing and any subsequent appeals;
  8. know the outcome of the hearing decision;
  9. appeal the hearing decision; and
  10. submit a response to the accused student's appeal.
- f. In situations where a student fails to attend a scheduled hearing, the hearing officer or SCB will determine if the dean of students provided notice per subsection 11-604(b) and will hold the hearing without the student's participation.

### **Sec. 11–605. Preliminary Matters for a Hearing**

- a. Allegations against more than one student that arise out of a single incident or course of conduct may be heard together, or a student may request a separate hearing. This request must be made directly to the dean of students.
- b. An accused student must furnish the dean of students with a list of any witnesses who may testify on their behalf, including a summary of each witness's testimony, and provide any supporting documentation for use in the hearing at least 3 days in advance of the proceeding. If the student has an advisor, the name of the advisor and the advisor's relationship to the student must also be provided with the other preliminary information.
- c. In Track C cases and cases involving allegations of actual or threatened violent conduct against a person, the complainant may furnish the dean of students with a list of any witnesses who may testify on behalf their behalf, together with a summary of each witness's testimony and a copy of any documents and other evidence the witness may offer. This information must be provided at least three days in advance of the hearing. At least two days before the hearing, the dean of students will provide the accused student with access to documents that may be introduced at the hearing.
- d. In Track C cases, subject to the Family Education Rights and Privacy Act (FERPA) and other applicable law, copies of the information and/or documents submitted by the accused student and the dean of students as required by this section shall be promptly provided, if applicable, to the complainant. The complainant may submit a request to close the hearing to the hearing officer prior to the hearing. The complainant will furnish the name of his/her advisor, if any, to the hearing officer prior to the hearing.
- e. A student may request a hearing postponement to the dean of students. The student must provide a compelling reason for the requested postponement, including, but not limited to, a procedural error, an emergency situation, or a documented academic impact that would prevent the student from participating. The dean of students will determine whether or not a postponement will be granted, and if possible based upon the timing of the request, will notify all parties of the decision as soon as possible.

### **Sec. 11–606. Challenges to the Hearing Officer or Members of the SCB Panel**

The accused student may challenge the hearing officer or any member of the SCB panel for an alleged lack of fairness or objectivity but is not entitled to disqualify that person from serving. In Track C cases, the complainant may through the Office of the Dean of Students, also challenge the hearing officer on the basis of a lack of fairness and objectivity. The challenge must be in writing, must state the reasons for the challenge, and must be submitted to the hearing officer or the foreperson of the SCB panel through the dean of students at least three days prior to the hearing. It will be up to the hearing officer or the challenged members(s) of the SCB panel, communicated in a

written response, to determine whether they can serve with fairness and objectivity. If the challenged person disqualifies themselves, another hearing officer or SCB panel member will be appointed.

### **Sec. 11–607. Hearing Procedure**

- a. The dean of students establishes hearing procedure. This procedure will be provided to the student in advance of the hearing. The hearing procedure will include the following:
  1. statement of the allegations;
  2. review of student rights in the process, including the standard of evidence;
  3. a presentation of the case and summary of the investigation by the dean of students;
  4. calling of witnesses by the dean of students;
  5. the accused student will have the opportunity to make an opening statement and present his or her witnesses and supporting information;
  6. the accused student, dean of students and the hearing officer or SCB may all ask questions of each witness presented;
  7. the dean of students and the accused student are each given the opportunity to present rebuttal evidence and argument;
  8. the dean of students and accused student are given the opportunity to present a recommendation on a sanction or sanctions;
  9. the dean of students and accused student are given the opportunity to present a closing statement;
  10. the hearing officer or a majority of the panel of the SCB decides whether a violation has occurred and assesses a sanction or sanctions in accordance with subchapter 11–700.
- b. In Track C cases, the following additional rights and procedures apply:
  1. the complainant may attend the hearing;
  2. the hearing officer shall inform the complainant of his or her rights as listed in subsections 11-604(e)(2) and 11-608(d);
  3. the complainant may have an advisor present during the hearing;
  4. the complainant has the right to have past sexual history with third parties excluded from evidence;
  5. the complainant is given the opportunity to make an opening statement and has the right to reserve his or her opening statement until after the dean of students has presented the University's case;
  6. the complainant has the right to question any of the dean of students' witnesses and any of the accused student's witnesses;
  7. the complainant is given the opportunity to present his or her witnesses and evidence; during this time, the dean of students and the accused student may question any of the complainant's witnesses;
  8. the complainant is given the opportunity to present rebuttal evidence and argument;
  9. the complainant is given the opportunity to present a rebuttal to the dean of students' recommendation for sanction or sanctions;
  10. the complainant is given the opportunity to present a closing statement;
  11. the hearing will be closed at the complainant's request.

### **Sec. 11–608. Evidence in Hearings**

- a. Legal rules of evidence do not apply to university hearings for alleged violations of institutional rules.
- b. The standard of evidence in all university hearings is preponderance of the evidence.

- c. During the hearing, the hearing officer or the foreperson of the SCB panel may admit and give effect to any evidence, including testimony and documentary evidence. The hearing officer or the foreperson of the SCB panel will exclude irrelevant, immaterial, and unduly repetitious evidence. All evidence admitted during the hearing will be made a part of the record.
- d. In Track C cases, the complainant shall be allowed to provide testimony at the hearing in a manner, as determined by the hearing officer, that does not require the complainant to directly confront or be directly questioned by the accused student while still preserving the accused student's right to challenge such testimony. In addition, evidence of the complainant's past sexual history with third parties will be excluded.
- e. Upon a hearing of the allegations, the student conduct representative has the burden of going forward with the evidence and the burden of proving the charges by the preponderance of evidence. The hearing officer or a majority of the SCB panel will decide whether a violation has occurred and assess an appropriate sanction or sanctions solely on the basis of admitted evidence. The accused student's disciplinary record is deemed admitted into evidence during a hearing to help the hearing officer or the SCB panel assess an appropriate sanction or sanctions. The decision as to the accused student's responsibility for the violation at issue will be based solely on the evidence that pertains to that particular violation.

### Sec. 11–609. Disciplinary Decision

The hearing officer or the majority of the SCB panel will render a written decision as to whether the accused student has committed a violation and will set forth findings of fact in support of the decision. The sanction or sanctions will also be stated in the decision. The accused student and the dean of students will each be given a copy of the decision. The written decision is the official decision on the matter from which any appeal is taken. The hearing officer or the majority of the SCB panel should make every effort to complete the written decision within ten days of the hearing. If the hearing officer or the majority of the SCB panel is unable to issue the written decision within ten days, he or she (or in case of a SCB panel, the foreperson) should contact both the accused student and the dean of students to provide a date for completion of the written decision.

In Track C cases, subject to the Family Education Rights and Privacy Act (FERPA) and other applicable law, the dean of students shall, upon receipt of the hearing officer's decision, forward copies of the decision to the complainant, if applicable.

In cases involving allegations of crimes of violence, as defined in the Family Education Rights and Privacy Act (FERPA) and other applicable law, the dean of students shall notify the alleged victim(s) of the final outcome.

### Sec. 11–610. Hearing Record

The hearing record consists of

- 1. a copy of the notice required under Sec. 11–604;
- 2. the recording of the hearing and/or the transcript, if any, together with all evidence admitted under Sec. 11–608;
- 3. a copy of the complaint/hearing letter, written motions and pleas; and
- 4. the disciplinary decision of the hearing officer or the majority of the SCB panel.

## Subchapter 11–700. Sanctions

### Sec. 11–701. Authorized Disciplinary Sanctions

- a. The dean of students, under subchapter 11–500, or the hearing officer or the majority of an SCB panel, after a hearing under subchapter 11–600, may impose one or more of the following sanctions for violation of the University's expectations of conduct
  - 1. written warning;
  - 2. disciplinary probation;
  - 3. academic integrity probation;
  - 4. withholding of grades, official transcript, and/or degree;
  - 5. bar against readmission, bar against enrollment, withdrawal from the University or from a period of enrollment, and/or drop from one or more classes;
  - 6. restitution or reimbursement for damage to or misappropriation of University or University of Texas System property;
  - 7. suspension of rights and privileges, including, but not limited to, participation in athletic or extracurricular activities and residing in or entering University housing;
  - 8. an Academic Sanction including, but not limited to, a failing grade for a test, an assignment, or a class, cancellation of all or part of previously earned course credit;
  - 9. denial of degree;
  - 10. deferred suspension;
  - 11. suspension from the University for a specified period of time;
  - 12. expulsion (permanent separation from the University);
  - 13. other sanction or sanctions as deemed appropriate under the circumstances.
- b. If a violation of the University's *Institutional Rules*, other than subsection 11–404(a)(11) of this chapter or Sec. 13–204 of the *Institutional Rules*, is committed because of the race, color, religion, national origin, age, disability, citizenship, veteran status, of a student or students directly harmed by the violation, such a discriminatory purpose will be treated as an aggravating factor for the purpose of determining the appropriate sanction or sanctions under subsection 11–701(a). For a complete set of cross-references to all regulation of harassment on the campus, see subsection 13–204 (covering verbal harassment) of the *Institutional Rules* and 3-3031(V)(D) (covering harassment based on gender, sexual orientation, gender identity, or gender expression) of the Handbook of Operating Procedures.

### Sec. 11–702. Authorized Academic Sanctions

- a. When a student signs a faculty disposition under Sec. 11–505 for conduct constituting academic dishonesty as defined in Sec. 11–402, the faculty member or the academic dean responsible for the class may impose one or more of the following grade-related sanctions:
  - 1. no credit or reduced credit for the paper, assignment, or test in question;
  - 2. retaking of examination or resubmission of assignment;
  - 3. failing grade or reduced final grade for the class.
- b. When a student signs an administrative disposition with the dean of students under Sec. 11–504 or is found by a hearing under subchapter 11–600 to have committed academic dishonesty as defined in Sec. 11–402, the dean of students, the hearing officer or a majority of the SCB panel, as the case may be, may impose any of the grade-related sanctions listed in subsection 11–702(a) and impose any of the general sanctions listed in Sec. 11–701 or 11-703.
- c. If a student resolves his or her disciplinary case through a faculty disposition under Sec. 11–505, or an administrative disposition with the dean of students under Sec. 11–504, or is found by a hearing officer or an SCB panel under subchapter 11–600 to have committed

academic dishonesty as defined in Sec. 11–402, the student may be placed on up to one year of academic integrity probation, in addition to any other sanction assessed by the faculty member, the dean of students, or the hearing officer or the SCB panel. If the student has been found responsible for two or more academic dishonesty violations, suspension or expulsion as a potential sanction will be considered.

- d. If a student is found responsible for a violation under Sec. 11-702 and is also enrolled in an academic program requiring a supplemental application in conjunction with application to UT Austin, a minimum grade point average to matriculate through the program as defined in the Undergraduate Catalog, and a signed commitment to adhere to a program-specific honor code and/or code of conduct, removal from the program as a potential sanction will be considered by the dean of students.

### Sec. 11–703. Pending Actions and Definition of Authorized Sanctions

- a. The dean of students, the hearing officer or a majority of the SCB panel may withhold an official transcript, grade, diploma, or degree of a student alleged to have committed a violation of a rule or regulation of The University of Texas System or the University that would reasonably allow the imposition of such sanction. The dean of students may take such action pending a hearing, resolution by administrative disposition, and/or exhaustion of appellate rights when, in the opinion of the dean of students, the best interests of The University of Texas System or the University would be served by this action.
- b. As appropriate under the circumstances, the dean of students, the hearing officer or a majority of the SCB panel may impose a bar against the student’s readmission or enrollment, may drop the student from one or more classes, or may withdraw the student from the University or from a period of enrollment. This bar may be temporary or permanent in nature. One or more of these sanctions may also be imposed on a student who fails to respond to a summons by the dean of students to discuss an alleged violation of the Regent’s *Rules and Regulations*, University regulation, administrative rules, or the University’s expectations of conduct. If imposed for failure to respond to a summons, the sanction or sanctions may be reversed when the student responds to the summons as requested.
- c. “Written warning” means that the student has been notified that he or she has engaged in behavior that violated a rule or regulation of The University of Texas System or the University and that a further violation or violations of the regulations may result in more severe disciplinary action. The dean of students, the hearing officer or a majority of the SCB panel may impose conditions related to the offense, such as counseling, educational seminars, or unpaid work assignments. Failure to meet the condition(s) will be considered an additional violation.
- d. “Disciplinary probation” is a specified period of time during which the student is required to comply with specified terms and conditions that include not engaging in further conduct that would violate a rule or regulation of The University Texas System or the University. A further violation or violations will result in consideration of suspension. The dean of students, the hearing officer or a majority of the SCB panel may impose conditions related to the offense, such as reporting to the dean of students on a regular basis, counseling, educational seminars, or unpaid work assignments. Failure to meet the condition(s) will be considered an additional violation.
- e. “Academic integrity probation” is a specified period of time during which the student is required to comply with specified terms and conditions that include not engaging in further academic conduct that would violate a rule or regulation of The University Texas System

or the University. A further academic violation or violations during this time could result in the student’s suspension or expulsion. The dean of students, the hearing officer or a majority of the SCB panel may impose conditions related to the offense, such as reporting to the dean of students on a regular basis, counseling, or educational seminars. Failure to meet the condition(s) will be considered an additional violation.

- f. “Restitution” is reimbursement for damage to or misappropriation of University property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damages. Other than in extraordinary circumstances deemed necessary by the dean of students, the University will not facilitate restitution between individuals for conduct-related occurrences.
- g. Suspension of rights and privileges is an elastic sanction. The dean of students or the hearing officer may impose limitations to fit the particular case, as in the suspension of rights and privileges to enter or reside in University housing facilities. Suspension of eligibility for official athletic and nonathletic extracurricular activities prohibits the student on whom it is imposed, during the period of suspension, from joining a registered student organization; from taking part in a registered student organization’s activities or attending its meetings or functions; and from participating in an official athletic or nonathletic extracurricular activity.
- h. A failing grade or other academic sanction may be assigned to a student for a class in which he or she is found to have violated the University’s regulations regarding academic dishonesty.
- i. A student found to have violated the University’s regulations regarding academic dishonesty may be denied his or her degree. If the disciplinary process under this chapter is initiated while the accused student is completing required work for a degree but will not be resolved until after the completion of all required work for a degree, the accused student may be denied his or her degree until the completion of the disciplinary process.
- j. Deferred suspension permits the sanction of suspension to be deferred for a student for who there are mitigating circumstances as determined by the dean of students, the hearing officer or a majority of the SCB panel. If a student is found to have violated any rule of the University or The University of Texas System while the sanction of deferred suspension is in effect, the sanction for such a violation may be immediate suspension except in extraordinary circumstances as deemed appropriate by the dean of students. The dean of students, the hearing officer, or a majority of the SCB panel may impose conditions related to the offense, and failure to meet such conditions will be considered an additional violation.
- k. Suspension from the University prohibits the student on whom it is imposed, during the period of suspension, from entering the University campus without prior written approval of the vice president for student affairs, from being initiated into an honorary or service organization, and from receiving credit for academic work done during the period of the suspension. Suspension is noted on the official transcript during the term of suspension and shall remain until all conditions of the suspension are met. The notation can be removed upon the request of the student but only after the student’s successful completion of the terms of the suspension. The request for the removal of the transcript notation of suspension should be directed to the Office of the Dean of Students. Suspension may also prohibit the student from being admitted to, enrolling at, or entering the campus of another component institution of The University of Texas System without prior written approval of the chief student affairs officer of the institution at which the student wishes to be present. The dean of students, the student’s home department or school and/or the Office of the Registrar may, however, permit the student to receive credit for academic work completed at another institution during the period of suspension, except in cases where

suspension is imposed for academic dishonesty. The dean of students, the hearing officer or a majority of the SCB panel may impose additional conditions or sanctions related to the alleged offense, and failure to meet such conditions or terms of the sanction will be considered an additional violation.

- l. Expulsion is a permanent separation from the University and prohibits the student on whom it is imposed from entering the University campus without prior written approval of the vice president for student affairs. Expulsion may prohibit the student from being admitted to, enrolling at, or entering the campus of another component institution of The University of Texas System without prior written approval of the chief student affairs officer of the institution at which the student wishes to be present. A permanent notation of expulsion will also be placed on the student's official transcript.
- m. The academic transcript of a student suspended or expelled for disciplinary reasons shall be marked with "Disciplinary Suspension" or "Expulsion" as appropriate. The University shall maintain a permanent written disciplinary record for every student assessed a sanction of suspension, expulsion, denial or revocation of degree, and/or withdrawal of diploma. A record of scholastic dishonesty shall be maintained for at least five years, and disciplinary records required by law to be maintained for a certain period of time, i.e. Clery violations, shall be maintained for at least the time specified in the applicable law, unless the record is permanent in conjunction with the above stated sanctions.
- n. Other sanctions may be imposed when, in the opinion of the dean of students, the hearing officer or a majority of the SCB panel, the best interests of The University of Texas System or the University would be served.

## **Subchapter 11–800. Appeal**

### **Sec. 11–801. Request for Appeal**

- a. The accused student may request to appeal a sanction assessed by a faculty member under subsection 11–505(c) to the appellate officer.
- b. The accused student may request to appeal an administrative disposition by the dean of students under subsection 11-504(b) to the appellate officer.
- c. The accused student may request to appeal a sanction assessed by the dean of students under subsection 11–504(c), 11–505(b), 11-505(c)(1) or 11-505(d) to the appellate officer.
- d. Either the dean of students or the accused student may request to appeal a disciplinary decision issued by a hearing officer or a panel of the SCB under Sec. 11–609 to the appellate officer.
- e. In Track C cases, the complainant has the same independent right to appeal the hearing officer's decision as does the accused student.
- f. The accused student, complainant, or dean of students may only appeal an administrative disposition or disciplinary decision based only on one or more of the following grounds:
  - 1. Significant procedural error inconsistent with the processes as outlined in subchapters 11-500 and 11-600.
  - 2. Discovery of any new information unknown or not reasonably foreseeable to the accused student or the dean of students at the time of the hearing that was material to and could have reasonably impacted the disciplinary decision.
  - 3. The sanction(s) determined by the dean of students, hearing officer, or SCB are significantly disproportionate to the violation.
- g. The appellate officer shall determine if sufficient grounds for appeal exist under section 11-801(f). If not, the appellate officer will deny the request for appeal thereby sustaining the original decision. If

sufficient grounds for appeal exist, the appellate officer will review the appeal in full and issue a final decision.

### **Sec. 11–802. Appeal of Academic Sanctions Assessed by a Faculty Member**

- a. The accused student may appeal the sanction or sanctions assessed by a faculty member under subsection 11–505(c)(1) by submitting a written appeal to the appellate officer within ten days from the date on which the student signed the disciplinary decision. Appeals submitted after 5:00 pm will be received the next day. The written appeal must state the specific reasons for the appeal and must include any related argument as outlined in subsection 11-801(f).
- b. The appeal is restricted to the assessed sanction or sanctions.
- c. The student must provide a copy of the written appeal to the dean of students on the same date the appeal is submitted to the appellate officer.
- d. The dean of students may submit to the appellate officer a written response to the appeal and a copy of the disciplinary decision. These documents, if submitted, must be submitted no later than ten days after the appellate officer received the appeal. Appeals submitted after 5:00 pm will be received the next day. The dean of students must provide a copy of the documents to the accused student. The dean of students' submission of a response to the appeal will not extend the 15-day period within which the action of the appellate officer will be communicated as outlined in subsection 11–802(f).
- e. If the accused student does not submit a written appeal to the Appellate Officer by the deadline, the sanction(s) will become final, and the student waives his or her rights to appeal.
- f. The appeal of the sanction or sanctions assessed by the faculty member will be reviewed solely on the basis of the disciplinary decision, the written argument of the student, and the response to the appeal submitted by the dean of students. Oral argument will not be considered.
- g. The action of the appellate officer will be communicated in writing to the accused student and the dean of students within 15 days after the dean of students' appeal response has been received by the appellate officer. If the appellate officer is unable to issue the written decision within 15 days, the appellate officer should contact both the accused student and the dean of students to provide a date for completion of the written decision. The decision of the appellate officer will be final.

### **Sec. 11–803. Appeal of Administrative Disposition by the Dean of Students**

- a. An administrative disposition by the dean of students under subsection 11-504(a) is final and is not appealable.
- b. The accused student may appeal an administrative disposition by the dean of students under subsection 11–504(b) by submitting a written appeal to the appellate officer within ten days from the date on which the student signed the disciplinary decision issued by the dean of students. Appeals submitted after 5:00 pm will be received the next day. The written appeal must state the specific reasons for the appeal and must include any related argument in accordance with subsection 11-801(f).
- c. The accused student may appeal only the sanction or sanctions assessed under subsection 11–504(c) or 11-505(d) by submitting a written appeal to the appellate officer within ten days from the date on which the student signed the disciplinary decision issued by the dean of students or received notice of an additional sanction. Appeals submitted after 5:00 pm will be received the next day. The written appeal must state the specific reasons for the appeal and must include any related argument in accordance with subsection

11-801(f). The appeal is restricted to the assessed sanction or sanctions.

- d. In Track C cases, the complainant may also appeal the sanctions assessed under subsection 11-504(c) by submitting a written appeal to the appellate officer within ten days from the date on which the accused student signed the disciplinary decision issued by the dean of students or received notice of an additional sanction. Appeals submitted after 5:00 pm will be received the next day. The written appeal must state the specific reasons for the appeal and must include any related argument in accordance with subsection 11-801(f). The appeal is restricted to the assessed sanction or sanctions.
- e. If the original appealing party does not submit a written appeal to the Appellate Officer by the deadline, the sanction(s) will become final, and the student waives his or her right to appeal.
- f. The accused student must provide a copy of the written appeal to the dean of students on the same date the appeal is submitted to the appellate officer. In Track C cases, subject to the Family Education Rights and Privacy Act (FERPA) and other applicable law, upon receipt of the accused student's written appeal, the dean of students office shall provide a copy of the written appeal, if applicable, to the complainant
- g. In Track C cases, the complainant may submit a written response to the appeal to the appellate officer. The response, if any, must be submitted no later than ten days after the appellate officer received the appeal. The appellate officer will provide a copy of the response to the accused student.
- h. The dean of students may also submit a written response to the appeal to the appellate officer. The response, if any, must be submitted no later than ten days after the appellate officer received the appeal. The dean of students must provide a copy of the response to the accused student. In Track C cases, subject to the Family Education Rights and Privacy Act (FERPA) and other applicable law, the dean of students shall provide a copy to the complainant, if applicable, of the written response to the appeal that is submitted to the appellate officer. The dean of students' submission of a response to the appeal will not extend the 15-day period within which the action of the appellate officer will be communicated as outlined in subsection 11-803(i).
- i. The appeal of the sanction or sanctions assessed by the dean of students will be reviewed solely on the basis of the disciplinary decision, the written argument of the student, and the response to the appeal submitted by the dean of students. Oral argument will not be considered.
- j. The action of the appellate officer will be communicated in writing to the accused student and the dean of students within 15 days after the dean of students' appeal response has been received by the appellate officer. If the appellate officer is unable to issue the written decision within 15 days, the appellate officer should contact both the accused student and the dean of students to provide a date for completion of the written decision. The decision of the appellate officer will be final. In Track C cases, subject to the Family Education Rights and Privacy Act (FERPA) and other applicable law, upon receipt of the appellate officer's written decision, the dean of students shall promptly provide a copy of the decision, if applicable, to the complainant.

### **Sec. 11-804. Appeal of the Decision of the Hearing Officer or the Student Conduct Board**

- a. Either the accused student or the dean of students may appeal the disciplinary decision of the hearing officer or a majority of the SCB panel issued under Sec. 11-609 by submitting a written appeal to the appellate officer within ten days from the date the appealing party was notified of the disciplinary decision. Appeals submitted

after 5:00 pm will be received the next day. The written appeal must state the specific reasons for the appeal and must include any related argument. If either party appeals the disciplinary decision, the appellate officer may request that the hearing recording be transcribed; the transcript will be made available to both parties. If a court reporter was present during the hearing and prepares a written transcript immediately thereafter, the transcript is considered part of the hearing record and is made available to both parties.

- b. In Track C cases, the complainant may also appeal the disciplinary decision of the hearing officer issued under Sec. 11-609 by submitting a written appeal to the appellate officer within ten days from the date the appealing party was notified of the disciplinary decision. Appeals submitted after 5:00 pm will be received the next day. The written appeal must state the specific reasons for the appeal and must include any related argument. If either party appeals the disciplinary decision, the appellate officer may request that the hearing recording be transcribed; the transcript will be made available to both parties. If a court reporter was present during the hearing and prepares a written transcript immediately thereafter, the transcript is considered part of the hearing record and is made available to both parties.
- c. If the accused student is the appellant, the student must provide the dean of students with a copy of the appeal submitted to the appellate officer on the same date the appeal is submitted to the appellate officer. If the dean of students is the appellant, the dean of students will give, e-mail, or mail a copy of the appeal to the accused student on the same day that the dean of students submits the appeal to the appellate officer. In Track C cases, subject to the Family Education Rights and Privacy Act (FERPA) and other applicable law, the dean of students shall provide a copy of an appeal submitted by either the accused student, the complainant or the dean of students, if applicable, to the accused student and the complainant.
- d. Following submission of the appeal to the appellate officer, the non-appealing party may submit a written response to the appellate officer. The response, if any, must be submitted no later than ten days after the appellate officer received the appeal. The non-appealing party must provide a copy of the response to the other party. The response must be limited to and specifically related to the arguments originally submitted by the appealing party. New or additional information not specifically related to the original arguments submitted will not be considered on appeal. Submission of a response to the appeal will not extend the 15-day period within which the action of the appellate officer will be communicated as outlined in subsection 11-804(h).
- e. In Track C cases, subject to the Family Education Rights and Privacy Act (FERPA) and other applicable law, the dean of students shall provide a copy of a written response to an appeal submitted by either the accused student, the complainant or the dean of students, if applicable, to the accused student and the complainant.
- f. The appeal of the disciplinary decision of the hearing officer or a majority of the SCB panel will be reviewed solely on the basis of the hearing record; the materials presented by the individual appealing that meet the grounds for appeal as outlined in subsection 11-801(f); and any documents submitted by the non-appealing party in response to the appeal. The dean of students will submit the record from the hearing to the appellate officer as soon as it is available to the dean of students.
- g. The action of the appellate officer will be communicated in writing to the accused student and the dean of students within 15 days after receipt of any parties' timely appeal response by the appellate officer. If the appellate officer is unable to issue the written decision within 15 days, the appellate officer should contact both the accused student and the dean of students to provide a date for completion of the written decision. The decision of the appellate officer will be final.

In Track C cases, subject to the Family Education Rights and Privacy Act (FERPA) and other applicable law, upon receipt of the appellate officer's written decision, the dean of students shall provide a copy of the decision, if applicable, to the complainant.

### Sec. 11–805. Authority of the Appellate Officer

The appellate officer may approve, reject, or modify the disciplinary decision or sanction(s) in question or may require that the original hearing be reopened for the presentation of additional evidence and reconsideration of the disciplinary decision.

### Sec. 11–806. Effect of Appeal Upon Disciplinary Action

A timely appeal suspends the imposition of the sanction or sanctions until the appeal is final, but any interim action issued in accordance with 11-502 will remain in effect while the appeal is being considered. Official transcripts, diplomas, grades, or degrees may also be withheld pending conclusion of the appeal as permitted by subsection 11–703(a).

## Subchapter 11–900. Disciplinary Records

### Sec. 11–901. Details of Disciplinary Records

- a. The definition of a disciplinary record is listed in subchapter 9-300 and Sec. 11-300(8). Disciplinary records are confidential and may not be disclosed in whole or part except as provided in subchapter 9–300 of the *Institutional Rules*.
- b. The disciplinary record will be separate from the student's academic record, will be confidential, and will not be revealed except on request of the student or in accordance with applicable state and federal law, or as otherwise provided in subchapter 9-300.

### Sec. 11–902. Notice to Administrative Offices

- a. The dean of students will notify the Office of the Registrar and other appropriate administrative offices if a disciplinary sanction restricts a student from being enrolled at the University during the period of the sanction. A bar may be imposed by the dean of students if one of the following sanctions has been assessed because of violation of a Regents' *Rule* or University rule or regulation:
  1. bar against readmission or bar against reenrollment;
  2. suspension from the University; or
  3. expulsion from the University.
- b. The dean of students will notify the Office of the Registrar and other appropriate administrative offices if any of the sanctions of withholding grades, withholding official transcript or degree, denial of degree, or revocation of degree and withdrawal of diploma are imposed.

Relates to *Handbook of Operating Procedures*, 3-3031.

Updated September 9, 2020. Edits include changes related to [HOP 3-3031 Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination](#), implementing new federal Title IX regulations that were issued in May 2020 and went into effect on August 14, 2020.

Updated text September 2021 to reflect policy changes effective as of September 15, 2021.

# Chapter 12. Counseling and Mental Health Center

## Subchapter 12–100. General Provisions

### Sec. 12–101. Purpose

The purpose of the [Counseling and Mental Health Center](#) (CMHC or center) is to assess the needs of students with mental health concerns and connect them to the most appropriate CMHC or community resource. The CMHC provides crisis intervention, individual counseling, group counseling and psychiatric services and medication, if indicated. Prevention and mental health promotion initiatives help students maintain or improve their mental health, so they can maximize their academic and college experience.

### Sec. 12–102. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Director" means the director of the Counseling and Mental Health Center.
2. "Services" means services provided by the Counseling and Mental Health Center.
3. "University" means The University of Texas at Austin.
4. "Student" means a person enrolled at the University.

## Subchapter 12–200. Administration

### Sec. 12–201. Duties of the Director

- a. The director will:
  1. maintain and administer programs and services so they relate meaningfully to the mental health needs of the student body and the consultation or training needs of students, faculty and staff,
  2. appoint assistants and coordinators for various phases of program planning, administration and development and
  3. designate specific staff members to perform assigned duties in the absence of the director.
- b. The director is responsible for the mission and services of the CMHC and is administratively responsible to and reports regularly to the vice president for student affairs.

### Sec. 12–202. Duties of the Associate and Assistant Directors

- a. The associate and assistant directors are responsible for the duties assigned by the director.
- b. During the director's absence, the associate directors, as designated, will assume the duties of the director.

## Subchapter 12–300. Services Provided

### Sec. 12–301. Services Provided to Students

The services provide general and specific functions which include:

- a. brief assessment and referral to determine which CMHC or community resources are most appropriate for the needs of the student;
- b. individual counseling,
- c. group counseling, classes, programs and workshops,
- d. psychiatric evaluation and medication services,
- e. crisis intervention, triage and 24/7 CMHC crisis line,
- f. integrated health in collaboration with University Health Services,
- g. counselors in academic residence (CARE),
- h. diversity counseling and outreach specialist (DCOS) program,
- i. mental health consultation, prevention and outreach services,

- j. stress management and biofeedback resources,
- k. traumatic events responses and
- l. internships, practicum and residency programs for graduate-level, professional and medical students.

### **Sec. 12–302. Services Provided to the University**

CMHC provides mental health consultation services to faculty, staff and administrators regarding student mental health concerns. CMHC also responds to traumatic events impacting the campus and provides consultation to students, faculty, staff and administrators about coping with these events. The center provides prevention, mental health promotion, outreach and education to students, faculty and staff regarding suicide prevention, interpersonal violence, resilience, well-being in the classroom and other mental health and wellness topics. CMHC is also a training facility for university professional and graduate students in counseling psychology, clinical psychology, social work, pharmacy, medical school and nursing.

## **Subchapter 12–400. Counseling and Mental Health Center Records**

### **Sec. 12–401. Confidentiality of Records**

- a. All original medical records (whether electronic or paper) and other records of treatment, whether originating within CMHC or another facility or provider, are the property of CMHC.
- b. Confidentiality of CMHC records is governed by the laws of the State of Texas and applicable federal law. A notice of CMHC privacy practices is available at <http://cmhc.utexas.edu/ppn.html>.
- c. With certain exceptions, a student has the right to review, inspect or request copies of their medical record.
- d. Many items summarizing patient care are available on the patient portal. Additional information from patient records will be release only with informed written consent.

## **Subchapter 12–500. Fees, Payment for Services, Eligibility for Counseling and Mental Health Center Services and Medical Withdrawals**

### **Sec. 12–501. Fees**

CMHC is funded by student tuition, university subsidies, charges to student clients, and grants and private contributions. Services are currently provided at no charge to students, except for psychiatric services. For more information about CMHC charges and payments go to <http://www.cmhc.utexas.edu/charges.html>.

### **Sec. 12–502. Payment for Services**

Any student who incurs charges for CMHC services must pay the charges owed. If payment is not received or arrangements for payment are not made within 10 days of the date charges are posted to "What I Owe," a financial bar will be placed on the student's record. Barred students can contact the UHS/CMHC Billing and Insurance Office to discuss options that will allow them to register. Transcripts, diplomas and/or continued registration will be withheld until outstanding charges have been paid. When necessary, CMHC will assist students in making arrangements for payment

### **Sec. 12–503. Eligibility for Counseling and Mental Health Center Services**

An individual may use CMHC if:

- a. the person is a currently registered student at the University,
- b. the person is a student covered by the Vice President for Student Affairs Inter-agency Agreements such as the University of Texas Medical Branch-Galveston and the University of Texas Health Science Center,

- c. the person has paid the CMHC service extension fee and was registered during the semester immediately preceding the semester when services are requested (excluding University students who have graduated or withdrawn from the University before the twelfth class day of the current semester),
- d. the person has been admitted to the University, has paid the CMHC service extension fee, and will enroll the semester following the time services are requested;
- e. the person has paid the CMHC service extension fee and is a visiting scholar/researcher who is not officially registered for classes at the University, a post-doctoral fellow or a person enrolled in the English as a Second Language Program,
- f. the person has withdrawn from the University but was enrolled after the twelfth class day of the current semester,
- g. the person is attending a New Student Orientation session, but is not registered for the current semester, and requires CMHC crisis services,
- h. the person is admitted to the University but is not registered for the current semester and requires CMHC Brief Assessment and Referral (BART) services or
- i. the person meets one of the criteria above (a-h), is age 12 to 17 and is able either to consent to their own treatment according to the State of Texas statute or has appropriate written consent from a parent or guardian.

### **Sec. 12-504. Medical Withdrawal**

Requests for withdrawal from the university due to mental health reasons may be initiated at the request of the student. Applications to request consideration of a medical withdrawal should be submitted to Services for Students with Disabilities. Services for Students with Disabilities will involve CMHC or the appropriate dean's office, as indicated by the student's individual circumstances.

# **Chapter 13. Speech, Expression, and Assembly**

## **Subchapter 13–100. Governing Principles**

### **Sec. 13–101. Freedom of Speech, Expression, and Assembly**

- a. The freedoms of speech, expression, and assembly are fundamental rights of all persons and are central to the mission of the University. In accordance with this Chapter, students, faculty members, staff members, and members of the public have the right to assemble, to speak, and to attempt to attract the attention of others, and corresponding rights to hear the speech of others when they choose to listen, and to ignore the speech of others when they choose not to listen.
- b. In furtherance of the University's educational mission, the University buildings including their outside surfaces, surfaces associated with or connected to a University building, or a University structure are limited public forums open only to the expressive activities of faculty, staff, and students as set forth in this Chapter. Members of the public may engage in expressive activities at the University in accordance with the time, place, and manner rules contained in this Chapter. Student, faculty, and staff organizations may not invite the public at large to events in University buildings, facilities, or locations that are not a common outdoor area.
- c. Students, faculty members, and staff members are free to express their views, individually or in organized groups, orally or in writing or by other symbols, on any topic, in all parts of the campus, subject only to rules necessary to preserve the equal rights of others and the other functions of the University. Teaching, research, and other official functions of the University will have priority in allocating

the use of space on campus. Members of the public are able to engage in expressive activities only in common outdoor areas of the campus, subject to the time, place, and manner rules in this Chapter necessary to preserve the functions of the University.

- d. Except as expressly authorized by Subchapter 13–200, the University will not discriminate on the basis of the political, religious, philosophical, ideological, or academic viewpoint expressed by any person, either in the enforcement and administration of these rules or otherwise.
- e. The University of Texas at Austin Police Department (UTPD) may immediately enforce these rules if a violation of these rules constitutes a breach of the peace or compromises public safety.

### Sec. 13–102. Scope of This Chapter and Related Provisions

- a. This Chapter protects and regulates speech, expression, and assembly of students, faculty members, staff members, and members of the public that are not part of the teaching, research, or other official functions of the University, not otherwise sponsored by the University or any academic or administrative unit, and not submitted for academic credit.
  - 1. This Chapter also regulates certain speech that is part of the teaching, research, or other official functions of the University.
  - 2. Section 13–204 on harassment applies to all speech on campus.
- b. This Chapter applies to speech by University persons and University organizations in the common outdoor areas and the limited public forums. This Chapter also applies to members of the public in common outdoor areas. It also applies to speech that is submitted for academic credit, and speech made using the University’s information resources as defined in the *Acceptable Use Policy for University Students*. The dean of students administers and schedules reservations for the use of the temporary exhibit and banner spaces, and use of University tables, for all University persons and organizations because scheduling through a single office is necessary to avoid conflicts. The dean of students also administers and schedules reservations in the common outdoor areas and the use of the amplified sound for all University persons, University organizations, and members of the public.
- c. This Chapter, and those referenced herein, details students’ rights and responsibilities regarding expressive activities at UT Austin.
- d. Any program or event sponsored by an academic or administrative unit of the University will have priority in the use of space and facilities over any speech, expression, and assembly that is not sponsored by an academic or administrative unit, except that programs or events sponsored by an academic or administrative unit will not have priority in the use of weekday amplified sound areas defined in Section 13–802. This Chapter does not limit other existing authority of University officials to authorize programs and events sponsored by an academic or administrative unit and not provided for in this Chapter.
- e. Additional rules concerning free speech and academic freedom of faculty members are found in the *Regents’ Rules and Regulations*, Rule 31004, Number 2, Sections 1 and 2.
- f. Underlying rules concerning free speech of students are found in the *Regents’ Rules and Regulations*, Rule 40501, Rule 80101, Rule 80103, and Rule 80104. Chapter 13 of the *Institutional Rules* implements those provisions and applies them to UT Austin.
- g. Rules requiring University employees to make clear that controversial statements are made in their personal capacity are found in the *Regents’ Rules and Regulations*, Rule 10403, Section 9.2. Rules restricting use of University equipment, supplies, services, and working hours for political activities are found in the *Regents’ Rules and Regulations*, Rule 30103.

### Sec 13–103. General Definitions—Categories of Speakers and Users

In this Chapter, unless the context requires a different meaning, the following definitions apply.

1. “Academic or administrative unit” means any office or department of the University.
2. “Event” means something that occurs in a certain place during a particular interval of time; events include but are not limited to guest speakers, exhibits, tables, distribution of literature, signs, and public assemblies.
3. “Faculty member and staff member” includes any person who is employed by the University.
4. “Off-campus person or organization” and “member of the public” mean any person, organization, or business that is not an academic or administrative unit, a registered student, faculty, or staff organization, or a student, faculty member, or staff member.
5. “Registered student, sponsored student, faculty, or staff organization” includes a registered student organization or a sponsored student organization under Subchapter 6–200 of the *Institutional Rules*, or a faculty or staff organization under the *Regents’ Rules and Regulations*, Rule 40201.
6. “Student” means a person who is currently enrolled at the University, or has been enrolled at the University in a prior semester or summer session and is eligible to continue enrollment in the semester or summer session that immediately follows.
7. “University person or organization” includes academic and administrative units, registered students, sponsored students, faculty, and staff organizations, and individual students, faculty members, and staff members.

### Sec. 13–104. Other General Definitions

In this Chapter, unless the context requires a different meaning, the following definitions apply.

1. “Amplified sound” means sound whose volume is increased by any electric, electronic, mechanical, or motor-powered means. Shouting, group chanting, and acoustic musical instruments are exempt from this definition and are not subject to the special rules on amplified sound, but are subject to general rules on disruption.
2. “Common outdoor area” means outdoor space that is not used for dedicated University business or an event, an educational function, or a research function on either a permanent or temporary basis. It does not include the outside surfaces of a University building, surfaces associated with or connected to a University building, a University structure, spaces dedicated to temporary outdoor banners, spaces dedicated to temporary outdoor exhibits, or any other space within the University’s limited public forum. Common outdoor areas are designated by state law as traditional public forums.
3. “Day” means an 8:00 a.m. to 5:00 p.m. calendar day, and excludes weekends, University holidays, skeleton crew days, and days on which regularly scheduled classes are suspended due to emergent situations; “University holiday” and “skeleton crew days” means days identified in the holiday schedule published by the Office of Human Resource Services. If a deadline defined in this Chapter falls on a Saturday, Sunday, University holiday, or skeleton crew day that deadline will be moved to the next day.
4. “Dean of students” means the dean of students of The University of Texas at Austin or any delegate or representative of the dean of students.
5. “Limited public forum” means the University property, both indoors and outdoors, that is not part of the common outdoor area. This includes the outside surfaces of a University building, surfaces

associated with or connected to a University building, a University structure, spaces dedicated to temporary outdoor banners, spaces dedicated to temporary outdoor exhibits, residential outdoor spaces managed by University Housing and Dining including Jester Spanish Oaks Terrace, San Jacinto Amphitheatre, Honors Quad, and Duren Courtyard, the Blanton Museum's outdoor Plaza and Art Garden, the Union Building Patios, the William C. Powers Jr. Student Activity Center patios, Goldsmith Hall, and the Cronkite Plaza.

6. "Main Mall" means the area bounded by the south wall of the Main Building, the west walls of Garrison Hall, the north edge of Inner Campus Drive, the south wall of the Dorothy L. Gebauer Building and the east wall of Battle Hall. The Main Mall includes the south steps and south porches of the Main Building.
7. "Room or space" includes any room or space, indoors or outdoors, owned or controlled by the University.
8. "Temporary banner space" means designated outdoor or indoor display area reserved for University persons and University organizations' use, as managed by the dean of students, where a University person or organization's temporary banner may be affixed for multiple days as permitted by Subsection 13-503. These areas are part of the University's limited public forum and not open to members of the public.
9. "Temporary exhibit space" means designated outdoor display area reserved for University persons and University organizations' use, as managed by the dean of students, where a University person or organization may erect a temporary exhibit as permitted by Subsection 13-503. These areas are part of the University's limited public forum and not open to members of the public.
10. "University" means The University of Texas at Austin.
11. "Vice president" means the vice president for student affairs at The University of Texas at Austin.

### Sec. 13-105. Prohibited Items or Actions

The following restrictions are intended to protect the health and safety of all persons on campus, to maintain the free flow of pedestrian traffic in and out of University buildings, and to protect the educational mission of the University.

- a. A mask, facial covering, or disguise that conceals the identity of the wearer that is calculated to obstruct the enforcement of these rules or the law, or to intimidate, hinder or interrupt a University official, UTPD officer, or other person in the lawful performance of their duty.
- b. The possession, use, or display of firearms, facsimile firearms, ammunition, explosives, or other items that could be used as weapons, including but not limited to sticks, poles, clubs, swords, shields, or rigid signs that can be used as a shield, without written permission from the dean of students, unless authorized by federal, State or local laws.
- c. Body-armor or make shift body-armor, helmets and other garments, such as sporting protective gear, that alone or in combination could be reasonably construed as weapons or body-armor, without written permission from the dean of students.
- d. Open flame, unless approved in advance by The University of Texas at Austin Fire Marshal.
- e. No person or organization may engage in expressive activity within a ten-foot clearance around points of entry and the perimeter of all University buildings.

## Subchapter 13-200. Prohibited Expression

### Sec. 13-201. Obscenity

No person or organization will distribute or display on the campus any writing or visual image, or engage in any public performance, that is obscene. A writing, image, or performance is "obscene" if it is obscene

as defined in Texas Penal Code, Section 43.21 or successor provisions, and is within the constitutional definition of obscenity as set forth in decisions of the United States Supreme Court.

### Sec. 13-202. Defamation

- a. No person shall publish to a third party any statement that defames any other person.
- b. A statement defames another person if it is: (i) published to a third party other than the subject of the statement or their legal representative; (ii) of and concerning that person; (iii) is a false statement of fact; (iv) that holds the person up to hatred ridicule or contempt; (v) is made negligently, if the person is a private figure or, if the person is a public official or public figure, with knowledge of falsity or reckless disregard of the truth; (vi) which proximately causes damages; and (vii) is not privileged.

### Sec. 13-203. Incitement to Imminent Violations of Law

No person will make, distribute, or display on the campus any statements directed to inciting or producing imminent violations of law under circumstances such that the statements are likely to actually and imminently incite or produce violations of law.

### Sec. 13-204. Harassment

- a. No person will engage in conduct that constitutes harassment of another person or make, distribute, or display on the campus or through University information resources any statement that constitutes harassment of any other person. This Section applies to all speech at UT Austin, all speech made using University resources, including speech that is part of teaching, research, or other official functions of the University whether in person or not, and whether oral, written, or symbolic.
- b. "Harassment" means hostile or threatening conduct or speech, whether oral, written, or symbolic, that:
  1. is sufficiently severe, pervasive, and objectively offensive to create an objectively hostile or threatening environment that interferes with or diminishes the victim's ability to participate in or benefit from the services, activities, or privileges provided by the University; and
  2. personally describes or is personally directed to one or more specific individuals.
  3. When harassment is sex or gender based, the definitions for quid pro quo and hostile environment harassment, set out in [Handbook of Operating Procedure 3-3031\(V\)\(B\)](#), apply over this policy's harassment provision.
- c. To make an argument for or against the substance of any political, religious, philosophical, ideological, or academic idea is not harassment, even if some listeners are offended by the argument or idea.
- d. Verbal harassment may consist of threats, insults, epithets, ridicule, personal attacks, or the categories of harassing sexual speech set forth in Policy 3-3031 of the Handbook of Operating Procedures.
- e. Harassment can also consist of nonverbal conduct, such as hazing, practical jokes, damage to property, and physical assault. In the case of sexual harassment and other sex-based misconduct, sexual conduct is often central to the offense. These forms of harassment are prohibited by Policy 3-3031 of the Handbook of Operating Procedures, and by the Regents' *Rules and Regulations*, Rule 30105. Some forms of harassment violate the Prohibition of Campus Violence, Policy 8-1010, in the Handbook of Operating Procedures. For enhanced sanctions for disciplinary offenses motivated by the race, color, or national origin of a student harmed by the offense, see Subsection 11-701(b) of the *Institutional Rules*. To the extent of any conflict in the definition of verbal harassment, the more detailed definition in this Section controls.

- f. The harassment that this Section prohibits does not exhaust the category of speech that is unnecessary and inappropriate to vigorous debate in a diverse community of educated people. An essential part of higher education is to learn to separate substantive argument from personal offense, and to express even the deepest disagreements within standards of civility that reflect mutual respect, understanding, and sensitivity among the diverse population within the University and in the larger society. These are community norms, even though they cannot be enforced by disciplinary rules.
- g. Verbal harassment has been interpreted very narrowly by the federal courts. Policies on verbal harassment or hate speech at many universities have been held unconstitutional, either because they prohibited harassment only when it was based on race, sex, and similar categories, or because they failed to protect the expression of potentially offensive ideas. This policy should be interpreted as narrowly as need be to preserve its constitutionality.
- h. Members of the University community are strongly encouraged to report harassment and in some cases are required to do so by law. See HOP 3-3031 for more information.
- i.
1. A student who believes he or she has been harassed should report the alleged violation to the dean of students.
  2. A faculty member or staff member who believes he or she has been harassed should report the alleged violation to the Office for Inclusion and Equity.
  3. Alternatively, any person who believes he or she has been harassed may report the alleged violation to the Office for Inclusion and Equity or to any University official, administrator, or supervisor. A faculty member is not an "official, administrator, or supervisor" for this purpose unless that faculty member holds an administrative position.
  4. Any University official, administrator, or supervisor who receives a report of alleged harassment will promptly refer that report and the complainant to the Office for Inclusion and Equity, or to the dean of students, as appropriate. A complainant whose report is not forwarded to the Office for Inclusion and Equity, or to the dean of students, has not initiated proceedings for providing a remedy to the complainant or for imposing discipline on the alleged harasser.
  5. Investigation of the information provided, and any remedial or disciplinary proceedings, will proceed under the procedures set out in the harassment policies cross-referenced in Subsection 13-204(b).

### Sec. 13-205. Solicitation & Commercial Speech

- a. General Rules.
1. No University person, University organization, or member of the public will make, distribute, or display on the campus any statement that promotes, offers, or advertises any product or service for sale or lease that includes commercial identifiers, such as for-profit logos, trademarks, and service marks, or that requests any gift or contribution, except as authorized by Subsection 13-205(b), by section 13-403, or by the Regents' *Rules and Regulations*.
  2. Words or symbols on personal apparel, or on decals or bumper stickers affixed to a vehicle by an owner of that vehicle, are not solicitation within this definition.
  3. Unadorned acknowledgments or thanks to donors are not solicitation within this definition.
- b. Rules specific to campus community members.
1. A registered student, sponsored student, faculty, or staff organization may advertise or sell merchandise, publications, food, or nonalcoholic beverages, or request contributions: for the benefit of the registered student, sponsored student, faculty, or staff organization; for the benefit of another registered student, sponsored student, faculty, or staff organization; or, for the benefit of an organization that is tax-exempt under Section 501(c)(3) of the Internal Revenue Code. No organization may sell items obtained on consignment. No organization may request contributions for an off-campus tax-exempt organization for more than fourteen days in any fiscal year.
  2. Registered student, sponsored student, faculty, and staff organizations, and academic and administrative units, may sell, distribute, or display literature that contains advertising, subject to the limits in Section 13-403. Individual students, faculty members, and staff members may distribute or display such literature, but may not sell it.
  3. Individual students, faculty members, and staff members may post advertisements for roommates, subleases, and sales of used goods that the seller has personally owned and used, but only on a bulletin board designated for that purpose by an academic or administrative unit in space that the unit occupies or controls. Any unit that designates a bulletin board for this purpose may regulate that bulletin board under the procedures set forth in Section 13-504.
  4. A resident of a University residence hall or apartment building may occasionally invite one or more salespersons to come to the resident's room or apartment, and in that room or apartment, the salesperson may offer products or services for sale to other residents of that residence hall or apartment building.
  5. A registered student, sponsored student, faculty, or staff organization may collect admission fees for programs scheduled in advance in accordance with Subchapter 10-200 of the *Institutional Rules*.
  6. A registered student, sponsored student, faculty, or staff organization may collect membership fees or dues at meetings of the registered student, faculty, or staff organization scheduled in advance under Subchapter 10-200 of the *Institutional Rules*.
  7. A registered student organization that is a qualified organization as that term is defined in the Texas Charitable Raffle Enabling Act, Texas Occupations Code, Chapter 2002, or successor provisions, may sell charitable raffle tickets pursuant to that act.
  8. A registered student, sponsored student, faculty, or staff organization may host a public performance of a film scheduled in advance in accordance with Subchapter 10-200 of the *Institutional Rules*. In accordance with the Regents' *Rules and Regulations*, Rule 80103, admission fees may be collected. All registered students, sponsored students, faculty or staff organizations that exhibit films on campus must obtain a Public Performance License for the individual film(s) from a licensing agent. This license is required even if the exhibition of the film is offered to the public for free and is educational in nature. Registered student, sponsored student, faculty, or staff organizations will be required to follow the process proscribed by the film distributor to obtain approval to exhibit the film. Federal Copyright Laws protect all films viewed in public areas regardless of format. There are a few exceptions. Registered student, sponsored student, faculty, or staff organizations may exhibit a film publicly if
    - A. the film is in the Public Domain;
    - B. the registered student, sponsored student, faculty or staff organization has written permission from the film's producer or other holder of the right to grant such permission; or
    - C. the film is obtained from a company that provides a Public Performance License with the purchase or rental of the film.

- c. More detailed regulation of solicitation appears in the Regents' *Rules and Regulations*, Rule 80103.

## Subchapter 13–300. General Rules on Means of Expression

### Sec. 13–301. Disruption

- a. Except as expressly authorized in Section 13–802, or by an authorized University official responsible for a program or event sponsored by an academic or administrative unit, no speech, expression, or assembly may be conducted in a way that disrupts or interferes with any
1. teaching, research, administration, function of the University, or other authorized activities on the campus;
  2. free and unimpeded flow of pedestrian and vehicular traffic on the campus; or
  3. signs, tables, exhibits, public assemblies, distribution of literature, guest speakers, or use of amplified sound by another person or organization acting under the rules in this Chapter.
- b. Scope
1. The term “disruption” and its variants, as used in this Rule, are distinct from and broader than the phrase “disruption of activities,” as used in the Regents' *Rules and Regulations*, Rule 30103, Number 2, Section 2, and the phrase “disruptive activities,” as used in the Regents' *Rules and Regulations*, Rule 40502. This Rule is concerned not only with deliberate disruption, but also with scheduling and coordination of events to manage or minimize the inevitable conflicts between legitimate events conducted in close proximity, and to preserve the University's ability to execute its functions.
  2. Except in the most extreme cases, interference and disruption are unavoidably contextual. Intentional physical interference with other persons is nearly always disruptive in any context. Interfering with traffic depends on the relation between the volume of traffic and the size of the passageway left open. Disruptive noise is the most contextual of all, because it depends on the activity disrupted. Any distracting sound may disrupt a memorial service. Any sound sufficiently loud or persistent to make concentration difficult may disrupt a class or library. Occasional heckling in the speaker's pauses may not disrupt a political speech, but persistent heckling that prevents listeners from hearing the speaker does disrupt a political speech. These illustrations may be helpful, but none of them includes enough context to be taken as a rule. We cannot escape relying on the judgment and fairness of University authorities in particular cases. In this context where difficult enforcement judgments are unavoidable, it is especially important to remind administrators and law enforcement officials that their judgments should not be influenced by the viewpoint of those claiming disruption or of those allegedly disrupting.
- c. Potentially disruptive events can often proceed without disruption if participants, administrators, and law enforcement officials cooperate to avoid disruption without stopping the event. In cases of marginal or unintentional disruption, administrators and law enforcement officials should clearly state what they consider disruptive and seek voluntary compliance before stopping the event or resorting to disciplinary charges or arrest.

### Sec. 13–302. Damage to Property

- a. No speech, expression, or assembly may be conducted in a way that damages, defaces, marks, discolors, or alters in any way property of

the University or of any person who has not authorized the speaker to damage or deface his or her property.

- b. No person may damage, deface, mark, discolor, alter, or interfere with any sign, table, or exhibit posted or displayed by another person or organization acting under the rules in this Chapter.

### Sec. 13–303. Coercing Attention

- a. No person may attempt to coerce, intimidate, or badger any other person into viewing, listening to, or accepting a copy of any communication.
- b. No person may persist in requesting or demanding the attention of any other person after that other person has attempted to walk away or has clearly refused to attend to the speaker's communication.

### Sec. 13–304. Other Rules with Incidental Effects on Speech

- a. Other generally applicable or narrowly localized rules, written and unwritten, incidentally limit the time, place, and manner of speech, but are too numerous to compile or cross-reference here. For example, libraries typically have highly restrictive rules concerning noise; laboratories and rooms containing the electrical and mechanical infrastructure of the University typically have safety rules and rules excluding persons without specific business there; fire and safety codes prohibit the obstruction of exits and limit the constriction of hallways. Speech within classrooms is generally confined to the subject matter of the class; the right to attend a class at all is subject to registration and payment of tuition; individual professors may have rules of decorum in their classrooms. These kinds of rules limit the right of students, faculty members, and staff members to enter and speak in the places to which these rules apply.
- b. Reasonable and nondiscriminatory rules of this kind generally control over the rights of free speech guaranteed in this Chapter. But even these kinds of rules are subject to the constitutional right of free speech. Such rules must be viewpoint neutral. Such rules cannot regulate speech more restrictively than they regulate other activities that cause the problems to be avoided by the rule. Such rules should not restrict speech more than is reasonably necessary to serve their purpose. Such rules cannot ban unobtrusive forms of communication with no potential for disruption even in the specialized environment subject to the localized rule. Thus, for example, means of silent expression or protest confined to the speaker's immediate person, such as armbands, buttons, and T-shirts, are nearly always protected because they are rarely disruptive in any environment.

## Subchapter 13–400. Distribution of Literature

### Sec. 13–401. General Rule on Distribution of Literature

- a. “Literature” means any printed material, including any newspaper, magazine, or other publication, and any leaflet, flyer, or other informal matter, that is produced in multiple copies for distribution to potential readers.
- b. Registered students, sponsored students, faculty, and staff organizations and academic and administrative units may sell, distribute, or display literature on campus, subject to the rules in this Subchapter and to the general rules in Subchapter 13–200 and Subchapter 13–300. Individual students, faculty members, and staff members may distribute or display literature, subject to the rules in this Subchapter and to the general rules in Subchapter 13–200 and Subchapter 13–300, but may not sell it. In either case, no advance permission is required. Members of the public may distribute literature in the common outdoor areas, subject to the rules in this Subchapter and to the general rules in Subchapter 13–200 and Subchapter 13–300, but may not sell literature.

### Sec. 13–402. Not-for-Profit Literature Only

- a. Except as expressly authorized by the Regents' *Rules and Regulations* or by contract with the University, no person or organization may sell, distribute, or display on campus any publication operated for profit. A registered student, sponsored student, faculty, or staff organization may sell publications operated for profit as part of a fund-raiser authorized by, and subject to the limits of, Subsection 13–205(b)(1).
- b. A publication is operated for profit if any part of the net earnings of the publication, or of its distribution, benefits any private shareholder or individual.

### Sec. 13–403. Limits on Advertising

Literature distributed on campus may contain the following advertising:

1. advertising for a registered student, sponsored student, faculty, or staff organization, or an academic or administrative unit;
2. advertising for an organization that is tax exempt under Section 501(c)(3) of the Internal Revenue Code;
3. paid advertising in a publication primarily devoted to promoting the views of a not-for-profit organization or to other bona fide editorial content distinct from the paid advertising; and
4. other advertising expressly authorized by the Regents' *Rules and Regulations* or by contract with the University.

All other advertising in literature distributed on campus is prohibited.

### Sec. 13–404. Clean Up of Abandoned Literature

Any person or organization distributing literature on campus will pick up all copies dropped on the ground in the area where the literature was distributed.

## Subchapter 13–500. Signs, Banners, and A-Frames

### Sec. 13–501. General Rule on Signs

- a. "Sign" means any method of displaying a visual message to others, except that transferring possession of a copy of the message is distribution of literature and not a sign.
- b. Subject to the rules in this Subchapter and to the general rules in Subchapter 13–200 and Subchapter 13–300, a University person or organization may display a sign by holding or carrying it, or by displaying it at a table (see Subchapter 13–600), or by posting it on a bulletin board, or other designated location. Signs may not be staked in the ground or posted in any other location except for those areas allowed by long standing tradition or otherwise allowed by Subchapter 13–304(a) & (b) and 13–504(a). Subject to viewpoint-neutral size requirements, University Housing and Dining has designated the window and door of a residence hall room as locations where the resident(s) of that room may post signs. Section 13–504 lists other designated locations.

### Sec. 13–502. Hand-Held Signs

- a. A University person or University organization may display a sign on campus by holding or carrying it by hand or otherwise attaching it to their person. Members of the public may display a sign in the common outdoor areas by holding or carrying it by hand or otherwise attaching it to their person. No advance permission is required. Signs on sticks or poles or otherwise attached to any device are prohibited.
- b. Hand-held signs constructed of materials that create a hazard to other people are not permitted. Signs constructed of rigid materials, including sticks, poles, wood, metal, hard plastic, or other materials that could be construed as a hazard are not permitted.

- c. Any person holding or carrying a sign will exercise due care to avoid bumping, hitting, or injuring any other person.
- d. Any person holding or carrying a sign at a speech, performance, or other event will exercise due care to avoid blocking the view of any other person observing the speech, performance, or event. Depending on the venue, this may mean that signs may be displayed only around the perimeter of a room or an audience.
- e. A law enforcement officer or the dean of students, or an usher or other University employee if authorized by officials responsible for managing the venue, may warn any person that his or her sign is being handled in violation of Subsections 13–502(a), (b), (c) or (d). If the violation persists after a clear warning, the law enforcement officer, dean of students, authorized usher, or other authorized employee may confiscate the sign. A law enforcement officer may take any action necessary to keep the peace including but not limited to issuing a criminal trespass warning to the violator.

### Sec. 13–503. Banners

"Banner" means an affixed, stationary sign hung from a structure or building, or between two buildings, structures, or poles. Banners on poles may not be carried by individuals.

- a. Hand-held banners. University persons, University organizations, and members of the public are permitted to display a hand-held banner carried by two or more individuals without poles, in accordance with Rule 13–502(a) above, in the common outdoor areas.
- b. Temporary banner space designations.
  1. The dean of students will designate temporary banner spaces where banners may be hung in outdoor locations not occupied or controlled by any other academic or administrative unit. Temporary banner spaces are not open to members of the public.
  2. Other academic and administrative units may designate one or more temporary banner spaces where banners may be hung in indoor or outdoor locations that the unit occupies or controls. These temporary banner spaces are not open to members of the public.
- c. Space priority.
  1. Academic and administrative units and registered students, sponsored students, faculty, and staff organizations may hang banners in locations designated under Subsection 13–503 (b). Individuals and members of the public may not hang banners.
  2. Advance permission is required from the unit administering the location; usually, advance reservations are required. Academic and administrative units advertising official University events or programs may be given priority. In locations administered by academic or administrative units other than the dean of students, organizations affiliated with the unit administering the location may be given priority.
- d. Time limits.
  1. In locations administered by the dean of students, each banner may be hung for one week. The banner may be renewed from week to week if space is available.
  2. Other units administering a location for banners may limit the time each banner may hang. Any such time limit will be applied without discrimination to all organizations, except that academic and administrative units may be given preference.
- e. The dean of students will maintain, on a Web site or on a flyer or pamphlet available at the dean of students' office:
  1. a list of outdoor temporary banner spaces where banners may be hung;
  2. the academic or administrative unit that administers this banner policy at each outdoor location; and

3. a current description of the rules and procedures for reserving a temporary banner space in order to hang a banner in locations administered by the dean of students.
- f. The unit administering a banner location may require that the physical work of hanging the banners be performed only by Department of Facilities Services employees or other appropriate University personnel.

### **Sec. 13–504. Signs in Other Designated Locations (Including Departmental Bulletin Boards)**

- a. Each academic or administrative unit may authorize the posting of signs in spaces that unit occupies and controls. Such authorization may be granted by general rule, by stamping or initialing individual signs, or by long-standing tradition.
- b. Signs in spaces occupied by academic or administrative units may be
  1. confined to bulletin boards or other designated locations;
  2. subjected to viewpoint-neutral rules limiting the size of signs, limiting how long they may be posted, requiring each sign to show the date it was posted and the name of the person or organization who posted it, and similar rules designed to facilitate fair and equal opportunities to post signs;
  3. confined to official statements or business of the unit, or to certain subject matters of interest within the unit, or to signs posted by persons or organizations affiliated with the unit.
- c. Each academic or administrative unit will post on or near each bulletin board or other designated location that it administers
  1. either the rules applicable to that bulletin board or location, or a particular office or Web site where the rules applicable to that bulletin board or location may be found; and
  2. if a stamp or initials are required on signs before they are posted on that bulletin board or location, the name and office location of the person whose stamp or initials are required.
  3. This notice will be posted in the upper left corner of each bulletin board or other designated location for posting signs, or conspicuously in another nearby location. If no such notice is posted, then the only applicable rules are those contained in Subchapter 13–200 and Sections 13–301 to 13–304.
- d. Within the scope of the subject matters permitted on a particular bulletin board or other designated location, no academic or administrative unit will discriminate on the basis of the political, religious, philosophical, ideological, or academic viewpoint expressed on a sign.
- e. This Section does not apply to any enclosed bulletin board or display case that is accessible only to authorized personnel for official University business.

## **Subchapter 13–600. Tables**

### **Sec. 13–601. General Rule on Tables**

University persons and University organizations may set up tables from which to display literature, disseminate information and opinions, and raise funds, subject to the rules in this Subchapter and to the general rules in Subchapter 13–200, Subchapter 13–300, and Subchapter 13–1000. No advance permission is required. Members of the public may not set up tables in the common outdoor areas or in the University’s limited public forum areas.

### **Sec. 13–602. Locations**

- a. Subject to the restrictions elsewhere in these rules, including in Subsection 13–602(b) and the rules on disruption of other functions and interference with vehicular and pedestrian traffic (see Section 13–301), University persons and University organizations may set up tables in the common outdoor areas on the campus. University

persons and University organizations may set up tables in University buildings in any large, open, indoor location.

- b. Additional restrictions.
  1. Tables may not be set up on the Main Mall between 8:00 am and 5:00 pm on weekdays.
  2. Tables may not be set up inside any library, classroom, laboratory, performance hall, stadium, or office, or in any hallway less than ten feet wide, without permission from the academic or administrative unit that controls the space, or from the faculty member or staff member who controls the space at a particular time.
  3. An academic or administrative unit may further specify these rules by restricting tables to reasonable locations in spaces occupied by that unit. Academic and administrative units are encouraged to state any such rules clearly in writing and to publish those rules on a Web site or on a flyer or pamphlet available at the chief administrative office of the unit.
- c. If any table is set up in a prohibited or disruptive location, any University employee pointing out the violation will also point out other locations, as nearby as is reasonably possible, where the table is permitted.

### **Sec. 13–603. Clean Up Around Tables**

University persons and organizations sponsoring a table will remove litter from the area around the table before vacating the space.

### **Sec. 13–604. Sources of Tables**

University persons and organizations may supply their own tables. In addition, the dean of students maintains a supply of tables for registered student and sponsored student organizations that may be reserved and checked out for use on campus in designated areas. The dean of students will maintain, on a Web site or on a flyer or pamphlet available at the office of the dean of students, a current description of the rules and procedures for reserving and checking out tables.

## **Subchapter 13–700. Exhibits**

### **Sec. 13–701. General Rule on Exhibits**

- a. “General exhibit” means an object or collection of related objects, designed to stand on the ground or on a raised surface, which is not a table, is designed for temporary display, and is not permanently attached to the ground.
- b. “A-frame exhibit” means a movable and self-supported sign board designed to stand on the ground and remain overnight in a temporary outdoor exhibit space. A-frame exhibits may not exceed five feet in height or width. Structures that do not meet this criteria will be considered general exhibits and will be subject to the rules in the subchapter on general exhibits.
- c. Academic or administrative units and registered students, sponsored students, faculty, or staff organizations may erect general exhibits and A-frame exhibits, subject to the rules in this Subchapter and to the general rules in Subchapter 13–200, Subchapter 13–300, and Subchapter 13–1000. Advance permission is required from the dean of students, except that an academic unit may authorize indoor exhibits in a space that it occupies and controls. Outdoor general exhibits may not be erected on the Main Mall between 8:00 am and 5:00 pm on weekdays. Members of the public may not erect exhibits.

### **Sec. 13–702. Application Process**

An academic or administrative unit or a registered student, sponsored student, faculty, or staff organization desiring to display an outdoor general exhibit or A-frame exhibit will apply on a form prescribed by the dean of students.

## Sec. 13–703. Approval Process

- a. General exhibits.
  1. The dean of students will designate temporary outdoor exhibit spaces where general exhibits may be placed. The dean of students will authorize a general exhibit described in a completed application under Section 13–702 unless the dean of students finds that use of the proposed temporary outdoor exhibit space for the proposed exhibit must be disapproved under the criteria in Section 10–203 of the *Institutional Rules*. The dean of students will advise the applicant how to correct, if possible, any conditions that preclude approval of the application.
  2. The dean of students will consider the totality of the circumstances, including safety concerns, as part of the approval process.
- b. A-frame exhibits.
  1. The dean of students will designate temporary outdoor exhibit spaces where A-frame exhibits may be placed. If an academic or administrative unit or a registered student, sponsored student, faculty, or staff organization wishes to place an A-frame exhibit in a different location than the structure will be considered a general exhibit under this Subchapter.
  2. The dean of students will maintain, on a Web site or on a flyer or pamphlet available at the dean of students' office, a current description of the rules and procedures for reserving a temporary outdoor exhibit space for A-frame exhibits on campus.

## Sec. 13–704. Time Limits

- a. General exhibits.
  1. In locations administered by the dean of students, each exhibit may be displayed for up to fourteen days. The exhibit may be renewed for an additional fourteen days if space is available.
  2. The exhibit may be displayed no earlier than 8:00 am and must be removed by 10:00 pm each day and may be re-erected each morning. Overnight exhibits will be considered on a case-by-case basis and subject to 13-703.
- b. A-frame exhibits.
  1. Each A-frame exhibit may be placed for up to fourteen days and remain overnight. The A-frame exhibit may be renewed for an additional fourteen days if space is available.
  2. If the A-frame is left on campus for longer than the reservation, the A-frame may be removed by the Department of Facilities Services, at the expense of the academic or administrative unit or registered student, sponsored student, faculty, or staff organization.

## Sec. 13–705. Clean Up Around Exhibits

Any academic or administrative unit or registered student, sponsored student, faculty, or staff organization sponsoring an exhibit will remove litter from the area around the exhibit before vacating the space.

## Sec. 13–706. Liability

Any registered student, faculty, or staff organization sponsoring an exhibit assumes full responsibility for the exhibit, including all injuries or hazards that may arise from the exhibit. The University will not be liable for any damage that may occur to the exhibit, and any registered student, faculty, or staff organization sponsoring the exhibit will indemnify the University for any claims arising from the exhibit's presence on campus.

## Subchapter 13–800. Amplified Sound

### Sec. 13–801. General Rule on Amplified Sound

University persons, University organizations, and members of the public may use amplified sound on campus at designated times and locations, subject to the rules in this Subchapter and to the general rules

in Subchapter 13–200 and Subchapter 13–300. Advance permission is required. This Subchapter creates limited exceptions to the general rule on disruption in Section 13–301.

### Sec. 13–802. Location and Times of Weekday Amplified Sound Areas

- a. West Mall Amplified Sound Area.
  1. The West Mall Amplified Sound Area is the extreme east end of the West Mall, adjacent to the west steps of the Main Building.
  2. University persons, University organizations, and members of the public may use amplified sound in this area from 11:30 am to 1:30 pm on weekdays.
  3. All academic and administrative units, as well as, registered and sponsored student organizations, and faculty and staff organizations may use sound equipment owned or controlled by the dean of students' office for this sound area.
  4. Members of the public must use their own sound equipment. This sound area requires a reduced decibel level as compared to other sound areas to ensure educational activity in close proximity is not disturbed.
  5. Per Section 61.004 of the Texas Elections Code, groups making a political speech, or electioneering for or against any candidate, measure, or political party may not use amplified sound on the West Mall or anywhere within 1000 feet of a polling place when the polling place is open.
- b. Winship Circle Amplified Sound Area.
  1. The Winship Circle Amplified Sound Area is the grassy area east of the East Mall Fountain, west of Waller Creek, and south of Winship Hall.
  2. University persons, University organizations, and members of the public may use amplified sound in this area from 8:00 am to 5:00 pm on weekdays.
- c. Battle Oaks Amplified Sound Area.
  1. The Battle Oaks Amplified Sound Area is the area bounded by the north wall of Hogg Auditorium, by an extension drawn northward from the east wall of the Texas Union, by the south edge of the sidewalk on the south side of 24th Street, and by the west edge of the sidewalk on the west side of Inner Campus Drive.
  2. University persons, University organizations, and members of the public may use amplified sound in this area from 8:00 am to 5:00 pm on weekdays.
- d. Mustangs Amplified Sound Area.
  1. The Mustangs Amplified Sound Area is the area bounded by the sidewalk on the east side of San Jacinto Boulevard, by the west wall of the Texas Memorial Museum, and by the outer edge of the two stairways on either side of the lawn.
  2. University persons, University organizations, and members of the public may use amplified sound in this area from 8:00 am to 5:00 pm on weekdays.
- e. San Jacinto Street Amplified Sound Area.
  1. The San Jacinto Street Amplified Sound Area is the area bounded by the south wall of the Art Building, by the east edge of the sidewalk on the east side of San Jacinto Boulevard, by the north edge of the sidewalk on the north side of 23rd Street, and by the west edge of the sidewalk on the west side of Trinity Avenue.
  2. University persons, University organizations, and members of the public may use amplified sound in this area from 8:00 am to 5:00 pm on weekdays.
- f. LBJ Fountain Amplified Sound Area.

1. The LBJ Fountain Amplified Sound Area is the area bounded by the east edge of Robert Dedman Drive, by the first sidewalk north of the LBJ Fountain, by a line drawn tangent to the west side of the LBJ Fountain and parallel to Robert Dedman Drive, and by the base of the hill on the south side of the LBJ Fountain.
2. University persons, University organizations, and members of the public may use amplified sound in this area from 8:00 am to 5:00 pm on weekdays.
- g. 2609 University Avenue Courtyard Amplified Sound Area.
  1. The 2609 University Avenue Courtyard Amplified Sound Area is the area bounded by the 2609 University Avenue Building on the north, south and east sides, and by the east edge of the sidewalk on the east side of University Avenue.
  2. University persons, University organizations, and members of the public may use amplified sound in this area from 8:00 am to 5:00 pm on weekdays.
- h. Creekside Residence Hall Lawn Amplified Sound Area.
  1. The Creekside Residence Hall Lawn Amplified Sound Area is the area bounded by Dean Keeton Street on the north, by Waller Creek on the east and south, and by San Jacinto Boulevard on the west and south.
  2. University persons, University organizations, and members of the public may use amplified sound in this area from 8:00 am to 5:00 pm on weekdays.
- i. The vice president may designate additional areas for weekday use of amplified sound. An Amplified Sound Areas Map may be found [here](#).

### Sec. 13–803. Regulation and Scheduling of Weekday Amplified Sound

- a. The dean of students may prescribe rules concerning scheduling, sound levels, the location of speakers and the direction in which they are pointed, and other rules to facilitate the use of weekday amplified sound areas, to mediate any conflict with University functions and other nearby activities, and to manage environmental impact. All such rules will be reasonable and nondiscriminatory.
- b. Reservations.
  1. University persons, University organizations, and members of the public wishing to use a weekday amplified sound area must reserve a particular area at a particular time. Reservations by University persons and University organizations must be made with the dean of students on a form prescribed by the dean of students. Members of the public may reserve space by making a request to [reservepublicforum@austin.utexas.edu](mailto:reservepublicforum@austin.utexas.edu). The dean of students will approve a properly completed application or email request to reserve an amplified sound area, unless the application or request must be disapproved under the criteria in Section 10–203 of the *Institutional Rules* or under rules promulgated by the dean of students under the authority of this Section.
  2. The dean of students may limit the number or frequency of reservations for each applicant to ensure reasonable access for all persons and organizations desiring to use amplified sound on weekdays.
  3. When amplified sound areas are not reserved for use for an assembly including amplified sound, they are available for use, for permitted expressive activity, without reservation as part of the common outdoor areas. Any person or organization using or occupying the space without a reservation must yield control of the space in time to permit any user with a reservation to begin using the space promptly at the beginning of its reserved time

- c. Amplified sound in the West Mall Sound Area is in fact disruptive of teaching, administration, and research in the Main Building, in the Flawn Academic Center, in Goldsmith Hall, in the West Mall Office Building, and in Battle Hall. Amplified sound in the Winship Circle Amplified Sound Area is in fact disruptive of teaching, administration, research and performance in College of Liberal Arts Building, the Laboratory Theatre and Winship Hall. The disruption inherent in this use of amplified sound is expressly authorized, but no other disruption is authorized. Disruption is permitted to this extent because otherwise, it would be necessary to ban all use of amplified sound in and near the center of campus during working hours.
- d. University persons, University organizations, and members of the public using amplified sound are responsible for maintaining a passageway for pedestrians that is adequate to the volume of pedestrian traffic passing through the area. Should the size of the assembly exceed the maximum number of participants that is safe for a given location, participants will be directed by campus authorities to relocate to a space that is better suited to the size of the assembly.
- e. The amplified sound locations are maintained on the [Amplified Sound Areas Map](#). Any designations of additional areas, any additional rules regulating the designated areas, and the rules and procedures for reserving the use of a designated area, will be clearly stated on a Web site, flyer, or pamphlet available at the office of the dean of students.

### Sec. 13–804. Amplified Sound on Evenings and Weekends

- a. With advance permission, University persons, University organizations, and members of the public may use amplified sound in any location in the common outdoor areas of campus, including the weekday amplified sound areas designated in Section 13–802, after 5:00 pm on weekdays, and after 8:00 am on weekends, except for the early morning hours excluded in Subsection 13–804(b).
- b. If amplified sound is authorized for an event on a Sunday, Monday, Tuesday, Wednesday, or Thursday evening, the sound must be turned off by midnight on the following day. If amplified sound is authorized for an event on a Friday or Saturday evening, the sound must be turned off by 1:00 am on the following day.
- c. The dean of students may prescribe reasonable and nondiscriminatory rules concerning scheduling, sound levels, the location of speakers and the direction in which they are pointed, and other rules to facilitate the use of amplified sound on evenings and weekends, to mediate any conflict with University functions and other nearby activities, and to manage environmental impact.
- d. Use of amplified sound on evenings and weekends requires advance permission from the dean of students. Reservations by University persons and University organizations must be made with the dean of students on a form prescribed by the dean of students. Members of the public may reserve space by making a request to [reservepublicforum@austin.utexas.edu](mailto:reservepublicforum@austin.utexas.edu). The dean of students will authorize amplified sound as described in a completed application or email request unless the dean of students finds that the application or request must be disapproved under the criteria in Section 10–203 of the *Institutional Rules* or under rules promulgated by the dean of students under the authority of this Section. The dean of students will advise each applicant or requestor how to correct, if possible, any conditions that preclude approval of its application.

### Sec. 13–805. Amplified Sound Indoors

University persons and University organizations may use amplified sound indoors. Amplified sound sufficient to be heard throughout the room may be used in any room in any building, but the dean of students may limit or prohibit sound that would be disruptive outside the room.

Reservations may be required. Rules concerning use of University buildings are contained in Chapter 10 of the *Institutional Rules*.

find the facility locked or the space in use by another person or organization.

## Subchapter 13–900. Public Assemblies

### Sec. 13–901. General Rule on Public Assemblies

- a. “Publicly assemble” and “public assembly” include any gathering of persons, including discussions, rallies, and demonstrations. The rules in Subchapter 13–800 apply to any use of amplified sound at a public assembly.
- b. Persons and organizations may publicly assemble on campus in any place where, at the time of the assembly, the persons assembling are permitted to be. This right to assemble is subject to the rules in this Chapter and to the rules on use of University property in Chapter 10 of the *Institutional Rules*. No advance permission is required in the common outdoor areas.

### Sec. 13–902. Reservation of Space

- a. Common outdoor areas reservations.
  1. University persons, University organizations, and members of the public may reserve a space to assemble in the common outdoor areas, as defined by this Chapter. This is in addition to the amplified sound areas which are also available for reservation.
  2. Reservations by University persons and University organizations must be made with the dean of students on a form prescribed by the dean of students. Members of the public may reserve space by making a request to [reservepublicforum@austin.utexas.edu](mailto:reservepublicforum@austin.utexas.edu). Applications and requests for a reservation for such assemblies will be approved pursuant to Subchapter 10–200 of the *Institutional Rules*.
  3. If the expected attendance at an assembly is twenty-five or more people, advance notice of no less than two weeks is recommended. Persons and organizations are encouraged to seek a reservation of a space that is suited to their assembly's anticipated size.
- b. Limited public forum areas reservations.
  1. Registered student, sponsored student, faculty, or staff organizations and academic or administrative units may reserve a space to assemble in the limited public forum areas, as defined by this Chapter.
  2. The dean of students will receive applications for reservations of a space within the limited public forum areas. Applications for a reservation for such assemblies will be processed under the provisions in Subchapter 10–202 of the *Institutional Rules*. Individual faculty, staff, and students may not reserve space under the provisions in Chapter 10.
  3. If the expected attendance at an event with a guest speaker is twenty-five or more people, advance notice of no less than two weeks is required.
- c. Any person or organization with a reservation has the right to the reserved room or space for the time covered by the reservation. Any person or organization using or occupying the room or space without a reservation must yield control of the room or space in time to permit any user with a reservation to begin using the room or space promptly at the beginning of its reserved time.
- d. Should the size of any assembly exceed the maximum number of participants that is safe for a given location, including a reserved space, assembly participants will be directed by campus authorities to relocate to a space that is better suited to the size of the assembly to the extent relocation is practicable.
- e. While reservations are not always required, they are strongly encouraged. Without a reservation, a person or organization may

### Sec. 13–903. Notice and Consultation

- a. Persons or organizations may publicly assemble on campus in any place where, at the time of the assembly, the persons assembling are permitted to be.
- b. Persons or organizations that are planning a public assembly in a common outdoor area with or without a guest speaker and expected attendance of more than twenty-five participants, including potential counter-demonstrators, are encouraged to provide advance notice of no less than two weeks to the dean of students to help the University improve the safety and success of the expressive activity. Members of the public may provide this notice by emailing [reservepublicforum@austin.utexas.edu](mailto:reservepublicforum@austin.utexas.edu). If there is uncertainty about applicable University rules, the appropriateness of the planned location, or possible conflict with other events, persons and organizations are encouraged to consult the dean of students. Should the size of the assembly exceed the maximum number of participants that is safe for a given location, participants will be directed by campus authorities to relocate to a space that is better suited to the size of the assembly.
- c. University persons or organizations planning an event in the limited public forum areas with or without a guest speaker and an expected attendance of more than twenty-five participants, are required to provide advanced notice of no less than two weeks to the dean of students to help the University improve the safety and success of the expressive activity. Notice will be provided on a form prescribed by the dean of students.
- d. The notice and consultation requirements of this Subchapter do not apply to academic or administrative units.
- e. The University persons and University organizations notice and consultation requirements of this Subchapter may be waived by the dean of students or his or her designee.
- f. Registered student, sponsored student, faculty, and staff organizations are afforded privileges not available to individual faculty, staff, and students. Individuals may not reserve indoor space on campus.

## Subchapter 13–1000. Guest Speakers

### Sec. 13–1001. Definitions

“Guest speaker” means a speaker or performer who is not a student, faculty member, or staff member.

### Sec. 13–1002. Who May Present

- a. Subject to the rules in this Chapter, University persons, University organizations, and members of the public may present guest speakers in common outdoor areas of the campus.
- b. Registered student, sponsored student, faculty, and staff organizations and academic and administrative units may present guest speakers in the limited public forums of the campus. In the case of registered student organizations and sponsored student organizations, advance permission from the dean of students is required. Registered faculty organizations are required to seek advance permission from the executive vice president and provost. Registered staff organizations are required to seek advance permission from the senior vice president and chief financial officer. Individuals may not present a guest speaker in University buildings or University facilities.

### Sec. 13–1003. Location and Form of Presentation

- a. Subject to the rules in this Chapter, including the applicable time, place, and manner rules, University persons, University organizations,

and members of the public may utilize the common outdoor areas for guest speaker assemblies. No reservation or prior approval is necessary, but notice and reservations are encouraged for assemblies of twenty-five or more people.

- b. A guest speaker may present a speech or performance, or lead a discussion of specified duration, at a time announced in advance, in a fixed indoor location approved by the dean of students.
  1. A guest speaker may distribute literature indoors only immediately before, during, and immediately after the normal course of his or her speech, presentation, or performance, and only to persons in attendance. Only literature that complies with Subchapter 13–400 may be distributed.
  2. Student, faculty, and staff organizations may not invite the public at large to events in University buildings or facilities.
- c. A guest speaker may not
  1. accost potential listeners who have not chosen to attend the speech, performance, or discussion; or
  2. help staff a table or exhibit set up outside the common outdoor areas or in the University buildings or facilities.
- d. No University person, University organization, or member of the public may present a guest speaker in violation of the prohibitions against solicitation in Section 13–205 or cosponsorship in Chapter 10, Section 13–304 of the *Institutional Rules*.

### **Sec. 13–1004. Application for University Building or Facility Space for Presentation of Guest Speakers**

In accordance with Regents' *Rules and Regulations*, Rule 40501, Section 3.5, all registered students, sponsored students, faculty, and staff organizations that wish to present a guest speaker in a University building or facility space will apply through a prescribed process, at least two weeks before the scheduled event or any planned advertising for the event, whichever is earlier.

1. A registered or sponsored student organization that wishes to present a guest speaker will apply to the dean of students, through a process prescribed by the dean of students, at least two weeks before the scheduled event or any planned advertising for the event, whichever is earlier. The application will be combined with an application under Section 10–202 of the *Institutional Rules* to reserve the use of a University room or space for the event. The dean of students will approve an application properly made under Subsection 13–1004(a) unless it must be disapproved under the criteria in Chapter 10, Section 10–203 of the *Institutional Rules*.
2. A registered faculty organization that wishes to present a guest speaker will apply to the executive vice president and provost through a process prescribed by the executive vice president and provost, at least two weeks before the scheduled event or any planned advertising for the event, whichever is earlier. The application will be combined with an application under Chapter 10, Section 10–202 of the *Institutional Rules* to reserve the use of a University room or space for the event. The executive vice president and provost will approve an application properly made under Subsection 13–1004(a) in consultation with the dean of students unless it must be disapproved under the criteria in Chapter 10, Section 10–203 of the *Institutional Rules*.
3. A registered staff organization that wishes to present a guest speaker will apply to the senior vice president and chief financial officer through a process prescribed by the senior vice president and chief financial officer, at least two weeks before the scheduled event or any planned advertising for the event, whichever is earlier. The application will be combined with an application under Chapter 10, Section 10–202 of the *Institutional Rules* to reserve the use of a University room or space for the event. The senior vice president

and chief financial officer will approve an application properly made under Subsection 13–1004(a) in consultation with the dean of students unless it must be disapproved under the criteria in Chapter 10, Section 10–203 of the *Institutional Rules*.

### **Sec. 13–1005. Obligations of Presenting Organization**

A University person or registered student organization or faculty/staff organization that presents a guest speaker in a University building or facility must make clear that:

1. the organization, and not the University, invited the speaker;
2. the views expressed by the speaker are his or her own and do not necessarily represent the views of the University, The University of Texas System, or any System institution; and
3. members of the general public are not invited to attend the guest speaker's presentation with the exception of presentations put on by academic or administrative units.

## **Subchapter 13–1100. Responding to Speech, Expression, and Assembly**

### **Sec. 13–1101. General Rule on Responding**

Persons and organizations may respond to the speech, expression, or assembly of others, subject to all the rules in this Chapter.

### **Sec. 13–1102. Applications of Section**

- a. Responders may not damage or deface signs or exhibits, disrupt public assemblies, block the view of participants, or prevent speakers from being heard.
- b. Means of response that are permitted in many locations and without advance permission or reservation, such as signs, distribution of literature, and public assembly without amplified sound, may be used immediately and in any location authorized in this Chapter.
- c. Means of response that require advance permission or reservation, such as temporary banners, A-frames exhibits, general exhibits, and amplified sound, may be used as soon as the needed permission or reservation may be arranged. Temporary banner space, temporary outdoor exhibit space, and some amplified sound areas may be unavailable on short notice because of earlier reservations, but the dean of students will expedite approval of available temporary banner spaces, available temporary outdoor exhibit spaces, and amplified sound areas where necessary to permit appropriate response to other speech, assembly, or expression.
- d. Means of response that are confined to authorized locations, such as banners, exhibits, and amplified sound, may be used only in those locations. It is not possible to respond to amplified sound with amplified sound in the same location; similarly, if an exhibit or public assembly is in a location where amplified sound is not permitted, it is not possible to respond with amplified sound in that location. In either case, it is possible to respond with amplified sound in another location and to use signs or distribution of literature to advertise the response at the other location.

## **Subchapter 13–1200. Enforcement and Appeals**

### **Sec. 13–1201. Police Protection**

- a. It is the responsibility of the University to protect the safety of all persons on campus and to provide police protection for speakers, public assemblies, persons staffing or viewing exhibits, and other events. The normal patrolling of officers during regular duty areas in the area of such events will be at the cost of the University. When the magnitude, timing, or nature of an event in a University building, University facility, or other area of the University's limited public forum that requires overtime hours from police officers (including contract hours for officers hired from other departments or private

security agencies), the University will, to the extent specified in Subsection 13–1201(b) and Subsection 13–1201(c), charge the cost of overtime or contract officers to the person or organization sponsoring the event or exhibit that requires overtime police protection. The purpose of Subsection 13–1201(b) and Subsection 13–1201(c) is to charge for police overtime where reasonably possible, but not to charge for police overtime made necessary by the content of speech at the event or by the controversy associated with any event.

- b. University persons or organizations planning such events should budget for the cost of police protection. A reasonable and nondiscriminatory fee for overtime police work will be charged to the registered student, sponsored student, faculty, or staff organization for events in a University building, University facility, or other area of the University's limited public forum that require overtime police protection, and
  1. charge a price for admission; or
  2. have a paid speaker, band, or other off-campus person or organization for services at the event.
- c. The University will have the sole power to decide, after reasonable consultation with the person or organization planning the event, whether and to what extent overtime police protection is required. No fee will be charged for officers assigned because of political, religious, philosophical, ideological, or academic controversy anticipated or actually experienced at the event. All fees will be based on the number of officers required for an uncontroversial event of the same size and kind, in the same place and at the same time of day, handling the same amount of cash.
- d. Nothing in this Section applies to any interdepartmental charge or transfer among units or accounts funded by the University.

### Sec. 13–1202. Response to Violations

- a. Students wishing to make a grievance regarding a violation of Texas Education Code § 51.9315 may report it via the University compliance and ethics hotline by emailing [compliance@austin.utexas.edu](mailto:compliance@austin.utexas.edu).
- b. A student who violates a prohibition in this Chapter may be disciplined under the procedures in Chapter 11 of the *Institutional Rules*. A registered student or sponsored student organization that violates a prohibition in this Chapter may be disciplined under the procedures in Chapter 6 of the *Institutional Rules*.
- c. A faculty member who violates a prohibition in this Chapter may be disciplined under applicable procedures provided by other rules. If no such procedures exist, violations by faculty members will be referred to the Office of the Executive Vice President and Provost.
- d. A staff member who violates a prohibition in this Chapter may be disciplined under applicable procedures provided by other rules. If no such procedures exist, violations by staff members will be referred to Human Resource Services.
- e. Authorized University personnel may prevent imminently threatened violations, or end ongoing violations, of a prohibition in this Chapter, by explanation and persuasion, by reasonable physical intervention, by arrest of violators, or by any other lawful measures. Alternatively or additionally, they may initiate disciplinary proceedings under Subsection 13–1202(a), Subsection 13–1202(b), or Subsection 13–1202(c). Discretion regarding the means and necessity of enforcement will be vested in the chief of police, or in University personnel designated by the president, as appropriate, but such discretion will be exercised without regard to the viewpoint of any speaker.
- f. University persons and University organizations on the campus will comply with instructions from University administrators and law enforcement officials at the scene. A University person or University

organization that complies with an on-the-scene order limiting speech, expression, or assembly may test the propriety of that order in an appeal under Section 13–1203.

- g. Off-campus person(s) or organization(s) on the campus who violate a prohibition in this Chapter may be subject to criminal trespass charges, arrest, or other lawful measures.

### Sec. 13–1203. Appeals

- a. A University person or organization that is denied permission for an activity requiring advance permission under this Chapter may appeal the denial of permission.
- b. A University person or organization that complies with an on-the-scene order limiting speech, expression, or assembly may, on or before the fifth weekday after complying with the order, file an appeal to determine the propriety of the order limiting the speech, expression, or assembly. The question on appeal will be whether, under the circumstances as they reasonably appeared at the time of the order, the appellant's speech, expression, or assembly should have been permitted to continue. Such an appeal may be useful to clarify the meaning of a rule, or to resolve a factual dispute that may recur if the appellant desires to resume the speech, expression, or assembly that was limited by the order.
- c. An appeal authorized by this Section will be heard under the procedures set out in Subchapter 10–400 of the *Institutional Rules*.

## Chapter 14. Prohibition of Hazing

### Subchapter 14–100. General Provisions

#### Sec. 14–101. Introduction

- a. The University of Texas at Austin is committed to providing a safe educational environment for everyone and does not tolerate hazing by any group or individual affiliated with the University. The University expects that all students and organizations will observe and fully comply with state law, the Regents' *Rules*, University regulations, and administrative rules associated with the prohibition of hazing.
- b. Hazing is prohibited under state law. The University will initiate disciplinary action in response to hazing incidents that take place during official functions of the University or functions sponsored by registered student organizations or sponsored student organizations; the University will also initiate disciplinary action in response to hazing incidents that have a substantial connection to the interests of the University regardless of the location in which they occur, on or off campus. See Texas Education Code, Chapter 37, Subchapter F. Hazing and Section 51.936 for more information.

#### Sec. 14–102. Application

- a. This chapter applies to individual students and organizations and states the function of administrative staff members of the University in disciplinary proceedings.
- b. Individuals who are not currently enrolled at the University remain subject to the disciplinary process for conduct that occurred while they were students.
- c. Students and organizations are subject to discipline for prohibited conduct under this chapter while participating in off-campus activities, whether or not the University sponsors the activities.

#### Sec. 14–103. Definitions

In this chapter, unless the context requires a different meaning, the following definitions apply.

1. "Authorized representative" means a person designated to represent a registered student organization or a sponsored student

organization as required in subsection 6–303(a) of the *Institutional Rules*.

2. “Dean of students” means the dean of students of The University of Texas at Austin or any delegate or representative of the dean of students.
3. “Hazing” or “hazing activity” means any intentional, knowing, or reckless act, occurring on or off of the campus of an educational institution, by one person alone or acting with others, directed against a person, for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in any organization. Hazing includes but is not limited to
  - A. any type of physical brutality, such as whipping, beating, striking, branding, electric shocking, placing of a harmful substance in or on the body, or similar activity;
  - B. any type of physical activity that involves or results in sleep deprivation, exposure to the elements, confinement in a small space, calisthenics, or other activity that subjects the person to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the person;
  - C. any activity involving consumption of a food, liquid, alcoholic beverage, liquor, drug, or other substance, in addition to those described by Paragraph E, that subjects the person to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the person;
  - D. any activity that intimidates, demeans, embarrasses, or threatens the person with ostracism, that subjects the person to stress, shame, or humiliation, that adversely affects the mental health or dignity of the person or discourages the person from entering or remaining registered in an educational institution, or that may reasonably be expected to cause a person to leave the organization or the institution rather than submit to acts described in this subsection;
  - E. any activity that involves coercing, as defined by Section 1.07 Penal Code, a student to consume a drug or an alcoholic beverage or liquor in any amount.;
  - F. any activity that threatens the wellbeing of a person by restricting their ability to communicate with others to get medical help, to document prohibited conduct, or report misconduct; such as, but not limited to, the confiscation of a personal communication device; and
  - G. any activity that induces, causes, or requires the person to perform a duty or task that involves a violation of the Penal Code. See Texas Education Code, Section 37.151(6) for more information.
4. “Organization” means an association, band or musical group, club, corporation, corps, fraternity, order, society, sorority, student government, team, or an academic, athletic, cheerleading, or dance team, including any group or team that participates in National Collegiate Athletic Association competition, or a religious, service, social, or similar group whose members are primarily students, and includes but is not limited to groups with a valid registration under chapter 6 of the *Institutional Rules*. See Texas Education Code, Section 37.151(5) for more information.
5. “Student” means a person who is currently enrolled at the University, or who is accepted for admission or readmission to the University, or who has been enrolled at the University in a prior semester or summer session and is eligible to continue enrollment in the semester or summer session that immediately follows, or who is attending an educational program sponsored by the University while that person is on campus, or who engaged in prohibited conduct while he or she met the above criteria.
6. “University” means The University of Texas at Austin.

## Sec. 14–104. Additional Hazing Examples

In addition to the hazing activities listed in Section 14-103, the following list provides further examples of activities which under certain conditions constitute acts which are dangerous, harmful or degrading, and are in violation of these Institutional Rules on Student Services and Activities. This list is not exhaustive of all conduct that could constitute hazing in violation of this Chapter.

1. calisthenics, such as sit-ups, push-ups or any other form of physical exercise;
2. total or partial nudity at any time;
3. the wearing or carrying of any embarrassing, uncomfortable, degrading, or physically burdensome article;
4. physical contact such as pushing, paddling, tackling, or any other similar contact;
5. throwing any substance on a person;
6. consumption of alcoholic beverages accompanied by either threats or peer pressure;
7. lineups for the purpose of interrogating, demeaning, or intimidating;
8. transportation and abandonment (road trips, kidnaps, walks, rides, drops, etc.);
9. skits or roasts at the expense of a person;
10. forced recitation of facts, songs, or chants, or similar activity;
11. confining individuals in an area that is uncomfortable or dangerous (hot box effect, high temperature, too small, etc.);
12. any form of individual interrogation, yelling, or screaming;
13. any type of servitude that is of personal benefit to the individual members;
14. wearing attire that is embarrassing and not part of a uniform;
15. assigning pranks such as stealing, painting objects, harassing other organizations;
16. intentionally messing up the house or a room for clean up; and
17. requiring boxing matches or fights for entertainment.

## Subchapter 14–200. Prohibited Conduct

### Sec. 14–201. Personal Hazing Offense

A person commits the offense of hazing and is subject to discipline under chapter 11 if the person

1. engages in hazing;
2. solicits, encourages, directs, aids, or attempts to aid another in engaging in hazing;
3. recklessly permits hazing to occur; or
4. has firsthand knowledge of the planning of a specific hazing incident(s) involving a person in an educational institution, or has firsthand knowledge that a specific hazing incident has occurred, and knowingly fails to report that knowledge in writing to the dean of students or other appropriate official of the institution. See Texas Education Code, Section 37.152 for more information.

### Sec. 14–202. Organization Hazing Offense

A student organization commits the offense of hazing and is subject to discipline under chapter 6 if the organization

- a. condones or encourages hazing or if an officer, authorized representative, or any combination of members, potential new members, or alumni of the organization commits or assists in the commission of hazing. See Texas Education Code, Section 37.153 for more information.
- b. conducts an activity, including but not limited to initiations or rituals, that may include any feature that is dangerous, harmful, or

degrading to a person. A violation of this prohibition renders both the organization and participating individuals subject to discipline.

### **Sec. 14–203. Consent Not a Defense**

Hazing with or without the consent of a person is prohibited, whether on or off campus, and a violation of that prohibition renders both the person inflicting the hazing and the person submitting to the hazing subject to discipline. See Texas Education Code, Section 37.154 for more information.

## **Subchapter 14–300. Reporting Hazing**

### **Sec. 14–301. Obligation to Report**

- a. A person who has knowledge of hazing activities or a person who believes that he or she has been subjected to hazing should report the incident(s) at [www.hazing.utexas.edu](http://www.hazing.utexas.edu) to the dean of students or another University official, administrator, or supervisor.
- b. All supervisors, administrators, faculty members, and University officials are responsible for promptly reporting hazing incidents that come to their attention to the dean of students.

### **Sec. 14–302. Immunity from Institutional Discipline**

- a. In an effort to encourage reporting of hazing incidents, the dean of students through written agreement may grant immunity from discipline under subsection 14–401 to a person who voluntarily reports a specific hazing event under subsection 14–301 if the person
  1. reports the incident(s) before being contacted by the dean of students concerning the incident(s) or otherwise being included in the institution's investigation of the incident(s); and
  2. cooperates in good faith by providing a complete and factual account of the incident(s) throughout the disciplinary process.
- b. A person will not be granted immunity under subsection 14–302(a) if the person
  1. reports the person's own act of hazing;
  2. reports an incident of hazing in bad faith or with malice as determined by the dean of students; or
  3. reports the incident after being contacted by the dean of students concerning the incident or otherwise being included in the institution's investigation of the incident.
- c. The dean of students may revoke the immunity granted under subsection 14–302(a) and initiate disciplinary proceedings under subsection 14–401 if the person
  1. is found to have engaged in the hazing activity under investigation;
  2. fails to cooperate fully and in good faith, as determined by the dean of students, by providing a complete and factual account of the incident(s) throughout the disciplinary process regarding the incident(s); or
  3. otherwise acts in bad faith or with malice as determined by the dean of students.
- d. The dean of students will notify a person regarding a grant or revocation of immunity under this section by letter or by e-mail.

### **Sec. 14–303. Immunity from Criminal and Civil Liability**

- a. Immunity from institutional discipline is separate from potential immunity from civil or criminal liability under the law. Texas law - not university policies - determines when such immunity applies. See Texas Education Code, Section 37.155, providing the parameters for immunity from prosecution or civil liability.
- b. A doctor or other medical practitioner who treats a person who may have been subjected to hazing may make a good faith report of the hazing activities to police or other law enforcement officials and is immune from civil or other liability that might otherwise be imposed

or incurred as a result of the report. See Texas Education Code, Section 37.157 for more information.

## **Subchapter 14–400. Administration of Discipline**

### **Sec. 14–401. Individual Discipline**

Notwithstanding any action taken on account of the violation by civil authorities or agencies charged with the enforcement of criminal or civil laws, the dean of students may initiate disciplinary proceedings under chapter 11 of the *Institutional Rules* against a student accused of violating chapter 14.

### **Sec. 14–402. Organizational Discipline**

Notwithstanding any action taken on account of the violation by civil authorities or agencies charged with the enforcement of criminal or civil laws, the dean of students may initiate disciplinary proceedings under chapter 6 of the *Institutional Rules* against an organization accused of violating chapter 14.

### **Sec. 14–403. Interim Disciplinary Action**

Pending a hearing or other disposition of the allegations, the dean of students may take such immediate interim disciplinary action against a student under Chapter 11 or an organization under chapter 6 of the *Institutional Rules* as is appropriate to the circumstances. Failure to comply may result in additional disciplinary action under chapter 6 and/or chapter 11 of the *Institutional Rules*.

### **Sec. 14–404. Potential Criminal Liability**

Under state law, individuals or organizations engaging in hazing may be subject to fines and charged with a criminal offense. See Texas Education Code, Section 51.936 and Section 37.151 et seq. for more information.

## **Appendix D: Policy on Sex Discrimination, Sexual Harassment, Sexual Assault, Sexual Misconduct, Interpersonal Violence, and Stalking**

This policy is no longer published in the university catalog and is now included as part of [HOP 3-3031: Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination](#), effective fall 2020.

See the University Policy Office's website for for current and archived versions of this policy at <https://policies.utexas.edu/>.

## **Appendix E: Policy on Sexual Misconduct**

This policy is no longer published in the university catalog and is now included as part of [HOP 3-3031: Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination](#), effective fall 2020.

See the University Policy Office's website for for current and archived versions of this policy at <https://policies.utexas.edu/>.

# Appendix F: Policy on Consensual Relationships

## I. Policy Statement

The University of Texas at Austin ("University") is committed to maintaining an academic community (including associated teaching, research, working and athletic environments) free from conflicts of interest, favoritism, and exploitation. This policy addresses romantic relationships and/or sexual interactions that, although consensual, may create actual and perceived conflicts of interests, and create the possibility for exploitation or favoritism.

Except as expressly permitted herein, this policy prohibits consensual relationships between:

- employees (including faculty) or University affiliates ("affiliates") and undergraduate students;
- employees (including faculty) or affiliates and any graduate student whom that individual teaches, manages, supervises, advises, or evaluates in any way;
- Intercollegiate Athletics coaches, affiliates, or athletics employees and student-athletes;
- student employees and any student whom that student employee teaches, manages, supervises, advises, or evaluates in any way; and
- employees (including faculty) and/or affiliates where one teaches, manages, supervises, advises, or evaluates the other in any way, unless the person in the position of greater authority or power notifies appropriate University offices and a mitigation plan (as defined below) is in place.

## II. Reason for Policy

The University recognizes that consenting individuals associated with the University should be free to enter into personal relationships of their choice. At the same time, such relationships must not put at risk the fundamental interest of every member of the University community to participate in University activities free from conflicts of interests, favoritism, and/or exploitation. Romantic relationships between certain categories of individuals affiliated with the University risks undermining the essential educational purpose of the University and can disrupt the workplace and learning environment.

## III. Scope and Audience

This policy applies to all University employees (including faculty), student employees, students, and affiliates. This policy is applicable regardless of the sex/gender of the individual with managerial, supervisory, teaching, evaluation, coaching or advisory authority, and/or the sex/gender of the individual who is managed, supervised, taught, coached, advised, or evaluated in any way.

## IV. Definitions (specific to this policy)

**Coach:** Any person serving in the capacity as an Intercollegiate Athletics head coach, associate head coach, assistant coach, graduate assistant coach, coaching intern, volunteer coach, or any individual exercising coaching responsibilities.

**Consensual Relationship:** A romantic relationship and/or sexual interaction agreed to by the involved parties.

**Employee:** Except as specifically stated herein, employee includes faculty, classified staff, administrative and professional staff, post-doctoral positions, and employee positions requiring student status.

**Mitigation Plan:** A written plan developed as provided in this policy that mitigates the conflict of interest and the potential for exploitation or the appearance of exploitation or favoritism created by the consensual relationship and which plan is acknowledged and signed by the parties involved.

**Student-Athlete:** Any student (undergraduate or graduate) who is currently participating as a member of an intercollegiate varsity sport sponsored by the University.

**Supervisee:** Any individual whose terms and conditions of employment, student, student-athlete, or affiliate status are controlled or affected by a supervisor, as defined by this policy.

**Supervisor:** An employee (including faculty), student, or affiliate who:

- teaches, manages, supervises, advises, coaches, or evaluates in any way other employees, students, student-athletes, or affiliates; and/or
- has a position of power, control, or the ability to influence decisions with regard to other individuals in the learning, intercollegiate athletics, or working environment of the University.

**University Affiliate:** An individual associated with the University in a capacity other than as a student or employee who has access to University resources through a contractual arrangement or other association that has been reviewed and approved in accordance with guidelines established by Human Resources ("HR"), the Executive Vice President and Provost ("EVPP"), or the Vice President for Research. Examples of a University Affiliate may include, but are not limited to:

- employees of contractors hired to conduct repair work at the University;
- employees of vendors engaged to provide training to University administrators;
- health care providers retained by the University to provide medical services to students/staff;
- volunteers in academic and/or operational units within the University; and
- post-doctoral positions who receive external funding;
- researchers or recent graduates who are self-funded or independently funded, but utilize University facilities to further the University's research endeavors.

Additional information regarding other types of University Affiliates may be found at: <http://www.utexas.edu/business/erp/hrms/help/UniversityAffiliateTypes.php>

## V. Website (for policy)

<https://policies.utexas.edu/policies/hop/3-3050>

## VI. Contacts

### Office for Inclusion and Equity

Phone: 512-471-1849

Website: <http://equity.utexas.edu/>

Email: [equity@austin.utexas.edu](mailto:equity@austin.utexas.edu)

### University Compliance Services

Phone: 512-232-7055

Website: <https://compliance.utexas.edu/>

### Human Resources- Strategic Workforce Solutions

Phone: 512-475-7200 or 512-232-3523

Website: <https://hr.utexas.edu/current/services/>

Email: [hrs.sws@austin.utexas.edu](mailto:hrs.sws@austin.utexas.edu)

### Employee Assistance Program

Address: UTA room 2.304, 1616 Guadalupe, Austin, TX 78701

Phone: 512-471-3366

Website: <http://hr.utexas.edu/eap/>

Email: [eap@austin.utexas.edu](mailto:eap@austin.utexas.edu)

### Office of the Dean of Students - Student Emergency Services

Phone: 512-471-5017

Website: <http://deanofstudents.utexas.edu/emergency>

Email: [studentemergency@austin.utexas.edu](mailto:studentemergency@austin.utexas.edu)

### UT Counseling and Mental Health Center

Phone: 512-471-3515

Website: <https://cmhc.utexas.edu/>

### Intercollegiate Athletics - Human Resources

Phone: 512-232-1276

Website: <http://texassports.com/HR>

### Office of the Executive Vice President and Provost

Phone: 512-471-4363

Website: <https://provost.utexas.edu/>

## VII. Responsibilities and Procedures

### A. Prohibited Consensual Relationships

The following consensual relationships, even if a single interaction, are prohibited and cannot be mitigated by a mitigation plan.

1. Considering the potential for exploitation or the appearance of exploitation or favoritism and the inherent differential in authority, the University prohibits any employee (including faculty) or affiliate

of the University from engaging in a consensual relationship with any student currently enrolled as an undergraduate at the University.\*

\**Note:* "Employee"; as used in Section VII.A.1 does not include student employees. See Section VII.A.4 below for prohibitions applicable to University student employees. Also, for purposes of this policy, the term "undergraduate" does not include any individual who is considered an undergraduate at the University solely because the individual is taking course(s) through the Staff Educational Benefit offered to University employees.

2. Considering the potential for exploitation or the appearance of exploitation or favoritism and the inherent differential in authority between graduate students and their educators, advisors, supervisors, and others holding positions of authority over them, the University prohibits any employee (including faculty) or affiliate of the University from engaging in a consensual relationship with any graduate student whom they teach, manage, supervise, advise, or evaluate in any way.
3. Considering the potential for exploitation or the appearance of exploitation or favoritism and the inherent differential in authority, the University prohibits consensual relationships between Intercollegiate Athletics coaches, employees, or affiliates, with any student-athlete or student assigned to or associated with Intercollegiate Athletics, such as interns and student employees.

\**Note:* "Employee" as used in Section VII.A.3 does not include student employees except for those who teach, manage, supervise, advise, coach, or evaluate any student-athlete or student assigned to or associated with Intercollegiate Athletics.

4. Considering the potential for exploitation or the appearance of exploitation or favoritism and the inherent differential in authority, the University prohibits any student employee (including resident life advisors/assistants, assistant instructors, teaching assistants, graduate research assistants, etc.) from engaging in a consensual relationship with any student whom they teach, manage, supervise, advise, or evaluate in any way.

### B. Reporting Requirements

1. Considering the potential for exploitation or the appearance of exploitation or favoritism and the inherent differential in authority, the University prohibits consensual relationships between employees (including faculty) and/or affiliates where one teaches, manages, supervises, advises, or evaluates the other in any way unless the person in the position of greater authority or power notifies appropriate University offices (as detailed in Section VII.B.2.a of this policy) and a mitigation plan is put in place that mitigates the conflict of interest and the potential for exploitation or the appearance of exploitation or favoritism.

2. In the event a consensual relationship exists between employees (including faculty) and/or affiliates, the following steps **must immediately** be followed by the person in the position of greater authority or power:
  - a. report the consensual relationship to the appropriate dean and the EVPP (when the relationship involves a faculty member), and/or the appropriate unit head and HR (when the relationship involves a staff member and/or affiliate);
  - b. report any relationship that currently exists prior to the effective date of this policy to the University offices specified above as soon as possible and cooperate in the development of a mitigation plan as outlined in Section VII.C, below;
  - c. cooperate in the development of a mitigation plan designed to reduce or eliminate the conflict of interest and the potential for exploitation or the appearance of exploitation or favoritism.
3. If a consensual relationship exists between employees of the University and one of those employees is presented with the opportunity to teach, manage, supervise, advise, or evaluate the other in any way, the existing relationship must be reported by the individual in the position of greater authority or power to the appropriate University offices designated above as soon as possible and prior to the individual accepting a role that would create a conflict of interest and the potential for exploitation or the appearance of exploitation or favoritism, and a mitigation plan must be developed.
4. Departments and offices that receive reports of consensual relationships as outlined in this policy will notify the applicable VP, Dean, or the EVPP, each of whom will, in turn, notify OIE of the relationship and provide OIE a copy of the mitigation plan for record keeping purposes.

#### C. Mitigation Plan

1. If the conflict of interest and the potential for exploitation or the appearance of exploitation or favoritism can be successfully mitigated and managed, a written mitigation plan will be produced within ten (10) business days of the report (unless there are reasonable grounds for additional time) by the appropriate chair, dean, and EVPP (when the relationship involves a faculty member) or the appropriate unit head, OIE, and HR (when the relationship involves a staff member and/or University affiliate) in collaboration with both parties to the consensual relationship.
2. If the mitigation plan is not agreed to by all parties to the plan, resolution of the disagreement will be handled through consultation with the appropriate vice president of the individual(s) opposing the plan and OIE. In the case of a relationship involving individual(s) associated with Intercollegiate Athletics, the consultation will involve the Office of

the Senior Vice President and Chief Financial Officer and OIE.

3. If the conflict of interest and potential for exploitation or the appearance of exploitation or favoritism created by the consensual relationship cannot be successfully mitigated and managed, then the consensual relationship is prohibited.
4. The mitigation plan will:
  - a. provide an alternative means for managing, supervising, teaching, evaluating and/or advising of the supervisee or otherwise mitigate the conflict;
  - b. give priority to the interest of the supervisee;
  - c. be in writing and signed by both parties to the consensual relationship;
  - d. provide notice of HOP 3-3031 - Prohibition of Sexual Discrimination, Sexual Assault, Sexual Misconduct, Interpersonal Violence, and Stalking; and
  - e. be reassessed on an annual basis (or sooner if circumstances warrant) by the parties, and the applicable department/unit for necessary modification.

#### D. Exemptions

Exemptions to any of these provisions will be considered on a case-by-case basis and will be approved by the Senior Associate Vice President - Division of Diversity and Community Engagement, with input from the supervisor(s) of the individual(s) involved.

Questions about the application or effect of this policy to an existing or potential relationship should be directed to OIE, HR and/or the EVPP. This policy is not intended to apply to marriage relationships. Refer to HOP 5-1260 - Employment of Close Relatives (Nepotism), for information concerning these types of relationships.

#### E. Reporting Alleged Violations

An employee (including faculty) or affiliate who is notified, or becomes aware of, an alleged violation of this policy has an obligation to report it timely. You will find a list of reporting options here:

Office for Inclusion and Equity:  
Phone: 512-471-1849  
Website: <http://equity.utexas.edu/>

University Compliance Services:  
Phone: 512-232-7055  
Website: <https://compliance.utexas.edu/>

Human Resources:  
Phone: 512-475-7200

Website: <https://hr.utexas.edu/current/services/>

#### Student Emergency Services:

Phone: 512-471-5017

Website: <http://deanofstudents.utexas.edu/emergency/index.php>

#### Counseling and Mental Health Center:

Phone: 512-471-3515

Website: <https://cmhc.utexas.edu/>

Anonymous Reporting:  
Compliance and Ethics  
Hotline

Phone: English 877-507-7321

Español 800-216-1288

Website: <https://utexas.edu/hotline>

### F. Investigation and Discipline

1. Alleged violations of this policy, including concerns of conflicts of interests, favoritism, and/or exploitation will be investigated by OIE in collaboration with the Office of the Vice President for Legal Affairs.
2. If there is a complaint of sexual harassment/sexual misconduct relating to a relationship covered by this policy, and the relationship has not been disclosed and no Mitigation Plan is in place, the responsibility will be on the person in the position of greater authority or power to explain the failure to comply with this policy. Such failure will be a factor in determining whether the relationship was consensual and free of sexual harassment/misconduct.
3. Disciplinary action against faculty and staff will be handled under the University's policies for discipline and dismissal of faculty and staff. Disciplinary actions may include, but are not limited to, written reprimands, the imposition of conditions, reassignment, suspension, and dismissal. Affiliates in violation of this policy may be disciplined as appropriate under the circumstances.

### G. Safe Harbor

It is critical the University receive notification of consensual relationships covered by this policy so as to prevent conflicts of interest, favoritism, and exploitation. Unreported consensual relationships pose a significant risk to the University community. With this in mind, if the person in the consensual relationship who is in the position of greater authority or power **immediately notifies** appropriate University offices of the development of a consensual relationship covered by this policy and cooperates to mitigate the effects of the consensual relationship, then a conduct/discipline investigation may not be pursued. Unreported consensual relationships will be considered more severe violations of this policy.

\*Note: This safe harbor provision does not apply to potential violations of [HOP 3-3031](#) - Prohibition of

Sexual Assault, Sexual Misconduct, Interpersonal Violence, and Stalking.

### H. Retaliation Prohibited

Retaliation against a person who reports a potential violation under this policy, assists someone with a report of a violation, or participates in any manner in an investigation or in the resolution of a complaint made under this policy is strictly prohibited and will not be tolerated. Retaliation includes, but is not limited to threats, intimidation, reprisals and/or adverse actions related to an individual's employment or education. The University will take appropriate steps to assure a person who in good faith reports, complains about, or participates in an investigation pursuant to this policy will not be subjected to retaliation. Individuals who believe they are experiencing retaliation are strongly encouraged to lodge a complaint with OIE and/or UCS.

### I. Counseling

Confidential counseling services are available to employees through the [Employee Assistance Program](#) at 512-471-3366 and to students through the [UT Counseling and Mental Health Center](#) at 512-471-3515.

### VIII. Forms and Tools

Office for Inclusion and Equity Forms:

[File a Complaint](#)

[Report a Departmental Concern](#)

[University Compliance Services - Hotline](#)

### IX. Frequently Asked Questions

[Consensual Relationships FAQs](#)

### X. Related Information

[University Affiliates](#)

[HOP 3-3031](#) "Prohibition of Sexual Discrimination, Sexual Harassment, Sexual Assault, Sexual Misconduct, Interpersonal Violence, and Stalking"

For Employees - [Employee Assistance Program](#)

For Students - [UT Counseling and Mental Health Center](#)

[UTS184](#) Consensual Relationships

Regents' *Rules and Regulations*, [Rule 30105](#) Sexual Harassment, Sexual Misconduct, and Consensual Relationships

[HOP 3-1022](#) Protection from Retaliation for Suspected Misconduct Reporting (Whistleblower)

[HOP 5-1260](#) Employment of Close Relatives (Nepotism)

### XI. History

Revision date: January 3, 2017

Original effective date: November 1, 2001

Previously PM 4.110, HOP 4.A.2

# Appendix G: Policy on AIDS and HIV Infection

## Background

The University of Texas at Austin recognizes human immunodeficiency virus (HIV) as a serious public health threat and is committed to promoting an informed, educated and responsive University community regarding HIV and the associated Acquired Immune Deficiency Syndrome (AIDS). This policy provides the framework for managing risks associated with HIV and AIDS in compliance with state laws and in the context of the medical, educational, legal, administrative, and ethical issues involved.

The reason for this policy is to provide the roles and responsibilities for responding to specific situations involving persons with AIDS or HIV infections in compliance with Texas Administrative Code (Title 25, part 1, chapter 96, Bloodborne Pathogen Control) and Texas Education Code (Sec. 51.919 HIV and AIDS Policy; Information Dissemination) covering areas of administrative policy, residence life, health education, testing, confidentiality, and patient care.

Throughout this appendix, "HIV infection" denotes the total spectrum of the disease, from HIV seropositive but asymptomatic infection to fully developed AIDS.

## General Policies

1. **Institutional committee.** The University establishes the Bloodborne Pathogens Control Committee (BPCC) authorized to annually review and update the University's written Bloodborne Pathogens Exposure Control Plan. The committee will be minimally comprised of representatives from the Environmental Health & Safety (EHS) department, University Health Services (UHS), the HealthPoint Occupational Health Program and representation from departments that employ workers with reasonable anticipation of exposure to bloodborne pathogens, including HIV.
2. **Admissions.** The existence of HIV infection will not be considered in admissions decisions unless current scientific information indicates required academic activities may expose others to risk of transmission.
3. **Employment.** The existence of HIV infection will not be used to determine suitability of applicants for employment by the University. An HIV-infected employee will remain employed as long as he or she is able to perform the essential functions of the job and is able to meet the job performance standards.
4. **Class attendance.** A student with HIV infection will be allowed to attend all classes without restrictions, as long as the student is physically and mentally able to participate and perform assigned work, and poses no health risk to others.
5. **Facilities Access.** A person with HIV infection will not be denied access to any University facility on the basis of HIV-positive status.
6. **Residential housing.** The University residential housing staff will not exclude HIV-positive students from University housing, and will not inform other students that a person with HIV infection lives in University housing.
7. **Safety precautions.** The University has guidelines for health care workers and students in the health professions concerning the prevention of transmission of bloodborne pathogens, which includes HIV among others. Training requirements are detailed in the University's Bloodborne Pathogens Exposure Control Plan.
8. **Education, Risk Management and Safety.**
  - a. **Education on HIV prevention provided to students.** The University will routinely offer education to students based on HIV education and prevention programs. These programs will be developed in conjunction with federal and state health agencies and other health authorities and will be tailored to students' cultural, educational, language, and developmental needs. UHS will provide information to students pertaining to HIV infection on a variety of related topics. UHS will also make referrals for anonymous HIV counseling and testing services.
  - b. **Laboratory courses.** Department managers/heads of departments offering lab courses or operating labs where possible risk of exposure to material that has potential for transmitting HIV must develop written, lab safety protocol using standard precautions for handling such material. This written protocol must be distributed to students and staff members prior to such exposure in accordance with the Bloodborne Pathogens Exposure Control Plan.
  - c. **Education of students entering health professions.** Each college or school offering medical, dental, nursing, allied health, counseling, and/or social work degree programs must ensure its program curricula contains information about:
    1. methods of transmission and methods of prevention of HIV infection;
    2. federal and state laws, rules, and regulations concerning HIV infection and AIDS; and
    3. the physical, emotional, and psychological stress associated with the care of patients with incurable illnesses.
  - d. **Education of employees where risk of exposure to HIV may be part of their employment duties.** Departments requiring employees to perform employment duties where risk of exposure to HIV is possible will provide training about HIV transmission specific to their employment duties and methods to minimize or eliminate that risk by following standard precautions. Standard precautions includes an overview of the engineering controls, administrative controls, and personal protective equipment used to minimize or eliminate risk of exposure. The University's Bloodborne Pathogens Exposure Control Plan includes information specific to HIV and standard precautions.
9. **Confidentiality of Records.** Except where release is required or authorized by law, information concerning the HIV or AIDS status of students, employees, or patients, and any portion of a medical record will be kept confidential and will not be released without written consent. Information concerning HIV or AIDS status held in non-medical records will be limited to that which is necessary to determine reasonable accommodations, if applicable, or to investigate an occupational exposure. Non-medical records containing personal health information (PHI) will follow privacy standards established by federal and state law.
10. **HIV testing and bloodborne pathogens post-exposure testing.** In the event of a work-related bloodborne pathogens exposure, the employee must contact the HealthPoint Occupational Health Program as soon as practical for guidance on post-exposure testing services, available at no cost to the employee. Refer to the University's Bloodborne Pathogens Exposure Control Plan for details. Students may obtain HIV testing services from UHS.
11. **Unemployment compensation benefits.** When applicable, the University will inform employees that state law provides that an individual will be disqualified for unemployment compensation benefits if the Texas Workforce Commission finds the employee left work voluntarily rather than provide services included within the course and scope of employment to an individual infected with a communicable disease, including HIV. This disqualification applies

if the University provided facilities, equipment, training, and supplies necessary to take reasonable precautions against infection.

12. **Health benefits.** No University student or employee will be subjected to impermissible discrimination under a health benefits plan endorsed by the University on the basis of a positive HIV test result.

Policy Website: Excerpted from the *Handbook of Operating Procedures*, 3-1310

## Appendix H: Prohibition of Sexual Assault

This policy is no longer published in the university catalog and is now included as part of HOP 3-3031: Prohibition of Sexual Assault, Interpersonal Violence, Stalking, Sexual Harassment, and Sex Discrimination, effective fall 2020.

See the University Policy Office's website for for current and archived versions of this policy at <https://policies.utexas.edu/>.

## Appendix I: Nondiscrimination Policy

### I. Policy Statement

It is the policy of The University of Texas at Austin ("University") to provide an educational and working environment that provides equal opportunity to all members of the University community. In accordance with federal and state law, the University prohibits unlawful discrimination, including harassment, on the basis of race, color, religion, national origin, sex, pregnancy[1], age, disability, citizenship, veteran status and genetic information. The University also prohibits discrimination on the basis of, sexual orientation, gender identity, and gender expression. Procedures for filing discrimination complaints on the basis of sex, including sexual harassment, are addressed by HOP 3-3031. In this policy, the terms sex and gender are interchangeable.

Inquiries regarding this policy may be directed to the Office for Inclusion and Equity at 512-471-1849 or [oie@austin.utexas.edu](mailto:oie@austin.utexas.edu).

### II. Reason for Policy

This policy provides information regarding the University's prevention and education efforts related to discrimination and harassment. The policy also explains how the University will proceed once it is made aware of the allegations of prohibited conduct in keeping with the University's values and in order to meet the legal obligations of Title VI, Title VII, and Title IX, and other applicable laws.

### III. Scope & Audience

This policy applies to visitors, applicants for admission to or employment with the University, students, and employees of the University who allege discrimination by University employees, students, visitors, or contractors.[2]

### IV. Definitions (specific to this policy)

#### A. Complaint:

Complaint means a signed document or other report, including verbal reports (if appropriately acknowledged), alleging a violation of this policy.

#### B. Complainant:

Complainant means a person who submits a complaint alleging a violation of this policy.

#### C. Discrimination:

Conduct directed at a specific individual or a group of identifiable individuals that subjects the individual or group to treatment that adversely affects their employment or education because of their race, color, religion, national origin, sex (including pregnancy), age, disability, citizenship, veteran status, sexual orientation, gender identity, or gender expression.

#### D. Harassment:

As a form of discrimination is defined as verbal or physical conduct that is directed at an individual or group because of race, color, religion, national origin, sex, pregnancy, age, disability, citizenship, genetic information, veteran status, sexual orientation, gender identity, or gender expression when such conduct is sufficiently severe or pervasive so as to have the purpose or effect of interfering with an individual's or group's academic or work performance; or of creating a hostile academic or work environment.

#### E. Notification:

Notification takes place two days after the date of posting of any document in the United States mail, properly addressed, or upon the date of receipt of any document, when placed in the campus mail, properly addressed. Written communications to a complainant are properly addressed when sent to the address given in the complaint or the last address given since the filing of the complaint. Notification may also take place on the date any document is sent by electronic mail and/or facsimile, when properly addressed.

#### F. Respondent:

Respondent means the person designated to respond to a complaint. Generally the respondent would be the person alleged to be responsible for the prohibited discrimination or harassment alleged in a complaint. The term "Respondent" may be used to designate persons with direct responsibility for a particular action or those persons with administrative responsibility for procedures and policies in those areas covered in a complaint.

#### G. Verbal conduct:

Is defined as oral, written, or symbolic expressions that:

- personally describe or is personally directed at a specific individual or group of identifiable individuals; and
- is not necessary to an argument for or against the substance of any political, religious, philosophical, ideological, or academic idea.

Constitutionally protected expression cannot be considered harassment under this policy[3].

### V. Website (for policy)

<https://policies.utexas.edu/policies/hop/3-3020>

### VI. Contacts

Office for Inclusion and Equity  
Phone: 512-471-1849  
[oie@austin.utexas.edu](mailto:oie@austin.utexas.edu)  
<http://equity.utexas.edu>

Office of the Dean of Students  
Phone: 512-471-5017  
[deanofstudents@austin.utexas.edu](mailto:deanofstudents@austin.utexas.edu)

## VII. Responsibilities & Procedures

### 1. General Procedures

#### A. Reporting

A person who believes that he or she has been subjected to discrimination or harassment in violation of this policy should report the incident to any University official, administrator, supervisor or any other employee who has the authority to take action to redress an alleged violation and/or has the duty of reporting such allegations as defined under "responsible employee" in [HOP 3-3031](#). Students are encouraged to report such incidents to the [Office of the Dean of Students](#); employees and campus visitors are encouraged to report to the Office for Inclusion and Equity ("OIE"). Incidents should be reported as soon as possible after the time of their occurrence. No person is required to report discrimination or harassment to the alleged offender.

#### B. Reporting Responsibility

Every supervisor, administrator, University official or any other employee who has the authority to take action to redress an alleged violation and/or has the duty of reporting such allegations as defined under "responsible employee" in [HOP 3-3031](#) is responsible for promptly reporting incidents of discrimination and harassment in violation of this policy that come to their attention to either the Office of the Dean of Students or OIE.

#### C. Responsibility to Cooperate

Faculty, staff, and students must cooperate with University investigations concerning allegations of discrimination or harassment. Refusal to cooperate with an investigation may result in disciplinary action.

### 2. Informal Resolution Procedure

#### A. Informal Resolution

Informal resolution may be an appropriate choice when the conduct involved is not of a serious or repetitive nature and disciplinary action is not required to remedy the situation. No formal investigation is involved in the informal resolution process and no finding is made.

A request for informal resolution should be made within 180 calendar days of the date of the alleged incident to either the Office of the Dean of Students or OIE, who will determine whether the nature of the problem is such that it can be resolved by agreement on an informal basis, and if so, which office will do so.

Methods for informal resolution may include, but are not limited to: coaching the person on how to directly address a situation which is causing a problem; mediating the dispute with the parties; aiding in the modification of a situation in which the offensive conduct occurred; assisting a department or division with the resolution of a real or perceived problem; or arranging a documented meeting with the alleged offender that involves a discussion of the requirements of the Nondiscrimination Policy.

The University will document any informal resolution. Such documentation will be retained by the Office of the Dean of

### 3. Formal Complaint Resolution Procedure

#### A. Complaint Procedure

1. **Complaint.** A complaint alleging discrimination or harassment must be submitted to the Office for Inclusion and Equity or the Office of the Dean of Students. The complaint should contain the following information:

- Name and UT Identification Number of the Complainant(s);
- Contact information, including address, telephone, e-mail;
- Name of person(s) directly responsible for alleged violation(s);
- Date(s) and place(s) of alleged violation(s);
- Nature of alleged violation(s) as defined in this policy;
- Detailed description of the specific conduct that is the basis of alleged violation(s);
- Copies of documents pertaining to the alleged violation(s);
- Names of any witnesses to alleged violation(s) and witnesses' contact information;
- Action requested to resolve the situation;
- Complainant's signature and date of filing; and
- Any other relevant information.

While an investigation may begin on the basis of an oral complaint, the complainant is strongly encouraged to file a written complaint. If the complaint is not in writing, the investigator should prepare a statement of what he or she understands the complaint to be and seek to obtain verification of the complaint from the complainant.

ii. **Time Limit.** A signed complaint must be filed within 180 calendar days of the occurrence of the alleged violation in order to ensure prompt and efficient handling and resolution. At the discretion of OIE or the Office of the Dean of Students, the 180 day filing period may be extended for good cause.

iii. **Acknowledgement.** Within five (5) calendar days after receipt of a signed complaint, OIE or the Office of the Dean of Students, as appropriate, will send the complainant a brief acknowledgment of the complaint, stating that the complaint will be evaluated, and advising the complainant(s) that he or she will be contacted within a given time. The acknowledgment letter will include a copy of these complaint procedures.

iv. **Complaint Evaluation.** A formal investigation will be initiated if a complaint is complete, within the scope of this policy and articulates sufficient specific facts, which, if determined to be true, would support a finding that this policy was violated. The University may not proceed with a complaint investigation under a variety of circumstances, for instance:

- a complaint fails to describe in sufficient detail the conduct that is the basis of the complaint;
- the conduct described in the complaint is not covered by this policy;
- the complaint has been withdrawn; or

- an appropriate resolution or remedy has already been achieved, or has been offered and rejected.

In the event that a Formal Complaint has been filed and if it is determined that the University will not proceed with a complaint investigation, OIE or the Office of the Dean of Students, as appropriate, will send a notification letter explaining the reason(s) to the complainant. The notification letter will also include a statement informing the complainant that, within seven (7) calendar days of the notification, he or she may appeal the determination not to proceed with a complaint investigation to the vice president for the Division of Diversity and Community Engagement or the vice president for Student Affairs, as appropriate. The request for appeal must be a signed, written document articulating why the decision to dismiss the complaint was in error. The appropriate vice president will respond within ten (10) calendar days of receipt of the appeal. If the decision to dismiss is upheld, that decision is final. If the decision to dismiss is overturned, the complaint is sent back to OIE or the Office of the Dean of Students, as appropriate, for investigation in accordance with the procedures outlined below.

Notwithstanding the above, OIE may initiate an investigation at the request of Human Resources representatives, deans, directors, department heads, or vice-presidents, or at OIE's sole discretion when the facts or circumstances warrant such.

- v. **Notification of Respondent.** If it is determined that the University will proceed with a complaint investigation, OIE or the Office of the Dean of Students will give the respondent written notification of the complaint investigation. The notification letter will include a statement of the allegations to be investigated. The notification letter will provide the respondent an opportunity to submit a written response to the allegations within seven (7) calendar days, unless unusual circumstances warrant additional time. The notification letter will include a statement advising the respondent that retaliation against the complainant is prohibited and will subject the respondent to appropriate disciplinary action.
  - vi. **Investigation Responsibility.** The Office of the Dean of Students is responsible for conducting formal investigations of complaints against students alleging discrimination and harassment in violation of this policy<sup>14</sup>. OIE is responsible for conducting formal investigations of complaints against non-students alleging discrimination and harassment in violation of this policy. In the event that a respondent is a student and an employee, OIE will make a determination whether the alleged discriminatory act(s) relates to the respondent's employment. OIE will only initiate an investigation and/or informal resolution if OIE determines that the alleged discriminatory act(s) relates to the respondent's employment. If a complaint is directed against an individual who would otherwise play a role in investigating and attempting to resolve the complaint, the function assigned to that person by these procedures will be delegated to another person.
  - vii. **Investigative Process and Findings.** The investigator will interview both the complainant and the respondent(s) and persons who are considered to have pertinent factual information related to the complaint. The investigator will also gather and examine documents relevant to the complaint.
- Facts will be considered on the basis of what is reasonable to persons of ordinary sensitivity and not on the particular sensitivity or reaction of an individual. Findings will be based on the totality of circumstances surrounding the conduct complained of, including but not limited to: the context of that conduct, its severity, frequency, and whether it was physically threatening, humiliating, or was simply offensive in nature.
- viii. **Advisor.** During the complaint process, the complainant(s) and the respondent(s) may designate and thereafter be accompanied by an advisor of his or her choosing at meetings and interviews at which he or she is present; however, no advisor may examine witnesses or otherwise actively participate in a meeting or interview. An individual may only have one advisor present at a time.
  - ix. **Submission of Evidence.** During the complaint investigation process, the complainant(s) and the respondent(s) should provide OIE or the Office of the Dean of Students, as appropriate, with all documents and the identity of witnesses with a summary of the information the witness can provide regarding the issues raised in the complaint.
  - x. **Report of Findings and Recommendation - Complaints Against Non-Students and Student Employees**
    - a. The investigator will provide a proposed statement of findings, copies of relevant documents and any physical evidence considered to the appropriate vice president or designee within sixty (60) days of receipt of the respondent's statement, unless unusual circumstances require more time. The appropriate vice president to act on complaints against faculty and staff will be the vice president or designee over for the area where the respondent is employed. The appropriate vice president to act on complaints against contractors and visitors will be the vice president for the Division of Diversity and Community Engagement or designee. If a complaint is directed against a vice president who would otherwise act on a complaint, the function assigned to that vice president will be delegated to another person.
    - b. The appropriate vice president or designee will promptly notify the complainant and the respondent that the investigation has been completed and attach a copy of the proposed statement of findings. Student identifiable information, if any, which is confidential by law, will be redacted. Within ten (10) calendar days from the date of notification, the complainant and respondent may each submit, for consideration by the appropriate vice president or designee, such comments and corrections as they may have.
    - c. Within fifteen (15) working days of the notification to the complainant and respondent that the investigation has been completed, the appropriate vice president or designee and the investigator should discuss the findings, and review the record, along with any comments and proposed corrections submitted by the complainant and respondent, if necessary. Further, the appropriate vice president or designee will take one of the following actions: a) request further investigation into the complaint; b) dismiss the complaint if the results of the completed investigation are inconclusive or there is insufficient reasonable, credible

evidence to support the allegation(s); or c) find that this policy was violated.

- d. If the appropriate vice president or designee determines that this policy was violated, he or she, following consultation with the investigator or other knowledgeable persons as appropriate, shall determine a disciplinary action that is appropriate for the severity of the conduct, and take whatever other action is necessary to end the discrimination or harassment. Disciplinary actions can include, but are not limited to, written reprimands, the imposition of conditions, reassignment, suspension without pay, and termination.
- e. The appropriate vice president or designee will inform the complainant and respondent, and the appropriate unit head in writing of his or her decision, and will attach a copy of the final statement of findings. Copies of the vice president's or designee's letter, the attached statement of findings, and relevant documents will also be sent to the Office of the Dean of Students or OIE as appropriate.

**xi. Report of Findings and Recommendation - Complaints Against Students**

- a. The investigator will provide a proposed statement of findings, copies of relevant documents and any physical evidence considered to the Dean of Students, or his or her designee, within thirty (30) working days of receipt of the respondent's statement, unless unusual circumstances require more time.

The Dean of Students or designee and the investigator will meet within fifteen (15) working days to discuss the findings, and review the record.

- b. Within fifteen (15) working days from that meeting, the Dean of Students or designee shall take one of the following actions: a) request further investigation into the complaint; b) dismiss the complaint if the results of the completed investigation are inconclusive or there is insufficient reasonable, credible evidence to support the allegation(s); or c) find that this policy was violated.
- c. If the Dean of Students or designee determines that this policy was violated, the dean, following consultation with the investigator or other knowledgeable persons as appropriate, will determine whether to initiate a disciplinary action appropriate to the severity of the conduct pursuant to the *General Information Catalog*, Appendix C, Chapter 11 - Institutional Rules on Student Services and Activities. Disciplinary actions can include, but are not limited to, a documented warning, the imposition of conditions, probation, suspension, and dismissal.
- d. As required by federal law, any disclosure of the findings and decision of the Office of the Dean of Students will be governed by the provisions of the Family Educational Rights and Privacy Act.

**4. Miscellaneous**

**A. Grievance of a Disciplinary Action**

- i. Any employee disciplined pursuant to this policy, except faculty, teaching assistants, assistant instructors or members of the University of Texas

Police Department (each of whom are subject to separate procedures[2], may grieve that action by submitting a written grievance, within ten (10) working days of the imposition of the disciplinary action, to the President's Office. Ordinarily, the president will assign responsibility for review and action on the appeal of the vice president's action to another vice president; however, when required by unusual circumstances, the president may review and handle a grievance pursuant to this policy.

- ii. If the disciplinary action that is being grieved does not involve termination, demotion, or suspension without pay, the vice president will thoroughly review and finally decide the matter within thirty (30) calendar days of its receipt unless unusual circumstances require more time.
- iii. If the disciplinary action that is being grieved involves the termination, demotion or suspension without pay of an employee who is covered by the Handbook of Operating Procedures, HOP 5-2420 the vice president who is assigned to review the grievance will follow the procedures for appealing such actions contained in that section. Complainants will be required to appear and testify at hearings that may be a part of such proceedings.
- iv. Any student disciplined under this policy has the right to appeal as provided in *General Information Catalog*, Appendix C, Chapter 11- Institutional Rules on Student Services and Activities.

**B. Retaliation Prohibited**

A student, faculty, or staff member who retaliates in any way against an individual who has brought a complaint pursuant to this policy or participated in good faith in an investigation of such a complaint is subject to disciplinary action, up to and including dismissal from the University.

**C. Filing of False Complaints**

Any person who knowingly and intentionally files a false complaint under this policy is subject to disciplinary action up to and including dismissal from the University.

**D. Effect on Pending Personnel Actions**

The filing of a discrimination or retaliation complaint will not stop or delay any evaluation or disciplinary action related to the complainant who is not performing up to acceptable standards or who has violated University rules or policies.

**E. Relationship of Complaint Process to Outside Agency Time Limits**

The filing of a discrimination or harassment complaint under this policy does not excuse the complainant from meeting the time limits of outside agencies.

**F. Relationship to Grievance Procedure**

This complaint procedure will also constitute the grievance procedure for complaints alleging unlawful discrimination. As used herein, "complaint" is synonymous with "grievance."

**G. Time Frames**

Time frames mentioned in these procedures may be extended for good cause, such as holidays or when classes are not in session, or when it is necessary to

complete an investigation due to difficulties reaching witnesses or parties to the complaint.

#### H. Documentation and Confidentiality

The University will maintain documents related to complaints under this policy as required by law. The Office of the Dean of Students will be responsible for records related to complaints against students. The Office for Inclusion and Equity will be responsible for records related to complaints against non-students. The confidentiality of a complaint under this policy and all documents, correspondence, interviews and discussions relating to the investigation of the information contained in a complaint will be maintained on a need to know basis to the extent permitted by law. Any person who knowingly and intentionally makes an unauthorized disclosure of confidential information contained in a complaint or otherwise relating to the investigation of a complaint under this policy is subject to disciplinary action.

**For Assistance:** Questions regarding this policy should be directed to the Office of the Dean of Students or the Office for Inclusion and Equity.

Sources: Titles VI and VII of the Civil Rights Act of 1964, as amended; Age Discrimination in Employment Act of 1967, as amended; Age Discrimination Act of 1975; Americans with Disabilities Act of 1990; Equal Pay Act of 1963; Title II of the Genetic Information Nondiscrimination Act of 2008; Veterans Readjustment Act of 1974; Executive Order of 11246; Sections 503 and 504 of the Rehabilitation Act of 1973; Title IX of the Education Amendments of 1972; Texas Labor Code, Chapter 21; BOR 2.1.6; Previous policies: HOP 7.01 and 7.16

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[1] Pregnancy Discrimination. Pregnancy discrimination involves treating a woman unfavorably because of pregnancy, childbirth, or a medical condition related to pregnancy or childbirth.

[2] Complaints of full-time faculty, including professional librarians with academic titles, who are notified that they will not be reappointed, or that the subsequent academic year will be their terminal appointment, and who contend that such decisions were made for unlawfully discriminatory reasons will be referred to the Office of the Executive Vice President and Provost for handling pursuant to Rule 31008 of the Rules and Regulations of the Board of Regents of The University of Texas System. Complaints of members of the University of Texas Police Department are subject to procedures set forth in <https://police.utexas.edu/manual/b4.html>.

[3] See Section 13-204 of the Institutional Rules on Student Services and Activities (Appendix C to the *General Information Catalog*) for further information concerning harassment; and Sec. 11-701(b) for information concerning enhanced student penalties for offenses motivated by race, color, or national origin.

[4] The president or designee who is specifically designated by the president for this purpose may authorize an independent investigation into matters that fall under this policy. In these instances, the investigators may be asked to perform any task related to an investigation under this policy and, if so directed, may report directly to the president and/or the designee.

### VIII. Forms & Tools

#### Behavior Concerns Advice Line (BCAL)

(512) 232-5050

Allows members of the University community to discuss their concerns about an individual's behavior (available 24-hours a day)

<https://www.utexas.edu/safety/bcal/>

#### Campus Climate Response Team

<http://diversity.utexas.edu/ccrt/reporting/>

#### Counseling and Mental Health Center

(512) 471-3515

24-hour telephone counseling service at (512) 471-CALL (2255)

<http://cmhc.utexas.edu>

#### Deputy Title IX Coordinator for Faculty/Staff

Office for Inclusion and Equity

(512) 471-1849

<http://titleix.utexas.edu/>

#### Deputy Title IX Coordinator for Students

Associate Vice President for Student Affairs and Senior Associate Dean of Students

(512) 471-5017

<http://titleix.utexas.edu/>

#### Human Resources

(512) 471-4772

[hrsc@austin.utexas.edu](mailto:hrsc@austin.utexas.edu)

<http://hr.utexas.edu>

#### University Ombuds

For students and staff: (512) 471-3825

For Faculty: (512) 471-5866

<https://ombuds.utexas.edu/staff>

Provides a neutral, informal, and independent space for information about University resources and processes for students, staff, and faculty.

#### Office for Inclusion and Equity

(512) 471-1849

[equity@utexas.edu](mailto:equity@utexas.edu)

<http://equity.utexas.edu>

#### Student Emergency Services in the Office of the Dean of Students

(512) 471-5017

Provides referrals within the University and in the Austin area when necessary

<http://deanofstudents.utexas.edu/emergency>

#### University Compliance Services

English: 877-507-7321

Español: 800-216-1288

[compliance@austin.utexas.edu](mailto:compliance@austin.utexas.edu)

<https://utexas.edu/hotline>

#### University Health Services

Appointments: (512) 471- 4955

24-hour Nurse Advice Line: (512) 475-6877

Health Promotion Resource Center: (512) 475-8252

<http://healthyhorns.utexas.edu>

#### University of Texas Police Department

Emergencies: 911

Non-emergencies: (512) 471-4441, enter "9"

<https://police.utexas.edu>

#### University Title IX Coordinator

University Compliance Services

(512) 232-3992

[titleix@austin.utexas.edu](mailto:titleix@austin.utexas.edu)

<http://titleix.utexas.edu/>

## IX. Frequently Asked Questions

### None

## X. Related Information

### Students:

Institutional Rules on Student Services and Activities, [Appendix C, Chapter 11](#), (p. 117) (Student Discipline and Conduct)  
Institutional Rules on Student Services and Activities, [Appendix C, Chapter 13](#) (p. 131), (Speech, Expression, and Assembly)  
Institutional Rules on Student Services and Activities, [Appendix D](#) (p. 144), (Policy on Sex Discrimination, Sexual Harassment, Sexual Assault, Sexual Misconduct, Interpersonal Violence and Stalking)  
Institutional Rules on Student Services and Activities, [Appendix I](#) (p. 150), (Nondiscrimination Policy)  
Prohibition of Campus Violence, [HOP 8-1010](#)

### University Faculty and Staff:

Prohibition of Sexual Discrimination, Sexual Harassment, Sexual Assault, Sexual Misconduct, Interpersonal Violence, and Stalking ([HOP 3-3031](#))  
Policies and Procedures for Discipline and Dismissal of Employees ([HOP 5-2420](#))  
Hate and Bias Incidents Policy ([HOP 9-1810](#))

## XI. History

Last reviewed & revised: August 28, 2018

Previous review date: April 30, 2008

Editorial revisions made October 29, 2015

Policy Website: *Handbook of Operating Procedures*, 3-3020

# Appendix J: Prohibition of Campus Violence

The University of Texas at Austin is committed to creating and maintaining an environment that is free from threatening and violent behavior. Such behavior while on University owned or controlled property, or while engaged in official University business, will not be tolerated. The University encourages students, faculty, staff, visitors and contractors to promptly report any emergency or crime to University Police (UTPD). The University will respond promptly, positively, and aggressively to deal with threatening and violent behavior.

## I. General Policy Guidelines

### A. Scope

This policy applies to the conduct of any person on University premises or at University sponsored activities, including faculty, students, staff, visitors or contractors while on University owned or controlled property, or while engaged in official University business.

### B. Definitions

**Violent behavior** includes any behavior, whether intentional or reckless, which results in bodily injury to one's self, another person and/or damage to property.

**Threatening behavior** includes any behavior, whether intentional or reckless, that by its nature would be interpreted by a reasonable person as an intent to harm one's self, another person or damage property belonging to another. Threats may be oral, written, or communicated through conventional mail, electronic, fax, or telephonic means and may be direct or implied.

**Campus violence** encompasses threatening and violent behavior. Campus violence can include, but is not limited, to the following:

- Physically assaulting a person, including slapping, hitting, punching, pushing, poking or kicking; or physical threats to inflict physical harm;
- Arson, sabotage, equipment vandalism, damaging or destroying property, throwing or hitting objects;
- Displaying a weapon or an object which appears to be a weapon in a threatening manner; carrying a firearm of any kind onto University-owned or University-controlled property (except those permitted by state law or [University policy 8-1060, Campus Carry, of the Handbook of Operating Procedures](#)); or using a weapon to harm someone
- Using greater physical size/strength to intimidate another; intimidating or threatening gestures, bullying, or hazing
- Intimidating, threatening, hostile, or abusive language directed toward another person that communicates the intention to engage in violence against that person and leads a reasonable person to expect that violent behavior may occur
- Stalking another person

## C. Campus Violence Prohibited

Any person who engages in campus violence while on University owned or controlled property, or while engaged in official University business, may be removed and/or barred from the premises pending the outcome of an investigation.

## II. Procedures

### A. Reporting Immediate Emergencies or Crimes

Any individual who experiences, is aware of, or witnesses campus violence, or who has reason to suspect that campus violence is occurring that may be of a criminal nature or poses clear and present danger should immediately dial "911." The emergency dispatcher will direct the call to the University of Texas Police Department or the Austin Police Department as appropriate. In addition, the university department head where the incident occurred should be informed.

### B. Reporting Less Immediate Threats

Every supervisor, administrator and university official is responsible for responding promptly and thoroughly to allegations of campus violence and for reporting such behavior through normal lines of administrative responsibility. For assistance the incident may also be reported directly to the Behavior Concerns Advice Line (BCAL) at (512) 232-5050 or at the [website](#). The caller will be advised how to proceed and/or will be routed to the appropriate resource.

- Incidents involving staff members shall be directed to the Associate Vice President for Human Resources. The Associate Vice President for Human Resources will contact the appropriate officials and department personnel to address the potential campus violence.
- Incidents involving students shall be directed to the Office of the Dean of Students. The Office of the Dean of Students will contact the appropriate officials and department personnel to address the potential campus violence.
- Incidents involving faculty members should be directed to the Office of the Executive Vice President and Provost.

The Provost's Office will contact the appropriate officials and department personnel to address the potential campus violence.

**C. Protective or Restraining Orders**

Any member of the University community who takes out a protective or restraining order against another person, or receives a protective or restraining order which lists University owned or leased premises as a protected area, shall provide their supervisor and The University of Texas at Austin Police Department with a copy of such order along with a photograph of the person against whom the order has been issued when possible.

**D. Sanctions**

Individuals who violate this policy may be removed from campus, arrested and be subject to legal action. University employees and students who violate this policy may also be subject to disciplinary action up to and including dismissal.

**E. Filing of False Reports**

Any person who knowingly and intentionally files a false report shall be subject to disciplinary action that may include dismissal, expulsion, and/or legal action.

**F. Documentation and Confidentiality**

The University shall document the report and the investigation. Such documentation shall be retained by The University of Texas at Austin Police Department or the appropriate office listed in II.B. above. Subject to the provisions of the Texas Public Information Act, Chapter 552, Texas Government Code, the University will maintain the confidentiality of the report and the identity of the reporting person during the investigation. The identity of the reporter and perpetrator may become apparent, or disclosed, as a result of the actions taken to resolve the investigation.

**G. Retaliation Prohibited**

A faculty, student, or staff member who retaliates in any way against an individual who has brought a complaint in good faith pursuant to this policy or participated in good faith in an investigation of such a complaint, is subject to disciplinary action, including dismissal.

**For assistance:** Questions regarding campus violence should be directed to [Human Resource Services](#) or the [Office of the Dean of Students](#).

Policy Website: *Handbook of Operating Procedures*, 8-1010

## Appendix K: Student Travel Policy for University-Organized or Sponsored Events

**A. Policy Statement**

It is the policy of The University of Texas at Austin to promote safe travel by students to and from certain events and activities covered by this policy.

**B. Scope**

This policy applies to the travel of enrolled undergraduate or graduate students to attend activities or events that are organized and/or sponsored by The University of Texas at Austin and occur more than twenty-five (25) miles from the University campus or an event that has a duration of 24 hours or more.

The types of activities and events covered by this policy include course-related field trips, Recreational Sports club trips, the activities of sponsored student organizations, and meetings of

academic organizations where a student is officially representing the University.

The policy does not apply to travel undertaken by students to attend out of town athletic events, or to engage in student-teaching, internships, practicums, observations or research, unless the research is organized by a University employee.

**C. Definitions**

1. An **organized event** is one that is initiated, planned, and arranged by a member of the University's faculty or staff, or by the members of a sponsored student organization, and is approved by an appropriate administrator.
2. A **sponsored event** or activity is one that the University endorses by supporting it financially, or by sending students to participate in it as official representatives of the University.
3. An **enrolled student** is one who has been admitted to and is attending classes at the University.
4. An **appropriate administrator** is a dean, department chair, or director of an administrative unit, or their delegate.

**D. Travel Authorization**

In order to assure that the events or activities that involve student travel are within the course and scope of the University's mission, and that student safety issues have been addressed, travel undertaken pursuant to this policy must be authorized in advance by an appropriate administrator.

1. To request authorization, members of the faculty, staff or sponsored student organizations who organize activities covered by this policy must submit a completed Student Travel Request Authorization form, along with the required documents and information, to the appropriate administrator for approval. The request must be submitted at least five (5) business days in advance of travel to the activity or event.
2. The following information/documents must be submitted along with the Travel Authorization Request form:
  - a. A list of participants including their names and EID.
  - b. The name, phone number, and address of lodgings, if applicable.
  - c. The date and time of the arrival and departure from lodgings, if applicable.
  - d. The date and time of the departure and return to campus.
  - e. The name and phone number for the responsible University employee(s) who will be available to the students at all time during the travel and activity.
  - f. Copies of valid operators' licenses for any students who will operate vehicles.
  - g. A schedule for the trip that includes travel, planned activities, meals, and sleep period(s). Organizations utilizing personal vehicles for travel must allow for travelers to have at least 6 hours of sleep before driving.
3. When leading group trips, faculty or staff must collect and take a copy of the following documents and information with them while on the trip:
  - a. A list of the names, phone numbers, and the name and number of an emergency contact for each participant;
  - b. Copies of valid operators' licenses for any participants who will operate vehicles; and
  - c. Copies of current medical insurance certificates or a copy of both sides of an insurance group membership card for each person who wishes to participate in the activity or event. Purchase of a reasonably priced, short-term special events policy can be arranged by Student Activities on behalf of

students who do not have, or cannot verify, current medical coverage. Information concerning this coverage is available from Student Activities, (512) 471-3065.

- d. Completed and signed Release and Indemnification Agreements for each participant.
  - e. Completed and signed Authorization for Medical Treatment forms for each participant.
4. Faculty who teach courses that involve frequent field trips can collect the following information from students at the beginning of each semester and keep it on file with the appropriate administrator for use throughout a semester:
- Proof of current medical insurance
  - Completed and signed medical authorization forms
  - Completed and signed release and indemnification agreements (a single release and indemnification agreement may be used if a single description fits all the proposed trips)
  - Proof of a valid vehicle operator's license for students who will operate vehicles
5. One-time approval can be provided for multiple trips led by faculty or staff that involve the same locations and same participants.
6. The Travel Authorization Request, the Authorization for Medical Treatment, and the Release and Indemnification Agreement forms are available from the Office of the Vice President of Student Affairs or can be downloaded from the [Student Travel website](#).

#### E. Travel by Motor Vehicle

##### 1. Compliance with Laws and Policies

- a. Motor vehicles used for travel covered by this policy shall have a current proof of liability insurance card and a state inspection certification.
- b. Travel undertaken by means of fifteen passenger vans must comply with the requirements of The University of Texas System's Business Procedure Memorandum 16.5.2.

##### 2. Vehicle Operator Requirements

- a. All students who will operate vehicles while engaged in travel covered by this policy must have a valid operator's license and be trained as required by law to drive the vehicle that will be used.
- b. Operators shall comply with all laws, regulations and posted signs or directions regarding speed and traffic control.
- c. Operators shall take a mandatory 30-minute rest break every four hours.
- d. Operators shall drive no more than ten hours in any 24 hour period.
- e. Trips requiring more than 10 hours driving time to reach a point of destination shall require overnight lodging.
- f. A navigator shall be assigned for all trips scheduled to take more than two hours. The navigator must stay awake while on duty.

##### 3. Safety Requirements for Both Operators and Passengers

- a. **Seat Belts.** Occupants of motor vehicles shall use seat belts or other approved safety restraint devices required by law or regulation at all times when the vehicle is in operation.
- b. **Alcohol and Illegal Substances.** Occupants of motor vehicles shall not possess, consume, or transport any alcoholic beverages or illegal substances.
- c. **Passenger Capacity.** The total number of passengers in any vehicle at any time it is in operation shall not exceed the manufacturer's recommended capacity, or the number

specified by University policy, or federal or state law or regulations, whichever is lowest.

#### 4. Travel by Rental Vehicle

Rentals of vehicles to use for travel to activities or events covered by this policy are governed by the following guidelines:

##### a. Vehicle Reservations

The University is a participant in the State Travel Management Program, which has negotiated favorable vehicle rental rates with a number of car rental companies. While use of one of the University's travel agencies is not required, doing so will help assure that: 1) vehicles are rented pursuant to the State Travel Management plan whenever possible; 2) that vehicle rental agreements are valid; and 3) that necessary insurance coverage has been purchased. Information concerning those agencies is available from the University [Travel Management Services](#) website.

##### b. Payment of Costs for Rental Vehicles

Vehicle rental charges can be a) billed centrally to University Travel Management Services; or b) billed directly to those Departments or Divisions that have uniquely numbered accounts with state contract car rental companies. If the rental costs are to be centrally billed, it will be necessary for the driver to obtain a voucher from the University's Travel Management Services prior to picking up the rental vehicle.

If necessary, personal credit cards may be used to rent vehicles for travel covered by this policy, and cardholders will be reimbursed for appropriate and approved costs. If rentals are from companies that are not under the state contract, the reimbursement amount will be limited to that which would have been incurred for equivalent state contract rentals.

#### F. Insurance Coverage

##### 1. Rentals from companies participating in the State Travel Management Program.

Loss/Damage Waiver and Primary Liability insurance coverage are automatically included in the rates charged by companies participating in the State Travel Management Program. That protection does not cover injuries to persons or possessions inside a rental vehicle. Therefore, it is suggested that the personal injury insurance protection and the personal effects insurance protection offered by rental companies be purchased for student travel covered by this policy, particularly if there will be numerous passengers in the vehicle. The cost of the extended coverage is reimbursable only from funds held in 18, 19, 26, 29, and 30 accounts.

##### 2. Rentals from non-state contract rental companies.

If no state contract cars are available and it is necessary to rent vehicles from non-contract companies, then both the Loss/Damage Waiver and Primary Liability Coverage must be purchased unless the rental is charged to a University issued Diner's Club card. It is suggested that the personal injury insurance protection and the personal effects insurance protection offered by rental companies be purchased for student travel covered by this policy, particularly if there will be numerous passengers in the vehicle. The cost of the extended coverage is reimbursable only from funds held in 18, 19, 26, 29 and 30 accounts.

##### 3. Travel by Means of a Vehicle Owned or Leased Long-Term by the University

In addition to complying with the general rules set out above, travel by means of a vehicle that is owned or leased long-term (for a period of more than one year) by the University must comply with the following requirements:

a. **Proof of Insurance, Inspection, and Safety Devices**

Vehicles used for travel activity covered by this policy must:

1. Have a current proof of liability insurance card;
2. Have a valid state inspection sticker;
3. Have all devices or equipment required by federal or state law or regulations and any applicable UT System policy; and
4. Comply with any other applicable federal or state law or regulation and any applicable UT System policy.

b. **Service and Maintenance**

A University-owned or long-term leased vehicle used for student travel under this policy must be subject to scheduled periodic service and maintenance by qualified persons and comply with all applicable requirements of any UT System policy.

c. **Employee Operators**

All operators of vehicles described in this section shall be on the payroll of The University of Texas at Austin. All operators must have a valid license for the operation of a particular vehicle; must be authorized to operate the vehicle in accordance with UT System policy; and have a current BMDRIV rating on file. Human Resources or the Controller's Office can be contacted for information on how employees may obtain a rating.

4. **Travel by Privately Owned Vehicles**

The use of personal vehicles by students for travel to events covered by this policy is strongly discouraged.

- a. When requesting authorization for travel that involves the use of personally owned vehicles, the requestor, in addition to submitting the information described in Part D.2., shall also submit a copy of a current liability insurance certificate for any vehicle to be used for the proposed travel.
- b. The persons responsible for the proposed activity and travel shall inform students who will drive their privately owned vehicles that their personal liability insurance policy will be looked to first to cover any liability that may result from the use of the vehicle for the proposed travel.

5. **Volunteer Drivers and Passengers**

Non-student/non-employee drivers and passengers who accompany students on travel covered by this policy must sign the Release and Indemnification and the Authorization for Medical Treatment forms prior to the trip. Forms can be downloaded at the [Student Travel website](#).

**For assistance:** Questions regarding this policy should be directed to the Office of the Vice President for Student Affairs.

Source: Texas Education Agency Code 51.494; UT System Regental Student Travel Policy

Previously HOP 12.B.2

Policy Website: *Handbook of Operating Procedures*, 9-1420

## Appendix L: Student Travel Policy for Registered Student Organizations

A. **Policy Statement**

It is the policy of The University of Texas at Austin to promote safe travel by members of its registered student organizations to certain events and activities.

B. **Scope**

This policy applies to the travel of student members of a registered student organization when the registered student organization requires or coordinates an activity or event for its student members and the activity or event occurs more than twenty-five miles from the campus of the University, or when members attend an activity or event that involves any overnight stay.

C. **Trip Approval Requirements**

1. Registered student organizations that organize events or activities covered by this policy must obtain prior authorization from the Office of the Dean of Students, Student Activities.
2. To obtain authorization to travel, the registered student organization must apply through a process prescribed by the dean of students. The request must be submitted at least five business days prior to the proposed trip, along with the following information:
  - a. A list of the names and EIDs for each participant;
  - b. The name, phone number, and address of lodgings, if applicable;
  - c. The date and time of the arrival and departure from lodgings, if applicable;
  - d. The date and time of the departure and return to campus;
  - e. A list of valid operators' driver license names and numbers for any participants who will operate vehicles;
  - f. A list of valid liability insurance policy numbers and insurance carriers that will cover any participants who will operate the vehicles and cover the vehicles operated; and
  - g. A schedule for the trip that includes travel, planned activities, meals, and sleep period(s). Organization utilizing personal vehicles for travel must allow for travelers to have at least 6 hours of sleep before driving.
3. The registered student organization must collect and take a copy of the following documents and information with them while on the trip:
  - a. A list of the names, phone numbers, and the name and number of an emergency contact for each participant;
  - b. A list of valid operators' license names and numbers for any participants who will operate vehicles; and
  - c. Copies of current medical insurance certificates or a copy of both sides of an insurance group membership card for each person who wishes to participate in the activity or event. Purchase of a reasonably priced, short-term medical insurance policy can be arranged by Student Activities on behalf of students who do not have, or cannot verify, current medical coverage. Information concerning this coverage is available from Student Activities, (512) 471-3065.

D. **Travel by Motor Vehicle**

1. **Compliance with State Law**

Motor vehicles used for travel covered by this policy shall have a current proof of liability insurance card and a current state registration.

## 2. Vehicle Operator Requirements

- a. All students who will operate vehicles while engaged in travel covered by this policy must have a valid operator's license, valid insurance, and be trained as required by law to drive the vehicle that will be used.
- b. Operators of motor vehicles shall comply with all laws, regulations, and posted signs or directions regarding speed and traffic control.
- c. Operators shall drive no more than four hours without a minimum rest stop of thirty minutes.
- d. Operators shall drive no more than ten hours in any twenty-four-hour period.
- e. Members must assign a navigator for trips if more than one member is traveling. The navigator shall remain awake while on duty. The navigator's responsibility is to assist with way finding and route planning.
- f. Trips requiring more than ten hours of driving time shall include overnight lodging.

## 3. Safety Requirements for Both Operators and Passengers

- a. **Seat Belts.** Occupants of motor vehicles shall use seat belts or other approved safety restraint devices required by law or regulation at all times when the vehicle is in operation.
- b. **Alcohol and Illegal Substances.** Occupants of motor vehicles shall not possess, consume, or transport any alcoholic beverages or illegal substances.
- c. **Passenger Capacity.** The total number of passengers in any vehicle at any time it is in operation shall not exceed the manufacturer's recommended capacity, or the number specified by University policy, [UT System Policy 157](#), or federal or state law or regulations, whichever is lowest.

### E. Non-Compliance

This applies to any organization that falls within the scope of this policy. Failure or refusal to comply with this policy may result in the Dean of Students initiating disciplinary proceedings under subchapter 6-500 and/or subchapter 11-500 of the *Institutional Rules*.

**For assistance:** Questions regarding this policy should be directed to the Office of the Dean of Students, Student Activities.

Policy Website: *Handbook of Operating Procedures*, 9-1410

# Appendix M: Use of E-mail for Official Correspondence to Students

## A. Policy Statement

Electronic mail (e-mail), like postal mail, is a mechanism for official University communication to students. The University will exercise the right to send e-mail communications to all students, and the University will expect that e-mail communications will be received and read in a timely manner.

## B. Scope

This policy applies to all admitted and enrolled students of The University of Texas at Austin. Official communications using e-mail can include e-mail to a group, such as all admitted students, or an e-mail message to only one student.

## C. E-mail Addresses

Every student must provide the University with their official e-mail address using the online update form in [UT Direct](#). The student's

official e-mail address is the destination to which the University will send official e-mail communications.

It is the responsibility of every student to keep the University informed of changes in their [official e-mail address](#). Consequently, e-mail returned to the University with "User Unknown" is not an acceptable excuse for missed communication.

All admitted and enrolled students may [create or manage an e-mail address](#) at no additional cost as provided by Information Technology Services (ITS). Information on obtaining an e-mail address is given at the ITS [website](#). ITS is responsible for providing centrally managed email services and addresses that assist the University in sending official communications.

The University cannot be responsible for the handling of e-mail by outside vendors (e.g., @aol.com, @hotmail.com) or by University departmental servers. A student may provide an official e-mail address resident on, or that forwards to, such a server at their own risk.

## D. Expectations Regarding Frequency of Reading E-mail

Students are expected to check e-mail on a frequent and regular basis in order to stay current with University-related communications, recognizing that certain communications may be time-critical. It is recommended that e-mail be checked daily, but at a minimum, twice per week. Regular e-mail management will also minimize the risk that the inbox will be full, causing the e-mail to be returned to the sender with an error. Undeliverable messages returned because of either a full inbox or use of a spam filter will be considered delivered without further action required of the University.

## E. Privacy and Confidentiality

Official University communications sent by e-mail are subject to the same public information, privacy, and records retention requirements and policies as other official University communications.

## F. Instructional Uses of E-mail

Faculty members retain autonomy in determining how e-mail or other forms of electronic communication will be used in their classes, but they must specify the requirements in the course syllabus. Faculty may expect that students are checking e-mail regularly, and faculty members may use e-mail for their courses accordingly.

## G. Authoritative Source

The authoritative source on this policy and responsibility for its implementation rest with the Chief Information Officer.

## H. For Assistance

Contact the [Service Desk](#) for technical support at (512) 475-9400 or send e-mail to the [help@utexas.edu](mailto:help@utexas.edu).

# Appendix N: Student Travel Policy for International Locations

## A. Policy Statement

It is the policy of The University of Texas at Austin to promote safe international travel for students participating in activities and/or events covered under this policy. Under this policy, the University reserves the right to cancel any international activity and/or require UT students to depart their international location due to health, safety and/or other concerns, to include academic and disciplinary misconduct. Current travel policy and Restricted Region travel information can be found on the [Texas Global website](#).

## B. Scope

This policy applies to the travel of enrolled undergraduate, graduate, or professional students attending activities and/or events (whether required or optional) that occur in an international location (including U.S. protectorates and insular areas). This policy applies to UT-affiliated student travel with or without university funding. The types of activities and events covered by this policy include:

- trips organized and/or sponsored by The University of Texas at Austin that are part of or contribute to an academic course or degree program, including internships, practicums, and research;
- academic-related international service learning, internships, practicums, research, and volunteer opportunities organized and/or sponsored by The University of Texas at Austin;
- travel by members of a registered student organization regardless of whether or not the organization requires its student members to attend the activity or event;
- other trips organized and/or sponsored by The University of Texas at Austin, including the activities of sponsored student organizations;
- travel to meetings of academic-related, professional associations including conferences; and
- official education abroad programs.

#### C. Definitions

1. An **organized event** is one that is initiated, planned, and arranged by a member of the University's faculty or staff, or by the members of a sponsored student organization, and is approved by an appropriate administrator.
2. A **sponsored event** or activity is one that the University endorses by supporting it financially, or by sending students to participate in it as official representatives of the University.
3. An **enrolled student** is one who has been admitted to and is attending classes at the University.
4. An **appropriate administrator** is a dean, department chair, or director of an administrative unit, or their delegate.

#### D. Travel Authorization

In order to assure that events or activities which involve student international travel are within the course and scope of the University's mission, and that student safety issues have been addressed, international travel undertaken pursuant to this policy must be authorized in advance by an appropriate administrator. There are two methods to obtain travel authorization:

1. Acceptance into an officially recognized exchange, affiliate or faculty led program.
2. Receive individual or group travel authorization through the Student Travel Policy for International Locations (STPIL). Complete the steps to obtain travel authorization as outlined by the on the Texas Global website. STPIL documents require the approval signature as outlined below. Once approved, the individual, organization or group may begin travel.
3. Obtain approval to travel to a Restricted Region. Participants must comply with the requirements set forth by the International Oversight Committee (IOC). Current policy and procedure can be found on the Texas Global [Restricted Regions website](#).

Participant Category	Signature Required
Individual Student	Department Chair (and dean for Restricted Region)
Group Travel with Accompanying Faculty	Department Chair (and dean for Restricted Region)
Registered Student Organization	Student Activities, Office of the Dean of Students (and dean for Restricted Region)
Sponsored Student Organization	Sponsoring Department (and dean for Restricted Region)

#### E. Non-Compliance

This applies to any individual, organization or group travel that falls within the scope of this policy. Failure or refusal to comply with this policy may result in the Dean of Students initiating disciplinary proceedings under subchapter 6-500 and/or subchapter 11-500 of the *Institutional Rules*.

If a faculty or staff member administratively responsible for the program fails or refuses to comply with policy directives, Texas Global will inform the appropriate chair and dean. Sanctions could result in the withholding of reimbursement for travel expenses.

If the student fails to obtain Restricted Regional approval for travel from the IOC they will not be reimbursed for costs from the sponsoring college/school department or unit.

If the University incurs expenses on behalf of the student, faculty/staff, organization, or program, the individual or corresponding college/school, department or unit will be held financially responsible.

## Statistical Summaries

### Degrees conferred, 1884-2020 <sup>1</sup>

	Conferred in 2019-2020 <sup>2</sup>			Total Conferred, 1884-2020		
	Men	Women	Both	Men	Women	Both
<b>Graduate School<sup>3</sup></b>						
Doctor of Audiology	1	9	10	12	93	105
Doctor of Education	3	7	10	334	200	534
Doctor of Musical Arts	18	14	32	771	495	1,206
Doctor of Nursing Practice	0	19	19	3	57	60
Doctor of Pharmacy <sup>4</sup>	0	0	0	176	255	431
Doctor of Philosophy	433	319	752	24,181	12,693	36,874

Master in Professional Accounting	122	147	269	4,710	4,471	9,181
Master of Advanced Architectural Design	1	0	1	1	0	1
Master of Architecture	26	29	55	1,211	755	1,966
Master of Arts	126	238	364	16,308	17,526	33,834
Master of Business Administration	392	186	578	18,854	5,771	24,625
Master of Education	55	127	182	3,060	7,292	10,352
Master of Fine Arts (or Master of Fine Arts in Drama)	34	31	65	1,086	1,230	2,316
Master of Journalism	0	0	0	89	45	134
Master of Global Policy Studies	19	32	51	188	259	447
Master of Interior Design	0	5	5	7	22	29
Master of Landscape Architecture	1	10	11	50	126	176
Master of Library and Information Science	0	0	0	1,018	3,183	4,201
Master of Music	25	20	45	1,492	1,629	3,121
Master of Public Affairs	47	72	119	1,853	2,295	4,148
Master of Science	0	0	0	22	14	36
Master of Science in Accounting	3	2	5	11	7	18
Master of Science in Aerospace Engineering (or Aeronautical Engineering)	0	0	0	182	3	185
Master of Science in Applied Physics	0	0	0	17	4	21
Master of Science in Architectural Engineering	0	0	0	99	2	101
Master of Science in Architectural Studies	0	0	0	37	62	99
Master of Science in Architecture	0	0	0	14	2	16
Master of Science in Business Analytics	62	47	109	183	153	336
Master of Science in Ceramic Engineering	0	0	0	9	0	9
Master of Science in Chemical Engineering	0	0	0	493	3	496
Master of Science in Civil Engineering	0	0	0	432	2	434
Master of Science in Communication Engineering	0	0	0	3	0	3
Master of Science in Community and Regional Planning	12	13	25	654	648	1,302
Master of Science in Computational and Applied Mathematics	0	0	0	89	25	114
Master of Science in Computational Science, Engineering, and Mathematics	9	0	9	87	22	109
Master of Science in Computer Science	50	25	75	1,202	297	1,499
Master of Science in Economics	1	1	2	385	186	571
Master of Science in Electrical Engineering	0	0	0	625	4	629
Master of Science in Energy and Earth Resources	5	10	15	64	52	116
Master of Science in Engineering	299	106	405	14,067	2,932	16,999
Master of Science in Engineering Mechanics	0	0	0	74	0	74
Master of Science in Environmental Health Engineering (or Sanitary Engineering)	0	0	0	191	3	194
Master of Science in Finance	41	29	70	331	134	465
Master of Science in Geological Sciences	5	4	9	381	256	637
Master of Science in Health Behavior and Health Education	0	2	2	5	8	13
Master of Science in Health Care Transformation	17	16	33	17	16	33
Master of Science in Health Education	0	0	0	1	7	8
Master of Science in Historic Preservation	1	3	4	18	85	103
Master of Science in Home Economics	0	0	0	3	167	170
Master of Science in Identity Management and Security	7	3	10	19	12	31
Master of Science in Information, Risk, and Operations Management	1	2	3	87	61	148
Master of Science in Information Studies	37	77	114	421	1,355	1,776
Master of Science in Information Technology Management	23	15	38	40	29	69
Master of Science in Kinesiology	7	7	14	81	57	138
Master of Science in Management	1	0	1	18	11	29
Master of Science in Marine Science	1	2	3	28	52	80
Master of Science in Marketing	10	31	41	44	91	135

Master of Science in Mechanical Engineering	0	0	0	459	0	459
Master of Science in Medicine	0	0	0	2	0	2
Master of Science in Neuroscience	0	0	0	5	5	10
Master of Science in Nursing	14	68	82	250	2,179	2,429
Master of Science in Nutritional Sciences	5	13	18	5	26	31
Master of Science in Operations Research and Industrial Engineering (or Industrial Engineering)	0	0	0	50	4	54
Master of Science in Petroleum Engineering	0	0	0	299	1	300
Master of Science in Pharmaceutical Sciences	1	8	9	11	29	40
Master of Science in Pharmacy	0	0	0	232	189	421
Master of Science in Social Work	20	131	151	1,083	5,798	6,881
Master of Science in Statistics	7	5	12	74	78	152
Master of Science in Sustainable Design	0	2	2	26	42	68
Master of Science in Technology Commercialization (or Science and Technology Commercialization)	52	18	70	885	234	1,119
Master of Science in Textile and Apparel Technology	0	0	0	6	14	20
Master of Science in Urban Design	4	6	10	22	42	64
<b>Total</b>	<b>1,997</b>	<b>1,909</b>	<b>3,906</b>	<b>99,187</b>	<b>73,800</b>	<b>172,987</b>

#### **School of Architecture<sup>5</sup>**

Bachelor of Architecture	20	24	44	3,247	849	4,096
Bachelor of Architecture in Regional and City Planning	0	0	0	11	1	12
Bachelor of Interior Architecture	0	0	0	3	8	11
Bachelor of Science in Architectural Studies	0	5	5	168	195	363
Bachelor of Science in Architecture	0	0	0	75	15	90
Bachelor of Science in Interior Design <sup>6</sup>	1	18	19	13	210	223
<b>Total</b>	<b>21</b>	<b>47</b>	<b>68</b>	<b>3,517</b>	<b>1,278</b>	<b>4,795</b>

#### **College of Arts and Sciences<sup>7</sup>**

Bachelor of Arts	0	0	0	20,744	19,664	40,408
Bachelor of Literature	0	0	0	89	101	190
Bachelor of Science	0	0	0	178	67	245
Bachelor of Science in Architectural Studies	0	0	0	88	9	97
Bachelor of Science in Chemistry	0	0	0	683	173	856
Bachelor of Science in Geology	0	0	0	1,528	33	1,561
Bachelor of Science in Home Economics	0	0	0	65	3,309	3,374
Bachelor of Science in Medical Technology	0	0	0	11	146	157
Bachelor of Science in Medicine	0	0	0	190	5	195
Bachelor of Science in Naval Science and Tactics	0	0	0	60	0	60
Bachelor of Science in Nursing	0	0	0	0	11	11
Bachelor of Science in Physics	0	0	0	788	18	806
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>24,424</b>	<b>23,536</b>	<b>47,960</b>

#### **Red McCombs School of Business**

Bachelor of Business Administration	669	599	1,268	57,168	29,903	87,071
Bachelor of Science in Naval Science and Tactics	0	0	0	26	0	26
<b>Total</b>	<b>669</b>	<b>599</b>	<b>1,268</b>	<b>57,194</b>	<b>29,903</b>	<b>87,097</b>

#### **Moody College of Communication**

Bachelor of Journalism <sup>8</sup>	36	133	169	4,497	8,490	12,987
Bachelor of Science in Advertising	97	245	342	3,403	6,766	10,169
Bachelor of Science in Communication and Leadership	23	27	50	27	38	65
Bachelor of Science in Communication Sciences and Disorders	9	88	97	143	2,562	2,705
Bachelor of Science in Communication Studies (or Speech)	78	191	269	2,514	7,111	9,625
Bachelor of Science in Public Relations	33	139	172	458	2,603	3,061

Bachelor of Science in Radio-Television-Film	161	169	330	7,158	4,925	12,083
Total	437	992	1,429	18,200	32,495	50,695

### College of Education

Bachelor of Science in Applied Learning and Development	27	202	229	1,066	7,819	8,885
Bachelor of Science in Athletic Training	5	16	21	56	101	157
Bachelor of Science in Education	0	0	0	2,086	8,473	10,559
Bachelor of Science in Elementary Education	0	0	0	194	8,246	8,440
Bachelor of Science in Kinesiology <sup>9</sup>	0	0	0	2,481	2,461	4,942
Bachelor of Science in Kinesiology and Health	141	134	275	1,180	1,273	2,453
Bachelor of Science in Nursing Education	0	0	0	0	33	33
Total	173	352	525	7,063	28,406	35,469

### Cockrell School of Engineering

Bachelor of Engineering Science	0	0	0	450	47	497
Bachelor of Science in Aerospace Engineering (or Aeronautical Engineering)	128	39	167	3,745	443	4,188
Bachelor of Science in Architectural Engineering	25	18	43	2,377	555	2,932
Bachelor of Science in Biomedical Engineering	69	63	132	801	548	1,349
Bachelor of Science in Ceramic Engineering	0	0	0	112	0	112
Bachelor of Science in Chemical Engineering	113	67	180	5,813	1,687	7,500
Bachelor of Science in Civil Engineering	97	43	140	5,629	1,115	6,744
Bachelor of Science in Computational Engineering	21	2	23	36	4	40
Bachelor of Science in Electrical Engineering	292	69	361	13,295	1,437	14,732
Bachelor of Science in Electrical and Utility Engineering	0	0	0	4	0	4
Bachelor of Science in Environmental Engineering	2	13	15	2	13	15
Bachelor of Science in Geosystems Engineering and Hydrogeology <sup>10</sup>	2	2	4	80	39	119
Bachelor of Science in Mechanical Engineering	222	74	296	10,903	1,261	12,164
Bachelor of Science in Mechanical and Industrial Engineering	0	0	0	4	0	4
Bachelor of Science in Meteorology	0	0	0	40	2	42
Bachelor of Science in Naval Science and Tactics	0	0	0	48	0	48
Bachelor of Science in Petroleum Engineering (or Petroleum Production Engineering)	50	20	70	4,382	515	4,897
Civil Engineer	0	0	0	172	0	172
Civil Engineer (five-year course)	0	0	0	9	0	9
Electrical Engineer	0	0	0	119	0	119
Electrical Engineer (five-year course)	0	0	0	11	0	11
Engineer of Mines	0	0	0	16	0	16
Total	1,021	410	1,431	48,048	7,666	55,714

### College of Fine Arts

Bachelor of Arts	3	12	15	3	13	16
Bachelor of Arts in Art <sup>11,33</sup>	4	31	35	875	2,535	3,410
Bachelor of Arts in Dance <sup>12</sup>	0	0	0	23	123	146
Bachelor of Arts in Drama <sup>13</sup>	0	0	0	181	310	491
Bachelor of Arts in Music <sup>14</sup>	1	10	11	333	384	717
Bachelor of Arts in Theatre and Dance	12	29	41	354	910	1,264
Bachelor of Fine Arts	31	106	137	2,966	5,852	8,818
Bachelor of Music	25	19	44	1,484	1,960	3,444
Bachelor of Science in Arts and Entertainment Technologies	37	22	59	60	37	97
Total	113	229	342	6,279	12,124	18,403

### Division of General and Comparative Studies<sup>15</sup>

Bachelor of Arts	0	0	0	686	612	1,298
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Bachelor of Science in Architectural Studies	0	0	0	49	8	57
Total	0	0	0	735	620	1,355

#### John A. and Katherine G. Jackson School of Geosciences

Bachelor of Arts in Geological Sciences <sup>16</sup>	1	1	2	42	36	78
Bachelor of Science in Environmental Science <sup>32</sup>	2	4	6	24	36	60
Bachelor of Science in Geological Sciences <sup>16</sup>	22	10	32	410	274	684
Total	25	15	40	476	346	822

#### College of Humanities<sup>17</sup>

Bachelor of Arts	0	0	0	1,312	2,186	3,498
Total	0	0	0	1,312	2,186	3,498

#### School of Law

Doctor of Jurisprudence <sup>18</sup>	170	152	322	24,908	8,824	33,732
Master of Comparative Jurisprudence	0	0	0	107	26	133
Master of Laws	19	16	35	548	448	996
Total	189	168	357	25,563	9,298	34,861

#### College of Liberal Arts<sup>19</sup>

Bachelor of Arts	1,191	1,533	2,724	45,392	50,906	96,298
Bachelor of Science in Architectural Studies <sup>20</sup>	0	0	0	44	29	73
Bachelor of Science in Environmental Science <sup>32</sup>	4	4	8	17	32	49
Bachelor of Science in Psychology	35	115	150	497	1,211	1,708
Total	1,230	1,652	2,882	45,950	52,178	98,128

#### Dell Medical School

Doctor of Medicine	26	23	49	26	23	49
Total	26	23	49	26	23	49

#### College of Natural Sciences<sup>21</sup>

Bachelor of Arts <sup>22</sup>	7	7	14	11,371	8,306	19,677
Bachelor of Science and Arts	488	803	1,291	2,466	3,640	6,106
Bachelor of Science in Astronomy	16	7	23	143	61	204
Bachelor of Science in Biochemistry	31	33	64	1,290	943	2,233
Bachelor of Science in Biology	67	105	172	3,331	3,999	7,330
Bachelor of Science in Botany	0	0	0	8	11	19
Bachelor of Science in Chemistry	35	22	57	1,356	760	2,116
Bachelor of Science in Clinical Laboratory Science <sup>23</sup>	0	0	0	32	90	122
Bachelor of Science in Computer Science	311	74	385	1,648	329	1,977
Bachelor of Science in Computer Sciences	0	0	0	3,388	559	3,947
Bachelor of Science in Environmental Science <sup>32</sup>	6	9	15	33	62	95
Bachelor of Science in Geological Sciences <sup>24</sup>	0	0	0	1,106	422	1,528
Bachelor of Science in Home Economics	0	0	0	108	3,475	3,583
Bachelor of Science in Human Development and Family Sciences (or Child Development and Family Relationships) <sup>25</sup>	1	44	45	140	2,066	2,206
Bachelor of Science in Interdisciplinary Science	0	0	0	1	2	3
Bachelor of Science in Interior Design <sup>25, 26</sup>	0	0	0	31	296	327
Bachelor of Science in Mathematics	160	59	219	2,813	1,396	4,209
Bachelor of Science in Medical Laboratory Science	6	12	18	19	52	71
Bachelor of Science in Medical Technology <sup>27</sup>	0	0	0	78	330	408
Bachelor of Science in Microbiology	0	0	0	170	216	386
Bachelor of Science in Neuroscience	20	28	48	77	87	164
Bachelor of Science in Nutrition <sup>28</sup>	7	71	78	329	1,978	2,307
Bachelor of Science in Physics	63	14	77	1,522	246	1,768
Bachelor of Science in Public Health	21	95	116	163	490	653
Bachelor of Science in Textiles and Apparel <sup>28</sup>	5	48	53	77	1,415	1,492

Bachelor of Science in Zoology	0	0	0	493	377	870
<b>Total</b>	<b>1,244</b>	<b>1,431</b>	<b>2,675</b>	<b>32,193</b>	<b>31,608</b>	<b>63,801</b>
<b>School of Nursing<sup>29</sup></b>						
Bachelor of Science in Nursing	10	124	134	534	5,520	6,054
<b>Total</b>	<b>10</b>	<b>124</b>	<b>134</b>	<b>534</b>	<b>5,520</b>	<b>6,054</b>
<b>College of Pharmacy</b>						
Bachelor of Science in Pharmacy	0	0	0	5,098	2,521	7,619
Doctor of Pharmacy <sup>30</sup>	36	81	117	806	1,764	2,570
Graduate in Pharmacy	0	0	0	558	71	629
<b>Total</b>	<b>36</b>	<b>81</b>	<b>117</b>	<b>6,462</b>	<b>4,356</b>	<b>10,818</b>
<b>College of Social and Behavioral Sciences<sup>31</sup></b>						
Bachelor of Arts	0	0	0	5,367	4,226	9,593
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,367</b>	<b>4,226</b>	<b>9,593</b>
<b>Steve Hicks School of Social Work</b>						
Bachelor of Social Work	12	64	76	360	2,486	2,846
<b>Total</b>	<b>12</b>	<b>64</b>	<b>76</b>	<b>360</b>	<b>2,486</b>	<b>2,846</b>
<b>Total number of degrees conferred in all colleges and schools</b>	<b>7,203</b>	<b>8,096</b>	<b>15,299</b>	<b>382,890</b>	<b>322,055</b>	<b>704,945</b>

<sup>1</sup> Figures are given by academic year for the years complete at the time of publication. The number of degrees conferred is accurate as of the date of publication. Changes to the data, if any, will be reflected in the "Total Conferred" columns of the next General Information.

<sup>2</sup> Beginning for the long session 2009-2010, information about degrees conferred is provided by the Institutional Reporting, Research, and Information Systems.

<sup>3</sup> Through the session 1905–1906, the master's degree was given in the Department of Literature, Science, and Arts; then through the session 1909–1910, in the College of Arts. Prior to the 1923–1924 session, the master's degree in engineering, with designation of the branch in which given, was awarded in the College of Engineering. Branch designations were discontinued in 1978.

<sup>4</sup> Prior to 1998–1999, the Doctor of Pharmacy was conferred in the Graduate School. In 1998–1999, the degree was awarded in both the Graduate School and the College of Pharmacy; thereafter it was awarded in the College of Pharmacy.

<sup>5</sup> Prior to the long session 1951–1952, the School of Architecture was a part of the College of Engineering.

<sup>6</sup> Prior to 2000–2001, the Bachelor of Science in Interior Design was conferred in the College of Natural Sciences. In 2000–2001, the degree was awarded in both the College of Natural Sciences and the School of Architecture.

<sup>7</sup> After the long session 1970–1971, degrees previously conferred by the College of Arts and Sciences were awarded in the Colleges of Humanities, Natural Sciences, and Social and Behavioral Sciences and the Division of General and Comparative Studies. Beginning with the spring semester 1979, the degrees for the Colleges of Humanities and Social and Behavioral Sciences and the Division of General and Comparative Studies have been awarded in the College of Liberal Arts.

<sup>8</sup> Prior to the long session 1965–1966, the Bachelor of Journalism degree was conferred in the College of Arts and Sciences. Total numbers of Bachelor of Journalism degrees conferred up to that time were: men, 911; women, 850; both, 1,761. These totals are now listed in the College of Communication and are not included in the totals for the College of Arts and Sciences.

<sup>9</sup> Prior to 1990–1991, the Bachelor of Science in Kinesiology was designated the Bachelor of Science in Physical Education.

<sup>10</sup> The Bachelor of Science in Geosystems Engineering and Hydrogeology is offered jointly by the Cockrell School of Engineering and the Jackson School of Geosciences.

<sup>11</sup> Prior to February 1969, the Bachelor of Arts in Art was designated Bachelor of Science in Art.

<sup>12</sup> In spring 1997, the Bachelor of Arts in Drama and the Bachelor of Arts in Dance were replaced by the Bachelor of Arts in Theatre and Dance.

<sup>13</sup> Prior to February 1969, the Bachelor of Arts in Drama was designated Bachelor of Science in Drama. In spring 1997, the Bachelor of Arts in Drama and the Bachelor of Arts in Dance were replaced by the Bachelor of Arts in Theatre and Dance.

<sup>14</sup> Prior to February 1969, the Bachelor of Arts in Music was designated Bachelor of Science in Music.

<sup>15</sup> Beginning in summer 1971, the degrees formerly conferred in the College of Arts and Sciences were conferred instead in the College of Humanities, the College of Natural Sciences, the College of Social and Behavioral Sciences, and the Division of General and Comparative Studies. In spring 1979,

degrees in the College of Humanities, the College of Social and Behavioral Sciences, and the Division of General and Comparative Studies were moved to the College of Liberal Arts.

16. The Bachelor of Arts with a major in geological sciences and the Bachelor of Science in Geological Sciences were conferred in the College of Natural Sciences through summer 2006; in fall 2006, they were conferred in both the College of Natural Sciences and the Jackson School of Geosciences; since spring 2007, they have been conferred only in the Jackson School.
17. Beginning in summer 1971, the degrees formerly conferred in the College of Arts and Sciences were conferred instead in the College of Humanities, the College of Natural Sciences, the College of Social and Behavioral Sciences, and the Division of General and Comparative Studies. In spring 1979, degrees in the College of Humanities, the College of Social and Behavioral Sciences, and the Division of General and Comparative Studies were moved to the College of Liberal Arts.
18. Prior to April 1969, this degree was designated Bachelor of Laws.
19. Prior to the summer session 1971, degrees in the Colleges of Humanities and Social and Behavioral Sciences and the Division of General and Comparative Studies were conferred in the College of Arts and Sciences. Beginning with the spring semester 1979, these degrees have been awarded in the College of Liberal Arts.
20. Prior to 1987–1988, the Bachelor of Science in Architectural Studies was conferred in the College of Liberal Arts. In 1987–1988, the degree was conferred in both the School of Architecture and the College of Liberal Arts. Since 1988–1989, the degree has been awarded in the School of Architecture.
21. Prior to summer session 1971, degrees now in the College of Natural Sciences were conferred in the College of Arts and Sciences.
22. The Bachelor of Arts with a major in geological sciences was conferred in the College of Natural Sciences through summer 2006; in fall 2006, it was conferred in both the College of Natural Sciences and the Jackson School of Geosciences; since spring 2007, it has been conferred only in the Jackson School.
23. In fall 2000, the Bachelor of Science in Clinical Laboratory Science replaced the Bachelor of Science in Medical Technology.
24. The Bachelor of Science in Geological Sciences was conferred in the College of Natural Sciences through summer 2006; in fall 2006, it was conferred in both the College of Natural Sciences and the Jackson School of Geosciences; since spring 2007, it has been conferred only in the Jackson School.
25. Prior to the summer session 1992, this degree was designated Bachelor of Science in Home Economics.
26. Prior to the summer session 1992, this degree was designated Bachelor of Science in Home Economics. Through 1999–2000, the Bachelor of Science in Interior Design was conferred in the College of Natural Sciences; in 2000–2001, it was awarded in both the College of Natural Sciences and the School of Architecture.
27. In fall 2000, the Bachelor of Science in Medical Technology was replaced by the Bachelor of Science in Clinical Laboratory Science.
28. Prior to the summer session 1992, this degree was designated Bachelor of Science in Home Economics.
29. Between 1929 and 1943, the Bachelor of Science in Nursing degree was conferred in the College of Arts and Sciences. Eleven women graduated in the program.
30. Prior to 1998–1999, the Doctor of Pharmacy was conferred in the Graduate School. In 1998–1999, the degree was awarded in both the Graduate School and the College of Pharmacy; thereafter it was awarded in the College of Pharmacy.
31. Prior to summer session 1971, degrees in the Colleges of Humanities, Natural Sciences, and Social and Behavioral Sciences and the Division of General and Comparative Studies were conferred in the College of Arts and Sciences. Beginning with the spring semester 1979, the degrees for the Colleges of Humanities and Social and Behavioral Sciences and the Division of General and Comparative Studies have been awarded in the College of Liberal Arts.
32. The degree is offered by the Jackson School of Geosciences with a major in geological sciences, by the College of Liberal Arts with a major in geographical sciences, and by the College of Natural Sciences with a major in biological sciences. The degree programs share common prescribed work, but each major has its own specific requirements.
33. In fall 2018, the Bachelor of Arts in Art was replaced in the College of Fine Arts by the Bachelor of Arts.

## Summary of Enrollment in Residence

	Men	Women	Both
Fall semester 2019	23,862	27,228	51,090
Spring semester 2020	22,642	25,892	48,534
Summer session 2020	7,567	9,472	17,039

## Enrollment in Residence, 1883-2020 <sup>1</sup>

For the period prior to 1983–84, enrollment is given for every fifth year. Annual enrollment for the years 1883–84 through 1932–33 is given in the 1951–52 edition of *General Information*; annual enrollment for 1933–34 through 1982–83 is given in the 2007–08 edition.

	Fall Semester	Summer Session
1883–1884	221	
1888–1889	278	
1893–1894	355	
1898–1899	594	186
1903–1904	837	285
1908–1909	1,533	741
1913–1914	2,254	980
1918–1919	2,812	1,592
1923–1924	4,672	3,145
1928–1929	5,863	3,155 <sup>2</sup>
		3,449
1933–1934	6,652	4,673
1938–1939	10,114	6,062
1943–1944	6,532	4,929
1948–1949	17,035	9,713
1953–1954	14,101	7,643
1958–1959	17,895	8,115
1963–1964	22,385	11,082
1968–1969	32,155	16,226
1973–1974	40,611	19,643
1978–1979	43,095	19,216
1983–1984	47,631	22,545
1984–1985	47,973	22,419
1985–1986	47,838	20,582
1986–1987	46,140	20,606
1987–1988	47,743	21,148
1988–1989	50,107	21,599
1989–1990	50,245	20,672
1990–1991	49,617	21,065
1991–1992	49,961	21,491
1992–1993	49,253	20,362
1993–1994	48,555	19,353
1994–1995	47,957	18,691
1995–1996	47,905	18,879
1996–1997	48,008	17,843
1997–1998	48,857	18,004
1998–1999	48,906	17,611
1999–2000	49,009	17,871
2000–2001	49,996	17,511
2001–2002	50,616	18,399
2002–2003	52,261	18,606
2003–2004	51,426	18,002
2004–2005	50,377	17,506
2005–2006	49,696	16,409
2006–2007	49,697	16,004
2007–2008	50,170	15,420
2008–2009	49,984	15,336
2009–2010	50,995	16,137
2010–2011	51,195	16,193
2011–2012	51,112	15,660

2012-2013	52,186	15,809
2013-2014	52,059	14,934
2014-2015	51,313	13,740
2015-2016	50,950	13,483
2016-2017	51,331	13,049
2017-2018	51,525	12,759
2018-2019	51,832	12,085
2019-2020	51,090	17,039

1. Prior to the session of 1929–1930, the summer session figures are grouped with the following fall semester and the extension year used is the September 1–August 31 year preceding the fall semester. Beginning with the session of 1929–1930, statistics are given for the academic year (September 1–August 31), the summer session being grouped with the preceding fall semester, and the extension year used being the September 1–August 31 year concurrent with the fall semester and summer session indicated.

2. Because of the change in the method of recording enrollment figures, as explained in footnote 1, the figures for the 1929 summer session and the 1928–1929 extension year are given separately.

## Courses

The University offers courses in the following fields of study. The abbreviations in parenthesis are used in catalogs, course schedules, and student records. For Medical courses, please see the courses section in the [Medical School Catalog](#). For Law courses, please see the courses section in the [Law School Catalog](#).

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# Accounting Courses

## Accounting: ACC

### Lower-Division Courses

#### ACC 310F. Foundations of Accounting.

Restricted to non-McCombs School of Business majors. An introduction to financial and managerial accounting, with emphasis on the content, interpretation, and uses of accounting reports. Discussion of the determination and reporting of net income and financial position, and the theories underlying business financial statements; consideration of managerial accounting topics designed to extend the student's knowledge to the planning and controlling of the operations of the firm. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Business Administration degree.

#### ACC 311 (TCCN: ACCT 2301). Fundamentals of Financial Accounting.

Restricted to students in the McCombs School of Business. Concepts and their application in transaction analysis and financial statement preparation; analysis of financial statements. Three lecture hours a week for one semester. Accounting 311 and 311H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Twenty-four semester hours of college credit, including Economics 304K.

#### ACC 311H. Fundamentals of Financial Accounting: Honors.

Restricted to students in the McCombs School of Business Honors Program. An exploration of concepts and their application in transaction analysis and financial statement preparation; and analysis of financial statements. Three lecture hours a week for one semester. Accounting 311 and 311H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Twenty-four semester hours of college credit including Economics 304K, Management Information Systems 301, 301H, or 302F, and credit or registration for Business Administration 324H.

#### ACC 312 (TCCN: ACCT 2302). Fundamentals of Managerial Accounting.

Restricted to students in the McCombs School of Business. Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing. Three lecture hours a week for one semester. Accounting 312 and 312H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Accounting 311 or 311H, and credit or registration for Operations Management 235 or 235H.

#### ACC 312H. Fundamentals of Managerial Accounting: Honors.

Restricted to students admitted to the McCombs School of Business Honors Program. Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing. Three lecture hours a week for one semester. Accounting 312 and 312H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Accounting

311H, Business Administration 151H, and credit or registration for Operations Management 235H.

## Upper-Division Courses

### ACC 326. Financial Accounting--Intermediate.

Restricted to students in a business major. Theoretical foundation, concepts, and principles underlying financial statements; current assets; current liabilities; property, plant, and equipment; short-term investments; present value analysis. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Accounting 311 or 311H, and 312 or 312H, with a grade of at least C- in each; and credit or registration for Finance 357 or 357H.

### ACC 327. Financial Statement Analysis.

Restricted to students in a business major. Study of financial statements and their related footnotes; tools and procedures common to financial statement analysis; the relationships among business transactions, environmental forces (political, economic, and social), and reported financial information; and how financial statement information can help solve certain business problems. Three lecture hours a week for one semester. Accounting 327 and 380K (Topic 7: Financial Statement Analysis) may not both be counted. Prerequisite: Accounting 326 with a grade of at least C-.

### ACC 329. Managerial Accounting and Control.

Restricted to students in a business major. The origination, processing, reporting, and use in business operations of accounting information for management purposes. Three lecture hours a week for one semester. Only one of the following may be counted: Business Administration 382T, Accounting 329, 359, 387 (Topic 1), 287 (Topic 5). Prerequisite: Accounting 311 or 311H, and 312 or 312H, with a grade of at least C- in each.

### ACC 334M. Healthcare Accounting.

Identify and analyze healthcare revenues, expenses, management problems, and ethical dilemmas, applying theories and tools to recommend strategic solutions. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Accounting 311 or 310F.

### ACC 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in Accounting.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Accounting. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

### ACC 151. Accounting Careers Exploration.

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. Presentations by professional accountants and managers. One and one-half lecture hours a week for one semester. Offered on the letter-grade basis only.

### ACC 152. Master in Professional Accounting Distinguished Speaker Lyceum.

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. Discussion of current issues confronting the accounting profession. The equivalent of one and one-half lecture hours a week for one semester. Offered on the pass/fail basis only.

### **ACC 355. Introduction to Taxation.**

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. The role of taxes in contemporary society and their impact on individuals and business. Three lecture hours a week for one semester. Only one of the following may be counted: Accounting 355, 364, 380K (Topic 11: Introduction to Taxation). Offered on the letter-grade basis only.

### **ACC 356. Financial Accounting Concepts and Research.**

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. Conceptual framework of financial accounting; research methods in financial reporting; and financial reporting institutions and regulations. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **ACC 358C. Auditing and Other Assurance Services.**

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. Information quality assurance, auditing, and control, considered from the perspective of a business manager who must decide the type and amount of assurance to acquire. Three lecture hours a week for one semester. Only one of the following may be counted: Accounting 358C, 362, 380K (Topic 4). Offered on the letter-grade basis only. Prerequisite: Accounting 356 or the equivalent.

### **ACC 359. Managerial/Cost Accounting.**

Restricted to students admitted to the integrated approach to the Master in Professional Accounting. Analysis of manufacturing costs, development of cost estimates, and preparation of relevant information for management decision making. Three lecture hours a week for one semester. Only one of the following may be counted: Accounting 329, 359, 287 (Topic 5), 287 (Topic 1), 387 (Topic 1), 387 (Topic 5), Business Administration 382T. Offered on the letter-grade basis only.

### **ACC 362. Auditing and Control.**

Same as Business Analytics 362. Restricted to students in a business major. Professional practice standards and procedures of auditing: ethics, legal liability, sampling methods, control systems, control design, and control evaluation. Three lecture hours a week for one semester. Only one of the following may be counted: Accounting 358C, 362, 380K (Topic 4), Business Analytics 362. Prerequisite: Accounting 311 or 311H, and 312 or 312H, with a grade of at least C- in each.

### **ACC 364. Fundamentals of Taxation.**

Restricted to students in a business major. Introduction to the role of taxes in contemporary society and their impact on individuals and business entities; emphasis on federal income taxation. Three lecture hours a week for one semester. Only one of the following may be counted: Accounting 355, 364, 380K (Topic 11: Introduction to Taxation). Prerequisite: Accounting 311 or 311H, and 312 or 312H, with a grade of at least C- in each.

### **ACC 366C. International Accounting and Transfer Pricing.**

Same as International Business 366. Discover how to price transactions between subsidiaries of multinational corporations buying and selling goods, services, intellectual property and other assets in light of tax obligations and other considerations. Three lecture hours a week for one semester. Accounting 366C and International Business 366 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **ACC 366P. Accounting Practicum.**

Restricted to students in a business major. Students apply skills in their major area and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise. The equivalent of three lecture

hours a week for one semester. Accounting 366P and 384 (Topic: Tax Practicum) may not both be counted. Prerequisite: Forty-five semester hours of college coursework.

### **ACC 178, 278, 378. Contemporary Accounting Topics.**

Restricted to students in a business major. In-depth study of selected accounting topics. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Accounting 311 or 311H, and 312 or 312H, with a grade of at least C- in each; additional prerequisites vary with the topic.

#### **Topic 2: Petroleum Accounting: Principles, Procedures, and Issues.**

Restricted to business majors. Exposure to upstream oil and gas operations and reserves, and industry accounting practices. Only one of the following may be counted: Accounting 178 (Topic 2), 278 (Topic 2), 378 (Topic 2), 378 (Topic: Accounting/Tax for Mineral Industry), 180K (Topic 8), 280K (Topic 8), 380K (Topic 8). Offered on the letter-grade basis only.

#### **Topic 3: Financial Planning for Wealth Management.**

Introduction to basic concepts of personal wealth management and financial planning, including insurance and risk management, investment management, tax planning, estate planning, and retirement planning. Designed for upper-level finance and accounting majors interested in a career in financial services or MPA students with interest in this area of the accounting profession. Only one of the following may be counted: Accounting 378 (Topic: Financial Planning for Wealth Management), 178 (Topic 3), 278 (Topic 3), 378 (Topic 3), 180K (Topic 24), 280K (Topic 24), 380K (Topic 24), Finance 172 (Topic 3), 272 (Topic 3), 372 (Topic 3), 377 (Topic: Financial Planning for Wealth Management). Offered on the letter-grade basis only. Additional prerequisite: Credit or registration for Finance 357 or 357H; credit or registration for Accounting 364 is recommended.

#### **Topic 5: Taxation of Real Estate Investments.**

Exposure to accounting practices in the real estate industry. Only one of the following may be counted: Accounting 378 (Topic: Taxation of Real Estate Invest), 178 (Topic 5), 278 (Topic 5), 378 (Topic 5), Real Estate 360 (Topic: Taxation of Real Estate Invest), 360 (Topic 1). Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing.

### **ACC 179C, 379C. Independent Research in Accounting.**

Restricted to students in the McCombs School of Business. Conference course. Only one of the following may be counted: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upper-division; Accounting 311 or 311H, and 312 or 312H, with a grade of at least C- in each; consent of instructor; and written approval on forms provided for that purpose before the first meeting of the course from the department chair's office.

## **Graduate Courses**

### **ACC 180C. MPA Distinguished Speaker Lyceum.**

Discussion of current issues confronting the accounting profession. Two lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and admission to the traditional approach to the Master in Professional Accounting program.

### **ACC 380D. Advanced Topics in Financial Reporting.**

Examines issues in financial reporting from a user's perspective, including how important economic transactions of large public companies are reflected in financial statements. Three lecture hours a

week for one semester. May not be counted by students with credit for Accounting 380K (Topic 1: Financial Accounting Standards and Analysis I) or 380K (Topic 2: Financial Accounting Standards and Analysis II). Prerequisite: Graduate standing, admission to the Master of Business Administration program, and Business Administration 384T.

### **ACC 180K, 280K, 380K. Contemporary Accounting Topics.**

In-depth study of selected accounting topics. One, two, or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Financial Accounting Standards and Analysis I.** Additional prerequisite: For students enrolled in the Master of Business Administration program, Business Administration 384T and 385T; for students enrolled in the traditional approach to the Master in Professional Accounting program, Accounting 381 or the equivalent and credit or registration for Business Administration 385T or the equivalent; for students enrolled in the integrated approach to the Master in Professional Accounting program, Accounting 356 and Finance 357 or the equivalent.

**Topic 2: Financial Accounting Standards and Analysis II.** Accounting 360 and 380K (Topic 2) may not both be counted. Additional prerequisite: Accounting 380K (Topic 1) or the equivalent or consent of instructor.

**Topic 3: Financial Reporting Institutions and Regulations.**

**Topic 4: Auditing and Other Assurance Services.** Only one of the following may be counted: Accounting 358C, 362, 380K (Topic 4). Prerequisite: Accounting 356, 381, Business Administration 384T, or the equivalent.

**Topic 5: Introduction to Management Advisory Services.** Additional prerequisite: Accounting 356, 381, Business Administration 384T, or the equivalent.

**Topic 7: Financial Statement Analysis.** Accounting 327 and 380K (Topic 7) may not both be counted. Additional prerequisite: Accounting 356, 381, Business Administration 384T, or the equivalent.

**Topic 8: Petroleum Accounting: Principles, Procedures, and Issues.** Only one of the following may be counted: Accounting 178 (Topic 2), 278 (Topic 2), 378 (Topic 2), 378 (Topic: Accounting/Tax for Mineral Industry), 180K (Topic 8), 280K (Topic 8), 380K (Topic 8). Additional prerequisite: Accounting 356, 381, Business Administration 384T, or the equivalent.

**Topic 10: Tax Factors in Business Management.** Additional prerequisite: Accounting 356, 381, Business Administration 384T, or the equivalent.

**Topic 11: Introduction to Taxation.** Only one of the following may be counted: Accounting 355, 364, 380K (Topic 11). Additional prerequisite: For students enrolled in the Master of Business Administration program, Business Administration 384T; for students enrolled in the traditional approach to the Master in Professional Accounting program, credit or registration for Accounting 381 or the equivalent.

**Topic 12: Computer Auditing and Systems Security.** Additional prerequisite: Accounting 356, 381, Business Administration 384T, or the equivalent.

**Topic 13: Information Technology for Accounting and Control.** Additional prerequisite: Accounting 356, 381, Business Administration 384T, or the equivalent.

**Topic 14: Managing Information.** Additional prerequisite: Accounting 356, 381, Business Administration 384T, or the equivalent.

**Topic 15: Business and Systems Change.** Additional prerequisite: Accounting 356, 381, Business Administration 384T, or the equivalent.

**Topic 16: Cross-Functional Integrated Systems.** Additional prerequisite: Accounting 380K (Topic 15).

**Topic 17: Cross-Functional Project Management.** Additional prerequisite: Accounting 356, 381, Business Administration 384T, or the equivalent.

**Topic 18: Project Management in Fast-Cycle Environments.** Additional prerequisite: Accounting 356, 381, Business Administration 384T, or the equivalent.

**Topic 19: International Accounting Policies and Procedures.** Additional prerequisite: For students enrolled in the Master of Business Administration program, Business Administration 384T; for students enrolled in the traditional approach to the Master in Professional Accounting program, Accounting 381 or the equivalent; for students enrolled in the integrated approach to the Master in Professional Accounting program, Accounting 355, 356, 358C, and 359.

**Topic 20: International and European Accounting Standards.** Additional prerequisite: For students enrolled in the Master of Business Administration program, Business Administration 384T; for students enrolled in the traditional approach to the Master in Professional Accounting program, Accounting 381 or the equivalent; for students enrolled in the integrated approach to the Master in Professional Accounting program, Accounting 355, 356, 358C, and 359.

**Topic 21: Global Teams.**

**Topic 22: Accounting and Auditing Research: Introduction to Design and Evaluation.** Designed to help students evaluate, formulate, and conduct scholarly research in financial reporting. Subjects include advantages of archival, experimental, and theoretical methods, evaluating validity of design, and overcoming research barriers. Accounting 380K (Topic: Accounting and Auditing Research: Introduction to Design and Evaluation) and 380K (Topic 22) may not both be counted.

**Topic 23: Accounting Issues in Measurement and Valuation.** Examines the predictive analytics of financial statement numbers and how these accounting forecasts, estimates and judgments are made in practice, and how external auditors evaluate them. Insights from financial economics, psychology, and statistics provide a foundation for exploring accounting and auditing measurement challenges such as customer behavior analytics for loan default or loyalty award redemption; actuarial methods for establishing product warranty or insurance reserves; fair value models for brand names, trade secrets, and customer relationships; and other applications involving uncertain accounting numbers. For each semester hour of credit earned, one lecture hour a week for one semester. Accounting 380K (Topic: Accounting Issues in Measurement and Valuation) and 380K (Topic 23) may not both be counted. Additional prerequisite: The following coursework: Accounting 356, 381, Business Administration 384T, or the equivalent; Accounting 380K (Topic 1) or 380D; and 358C or 380K (Topic 4).

**Topic 24: Financial Planning for Wealth Management.** Introduction to basic concepts of personal wealth management and financial planning, including insurance and risk management, investment management, tax planning, estate planning, and retirement planning. Designed for upper-level accounting and finance majors interested in a career in financial services and MPA students with interest in this area of the accounting profession. Only one of the following may be counted: Accounting 378 (Topic: Financial Planning for Wealth Management), 178 (Topic 3), 278 (Topic 3), 378 (Topic 3), 180K (Topic 24), 280K (Topic 24), 380K (Topic 24), Finance 172 (Topic 3), 272 (Topic 3), 372 (Topic 3), 377 (Topic: Financial Planning for Wealth Management). Additional prerequisite: Accounting 311 and Finance 357; credit or registration for Finance 367 is recommended; consent of graduate adviser and instructor.

**Topic 25: Accounting in the Entertainment Industry.** Explores challenges and rewards of accounting in the entertainment industry. Covers the requisite skills needed to account for film and television

production costs, while utilizing the latest software. Additional prerequisite: The following with a grade of at least C-: Accounting 311 or 311H, and Accounting 312 or 312H.

**Topic 26: Government and Not-for-Profit Accounting.** Accounting 380K (Topic 6) and 380K (Topic 26) may not both be counted.

**Topic 27: Taxation of Real Estate Investment.** Exposure to accounting practices in the real estate industry.

### **ACC 381. Financial Accounting.**

Concepts and issues involved in the preparation and interpretation of financial statements; the use of financial information to evaluate and control an organization. Three lecture hours a week for one semester. Accounting 381 and Business Administration 284T, 384T may not both be counted. Prerequisite: Graduate standing, admission to the traditional approach to the Master in Professional Accounting program, and Accounting 311 or the equivalent.

### **ACC 381M. Financial Accounting Issues in Business Decisions.**

An integrative and intensive examination of financial accounting, with emphasis on management's alternative reporting strategies and investors' decisions. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Business Administration 384T or the equivalent.

### **ACC 381N. Managerial Accounting and Financial Statement Analysis.**

Surveys the strategic uses of the most important elements of internal accounting systems, including cost accounting systems and management control systems used for planning and budgeting, and the use of publicly available financial accounting information to evaluate past performance, forecast future performance, and estimate the value of debt and equity securities. Meets all day on alternate Fridays and Saturdays. May not be counted by students with credit for Accounting 380K (Topic 7). Prerequisite: Graduate standing.

### **ACC 281P. Performance Management and Control for Executives.**

Restricted to students in the Executive MBA Program. Examine accounting information and tools executives need to plan and evaluate personnel and operations of the firm. Explore a framework that provides a better understanding of when and why executives need specific types of accounting information to both facilitate their own decisions and influence the decisions of their employees. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **ACC 382K. Studies in Accounting Information Systems.**

Quantitative and/or computerized applications to business problems; computer-based accounting information systems; analysis of optimizing models; simulation of important functional activities; large-scale simulation of the firm. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; Accounting 356, Accounting 381, Business Administration 384T, or the equivalent, or consent of instructor; and Accounting 359, Accounting 387 (Topic 1: Introduction to Managerial Accounting), or the equivalent, or consent of instructor.

**Topic 1: Principles of Systems Analysis.** Three lecture hours a week for one semester. Some sections require two laboratory hours a week as well; these sections are identified in the Course Schedule.

**Topic 2: Computer Auditing.** Additional prerequisite: Accounting 358C or 380K (Topic 4: Introduction to Assurance Services), and Accounting 380K (Topic 13: Information Technology for Accounting and Control) or the equivalent.

**Topic 3: Topics in Accounting Systems and Control.**

**Topic 4: Database Management in Accounting.**

**Topic 5: Topics in Information Systems.**

### **ACC 383K. Studies in Auditing.**

Professional and technical aspects of practice; ethics and legal responsibilities; review of fieldwork, emphasizing materiality, sampling, and working papers; reporting problems, including long-form and special purpose reports; fraud examination and audit methods. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Studies in Auditing, MPA Program.** Additional prerequisite: Accounting 358C, 380K (Topic 4: Introduction to Assurance Services), or the equivalent, or consent of instructor.

**Topic 2: Management Auditing and Control.** Additional prerequisite: For students in the Master of Business Administration program, Business Administration 384T or the equivalent; for students in the traditional approach to the Master in Professional Accounting program, credit or registration for Accounting 381, Business Administration 384T, or the equivalent; for students in the integrated approach to the Master in Professional Accounting program, credit or registration for Accounting 358C or the equivalent.

**Topic 3: Auditing and Control, MBA Program.** Additional prerequisite: Accounting 387 (Topic 1: Introduction to Managerial Accounting) or the equivalent, and Business Administration 384T or the equivalent.

**Topic 4: Fraud Examination.** Additional prerequisite: For students in the Master of Business Administration program, Business Administration 384T or the equivalent; for students in the traditional approach to the Master in Professional Accounting program, Accounting 381, Business Administration 384T, or the equivalent, or consent of instructor; and Accounting 387 (Topic 1: Introduction to Managerial Accounting) or the equivalent, or consent of instructor; for students in the integrated approach to the Master in Professional Accounting program, Accounting 356 or consent of instructor, and Accounting 359 or the equivalent or consent of instructor.

**Topic 5: Topics in Auditing.** Additional prerequisite: Accounting 356, 359, 381, 387 (Topic 1: Introduction to Managerial Accounting), and Business Administration 384T, or their equivalents.

**Topic 6: Practicum in Accounting.** Additional prerequisite: Credit or registration for Accounting 358C or 380K (Topic 4).

### **ACC 384. Research and Planning in Federal Taxes.**

Advanced analysis in federal taxation, with emphasis on historical and current developments; application of research techniques to income tax and estate tax planning; case studies and reports. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and admission to the Master in Professional Accounting degree program or consent of instructor.

**Topic 1: Tax Research Methodology.** Additional prerequisite: For students in the integrated approach to the Master in Professional Accounting program, Accounting 355 or the equivalent; for students in the traditional approach to the Master in Professional Accounting program, credit or registration for Accounting 380K (Topic 11: Introduction to Taxation) or the equivalent or consent of instructor.

**Topic 2: Taxation of Entities I.** Focuses on taxation of C corporations and their shareholders. Additional prerequisite: Credit or registration for Accounting 384 (Topic 1).

**Topic 3: Taxation of Entities II.** Focuses on flow-through entities, including partnerships. Additional prerequisite: Credit or registration for Accounting 384 (Topic 1).

**Topic 4: Tax Planning for Business Entities.** Additional prerequisite: Credit or registration for Accounting 384 (Topic 2).

**Topic 5: Family Tax Planning--Estates, Trusts, and Gifts.** Additional prerequisite: Credit or registration for Accounting 384 (Topic 1) or consent of instructor.

**Topic 6: International and Interstate Taxation.** Additional prerequisite: Credit or registration for Accounting 384 (Topic 1).

**Topic 7: Fundamentals of Taxation--Advanced Topics.** Additional prerequisite: Accounting 355, 380K (Topic 11: Introduction to Taxation), or the equivalent.

**Topic 8: Miscellaneous Tax Topics.**

**Topic 9: Oil and Gas Taxation.** An analysis of the United States federal income taxation of domestic oil and gas operations and transactions. Examines taxation associated with the operational life cycle of oil and gas operations including exploration, development, production, and abandonment, as well as transactions involving oil and gas interests analysis acquisition, disposition, structuring and investment.

### **ACC 386K. Studies in Accounting Theory.**

Financial accounting theory; current pronouncements on theory; problems of income determination; accounting research and research methodology applied to accounting issues. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, admission to the doctoral degree program in accounting, and consent of instructor.

**Topic 1: Contemporary Accounting Topics.**

**Topic 2: Introduction to Research Methodology in Accounting.**

**Topic 3: Empirical Research in Accounting.**

**Topic 4: Analytical Research in Accounting.**

**Topic 5: Behavioral Research in Accounting.**

**Topic 6: Doctoral Research Topics.**

**Topic 7: Foundations of Financial Accounting Research.**

### **ACC 287, 387. Studies in Profit Planning and Control.**

The use of accounting information by managers within the organization for decision making, planning, and the design of control systems for implementing the organization's strategy. Topics include long-range planning, annual profit planning, activity-based costing, cost prediction, strategic control systems, and performance evaluation. Case studies are used. For 287, four lecture hours a week for half a semester; for 387, three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Introduction to Managerial Accounting.** Only one of the following may be counted: Accounting 329, 359, 287 (Topic 1), 287 (Topic 5), 387 (Topic 1), 387 (Topic 5), Business Administration 382T.

**Topic 2: Topics in Profit Planning and Control.** Additional prerequisite: Accounting 359, 387 (Topic 1), or the equivalent.

**Topic 3: Strategic Cost.** Additional prerequisite: Accounting 359, 387 (Topic 1), or the equivalent.

**Topic 4: Strategic Control Systems.** Additional prerequisite: Accounting 359, 387 (Topic 1), or the equivalent.

**Topic 5: Performance Management and Control.** Only one of the following may be counted: Accounting 329, 359, 287 (Topic 1), 287 (Topic 5), 387 (Topic 1), 387 (Topic 5), Business Administration 382T.

### **ACC 191C, 291C, 391C, 691C. Special Studies in Accounting.**

Conference course. May be repeated for credit. Prerequisite: Graduate standing; admission to the Master in Professional Accounting program or the doctoral program in accounting; and consent of instructor.

### **ACC 192N, 292N, 392N, 492N, 592N, 692N. Master in Professional Accounting Internship.**

Restricted to students in the Master in Professional Accounting Program. Focus on academic and professional development through valuable work experience and the integration of accounting knowledge

by working with public or private enterprises. A minimum of 320 hours of work, a daily work-related journal, and paper are needed for internship credit. Hours to be arranged. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admissions into the Master in Professional Accounting Program and prior approval from the internship coordinator.

### **ACC 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in the doctoral program in accounting and consent of the supervising faculty member and the graduate adviser; for 698B, Accounting 698A.

### **ACC 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in the doctoral program in accounting, completion of the core courses for the degree, and consent of the supervising faculty member and the graduate adviser.

### **ACC 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Actuarial Foundations Courses**

## **Actuarial Foundations: ACF**

### **Lower-Division Courses**

#### **ACF 110C, 210C, 310C, 410C. Conference Course.**

Supervised study of selected subjects by individual arrangement with department and instructor. Conference course. May be repeated for credit. Prerequisite: Written consent of instructor.

#### **ACF 110T. Conference Course: Texas Department of Insurance Internship.**

Supervised internship at the Texas Department of Insurance. Conference course. May be repeated for credit. Admission by application only. Students must apply to the director of the concentration in actuarial studies the semester before they take the course.

#### **ACF 112M. Actuarial Laboratory on Probability and Statistics.**

Problems and supplementary instruction in probability and statistics, especially as required for the Society of Actuaries and Casualty Actuarial Society Exam 110. Three laboratory hours a week for one semester. Prerequisite: Mathematics 362K, credit or registration for Mathematics 378K, and consent of the director of the concentration in actuarial studies.

### **Upper-Division Courses**

#### **ACF 329. Theory of Interest.**

Same as Mathematics 329F. Measurement of interest, present and accumulated value, amortization, sinking funds, bonds, duration, and immunization. Covers the interest-theory portion of an exam of the Society of Actuaries and the Casualty Actuarial Society. Three lecture hours a week for one semester. Only one of the following may be counted: Actuarial Foundations 329, Mathematics 329F, 389F. Prerequisite: Mathematics 408D, 308L, 408L, 408M, or 408S with a grade of at least C-.

### **ACF 129D. Introductory Actuarial Financial Mathematics.**

Introductory analysis of financial derivatives. Covers the financial derivatives portion of the syllabus for the professional actuarial exam on financial mathematics. One lecture hour a week for one semester. Offered on the pass/fail basis only. Prerequisite: Credit with a grade of at least C- or registration for Actuarial Foundations 329 or Mathematics 329F.

## **Graduate Courses**

## **Professional Courses**

# **Advertising Courses**

## **Advertising: ADV**

### **Lower-Division Courses**

#### **ADV 303. Advertising and Popular Culture.**

An introduction to the role advertising plays in American society, and the values and relationships offered in the messages that are delivered. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising degree or the Bachelor of Science in Public Relations degree.

#### **ADV 305. Fundamentals of Advertising.**

Fundamentals and practices of advertising in relation to economies, societies, and mass communication. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or Bachelor of Science in Public Relations degrees.

#### **ADV 305S. Introduction to Integrated Communication for Sports.**

Same as Public Relations 305S. Examination of the mass media industry in relation to the field of sports. Focus on the "off-the-field" industries of advertising, marketing, and public relations that impact sports; rights fees contracts; pre-game shows; gameday production; in-stadium activities; and press coverage. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 305S, 378 (Topic 7: Integrated Communication for Sports), Kinesiology 352K (Topic: Integrated Communication for Sports), Public Relations 305S.

#### **ADV 309R. Introduction to Advertising and Public Relations Research.**

Same as Public Relations 309. Introduction to concepts and methods of statistics, with emphasis on analyzing personal and group behaviors. Includes exploratory data analysis, correlation and regression, descriptive statistics, sampling distributions, confidence intervals, and hypothesis testing. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 309R, 378 (Topic: Introduction to Advertising and Public Relations Research), Public Relations 309, 378 (Topic: Introduction to Advertising and Public Relations Research).

#### **ADV 314. Social and Ethical Issues.**

Designed to identify, analyze, and respond to social and ethical issues in advertising and public relations. Covers race, ethnicity, and gender identity. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or the Bachelor of Science in Public Relations degrees.

#### **ADV 315. History and Development of Advertising.**

The evolution and development of advertising in the United States in a social, historical, economic, and cultural context. Three lecture hours a week for one semester.

### **ADV 316. Creativity and American Culture.**

Same as Public Relations 316. A cross-disciplinary view of the creative process and creative products. The conceptual core of film, fine arts, advertising, architecture, and literature. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or the Bachelor of Science in Public Relations. Fulfills the communication and culture requirement in the College of Communication.

#### **ADV 318J. Introduction to Advertising and Integrated Brand Communication.**

The functions of advertising and public relations; role in marketing/communications mix; economic and social influence; advertising and public relations institutions and media; campaigns and appropriations; retail and business-to-business aspects. Three lecture hours a week for one semester. Students may not enroll in Advertising 318J more than twice.

#### **ADV 319. Psychology of Advertising.**

A review of basic findings of the behavioral sciences dealing with perception, personality, group behavior, psychological appeals, and their application to advertising, public relations, and marketing as persuasive communication. Three lecture hours a week for one semester.

## **Upper-Division Courses**

#### **ADV 320. Integrated Communication for Nonprofit Organizations.**

Same as Public Relations 320. Explores integrated communication and branding in a variety of nonprofit settings. Examines the strategic, integrated use of multiple communication approaches, including advertising, public relations, new media, promotions, sponsorships, and special events. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 320, 378 (Topic 17), Public Relations 320, 378 (Topic 5).

#### **ADV 321. Leadership and Ethics.**

Same as Public Relations 321. Explores leadership, communication, ethics, and the ability to lead others ethically and effectively. Examine concepts and frameworks related to skills that are integral to ethical, effective leadership. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 321, 378 (Topic 11), Public Relations 321, 378 (Topic: Leadership and Ethics).

#### **ADV 322. Health Communication: Messages, Campaigns, and the Media.**

Same as Public Relations 322. Covers the development of effective health messages, the design of health campaigns, and investigate the role of the media in influencing people's health and perceptions of health. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 322, 378 (Topic: Health Communication), Public Relations 322.

#### **ADV 323. Public Communication of Science and Technology.**

Same as Public Relations 323. Explores the rapidly growing field of science communication. Examines the intersection of science, media, and society, focusing on media's impact on how people come to understand, perceive, and act relative to scientific issues. Special attention will be directed toward the strategic communication of science and maximizing scientists' engagement with public audiences. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 323, 378 (Topic: Public Comm of Science/Tech), Public Relations 323, 378 (Topic: Public Comm of Science/Tech).

**ADV 324. Communicating Sustainability.**

Same as Public Relations 324. Focuses on persuasion in the context of environmental attitudes and behaviors. Explores how humans think about and interact with the environment, paying particular attention to climate change. Drawing on theory and examples, examines the challenges and opportunities that arise when people try to communicate about the environment and change individual attitudes and behaviors. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 324, 378 (Topic: Communicating Sustainability), Public Relations 324, 378 (Topic: Communicating Sustainability).

**ADV 325. Introduction to Advertising Creativity.**

Learn to apply creative theories, processes, and problem-solving skills to become more creative in any field. Three lecture hours a week for one semester. Prerequisite: Advertising 318J with a grade of at least B.

**ADV 327. Account Planning.**

Explores the role of account planning in an agency environment. Covers how to understand the business the client is in, the customers of the client, general environment of that business and all aspects of marketing practice that might affect the overall performance of the client's business. Three lecture hours a week for one semester. Advertising 327 and 378 (Topic 20) may not both be counted. Prerequisite: Advertising 344K and 345J with a grade of at least C-.

**ADV 328. Psychology of Video Game Advertising.**

Explores communication components (broadly defined) within game play and apply understanding of communication processes within game play to better understand how advertisers can leverage games to reach consumers. Three lecture hours for one semester. Advertising 328 and 378 (Topic 22) may not both be counted. Prerequisite: Upper-division standing.

**ADV 129. Selling in Media Industries.**

One lecture hour a week for one semester. Prerequisite: Upper-division standing.

**ADV 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Advertising.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Advertising. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

**ADV 332. Technology Marketing and Advertising.**

Same as Public Relations 332. Explores case histories, interviews with leading technology advertising and marketing executives, and latest trends in digital advertising, both mobile and social, as well as its impact across marketing segments and industries. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 332, 378 (Topic 23), Public Relations 332.

**ADV 332C. New Media Entrepreneurialism.**

Same as Public Relations 332C. Covers real life experience/exposure with a series of interviews with real-life practitioners from social media, venture capital, and others with expertise in the field. Explores important trends in digital content and digital business models; a primer for those who wish to learn about entrepreneurialism, technology, and its intersection with media. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 332C, 378 (Topic:

New Media Entrepreneurialism), Public Relations 332C, 378 (Topic: New Media Entrepreneurialism).

**ADV 332D. Entrepreneurialism in Communication.**

Same as Public Relations 332D. Project-oriented exercise where small teams conceptualize a business idea in communications, curate the insights and opinions of fellow team members, and ultimately develop a business plan around their new endeavor. A panel of local entrepreneurs will provide feedback and critique. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 332D, 378 (Topic: Entrepreneurialism in Comm), Public Relations 332D.

**ADV 334. International Advertising.**

Major issues in international advertising and advertising directed at cultural minorities within countries. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and a University grade point average of at least 2.25.

**ADV 336. Multicultural Issues in Advertising and Public Relations.**

Special topics exploring the impact of the major social, economic, and cultural aspects of advertising and public relations on ethnic and cultural groups in the United States. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ADV 338K. Digital Creative Portfolio.**

Examines the digital landscape in advertising and beyond. Examines existing advertising work and producing an advertising project. Present and describe digital projects in collaborative group settings using terms clients will value. Three lecture hours a week for one semester. Advertising 338K and 378 (Topic 24) may not both be counted. Prerequisite: Advertising 325 with a grade of at least C, and consent of instructor.

**ADV 338L. Copywriting.**

Introduction to copywriting for advertising and related industries. Develop conceptual and writing skills across a wide range of media. Enrollment in Texas Creative or previous creative writing experience preferred. Three lecture hours a week for one semester. Advertising 338L and 378 (Topic 10) may not both be counted. Prerequisite: Advertising 325 with a grade of at least C, and consent of instructor.

**ADV 339K. Digital Graphic Communication.**

Same as Public Relations 339K. Introduction to the fundamentals of good graphic design, as well as production basics. Develops digital design skills using industry-standard software, from print (Adobe InDesign, Photoshop, Illustrator) to motion (Adobe Premiere, AfterEffects) and interactive (HTML, CSS, WordPress). Assumes no prior knowledge. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 339K, 378 (Topic: Digital Graphic Communication), Public Relations 339K, 378 (Topic: Digital Graphic Communication).

**ADV 339L. Brand Storytelling.**

Same as Public Relations 339L. Examination of how classic elements of storytelling, semiotics, and symbolism can be used to create and manage a modern brand's story and 'meaning'. Create visual, verbal, and video examples of brand storytelling that go beyond traditional advertising and public relations. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 339L, 378 (Topic: Brand Storytelling), Public Relations 339L, 378 (Topic: Brand Storytelling).

**ADV 341S. Research in Sports Communication and Media.**

Same as Public Relations 341S. An introduction to advertising and public relations research and methodology for sports. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ADV 342. Advertising Copywriting.**

Copywriting for print and broadcast media. Methods for developing creative advertising concepts, strategies, and executions for print, radio, and television. Emphasis on writing rather than on art direction. Three lecture hours a week for one semester. Prerequisite: Advertising 325 with a grade of at least C, and instructor's approval of the student's previous work in advertising courses.

**ADV 343K. Portfolio I.**

Basic advertising art direction and copywriting skills, including indications for graphics, headlines, and body copy. Three lecture hours and three studio hours a week for one semester. Prerequisite: Advertising 325 with a grade of at least B, and admission to the Texas Creative program.

**ADV 344K. Advertising Research.**

Introduction to social science research methods as used in advertising and marketing; emphasis on survey research and secondary data. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; Advertising 318J with a grade of at least B; and Advertising 309R, Public Relations 309, or Statistics and Data Sciences 306 with a grade of at least C-.

**ADV 345J. Advertising Media Planning Foundations.**

An investigation of media-market measurements and strategies across the full spectrum of the industry; development of media communications plan. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Upper-division standing; Advertising 318J with a grade of at least B; and Advertising 309R, Public Relations 309, or Statistics and Data Sciences 306 with a grade of at least C-.

**ADV 447. Computer Imaging Topics.**

Introduction to computer graphics with applications to advertising and other disciplines. Students interact with computer systems to produce artwork and design portfolios. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Advertising 318J with a grade of at least B and consent of instructor received prior to registering.

**ADV 347D. Entertainment Press and Public Relations - LA.**

Same as Public Relations 347D. Restricted to students admitted to the Semester in Los Angeles Program. Introduction to the roles of the news and entertainment press, and publicity, promotion and public relations in the entertainment industry. Examines how these fields are linked, integrated or in tension, and provides a historical context for understanding the press and publicity sides of the entertainment business. Explores what makes marketing/advertising, PR and journalism in the entertainment industry distinct from these practices in other realms, while examining the components of current industry and practice. Three lecture hours a week for one semester. Advertising 347D and Public Relations 347D may not both be counted. May be repeated for credit. Prerequisite: Upper-division standing.

**ADV 348S. The Business of Sports Media.**

Same as Journalism 348G and Public Relations 348S. Examination of the business of sports-related media, including over-the-air television, cable, satellite television, print, radio, social media, and internet-based media, and the impact of such media on sports presentation and development, professional franchises, colleges, and conferences. Emphasis on how the business of sports media generates revenue and content, and the

business models for each type of media, the challenges to such models, and the likely future changes to them. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 348S, 378 (Topic: The Business of Sports Media), Communication 325 (Topic: The Business of Sports Media), Journalism 348G, 349T (Topic: The Business of Sports Media), Public Relations 348S, 378 (Topic: The Business of Sports Media).

**ADV 350, 650. Advertising Internship.**

Practical work experiences in advertising sales, creative management, and research with advertisers, agencies, media, or auxiliary services. For 350, an average of 12 hours of work a week, for a total of 180 hours a semester or summer session. For 650, an average of 24 hours of work a week, for a total of 360 hours a semester or summer session. Offered on the pass/fail basis only. Prerequisite: Advertising 344K and 345J with a grade of at least C- in each, and a University grade point average of at least 2.0.

**ADV 350S. Internship in Sports Media.**

Same as Public Relations 350S. Restricted to Texas Program in Sports and Media students. Practical work experience in sports media. Internship to be arranged by student and approved by instructor. The equivalent of three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or the Bachelor of Science in Public Relations degrees. Offered on the pass/fail basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.0; Advertising 305S or Public Relations 305S; and three additional hours from the Sports Media Certificate approved coursework list.

**ADV 151. Advertising Practicum.**

Internship and discussion hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Advertising 350, 650, or 468K, consent of departmental internship coordinator, and completion of department requirements for enrollment in an internship course.

**ADV 353. Advertising and Public Relations Law and Ethics.**

Same as Public Relations 353. Restricted to advertising and public relations majors. The equivalent of three lecture hours a week for one semester. Advertising 353 and Public Relations 353 may not both be counted. Fulfills the communication and culture requirement in the College of Communication. Prerequisite: Advertising 318J with a grade of at least B.

**ADV 364. Immersive Experiences.**

Same as Public Relations 364. Develop an understanding of an audience, the language of development, and awareness of the affordances of each medium to use them effectively in designing immersive user experiences. Work on a real-world client project, which will also be prepared for entry into an immersive storytelling competition. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 364, 378 (Topic: Immersive Experiences), Public Relations 364, 378 (Topic: Immersive Experiences). Prerequisite: Upper-division standing and consent of instructor.

**ADV 365. Audience Development and Engagement.**

Same as Public Relations 365. Examine the latest methods used to better understand audiences and their motivations. Explore new approaches and tools for engaging audiences in different content strategies, and what metrics can be used to measure their engagement in ways that prove valuable to content creators, marketers, and audiences. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 365, 378 (Topic: Audience Development & Engagement), Public Relations 365, 378 (Topic: Audience

Development & Engagement). Prerequisite: Upper-division standing and consent of instructor.

### **ADV 366. Special Topics in Advertising.**

Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising degree. May be repeated for credit when the topics vary.

### **ADV 367. Experimental Storytelling.**

Same as Public Relations 367E. Working with real-world clients, examine design thinking and human-computer interaction techniques while ideating, synthesizing concepts, creating user experiences, and developing a proof of concept (PoC) exemplary towards becoming an experience designer. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 367, 378 (Topic: Experimental Storytelling), Public Relations 367E, 378 (Topic: Experimental Storytelling). Prerequisite: Upper-division standing and consent of instructor.

### **ADV 368C. Advertising Senior Seminar.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Credit or registration for Advertising 344K and 345J, and written consent of instructor received prior to registering.

### **ADV 468K. Portfolio II.**

Intermediate advertising art direction and copywriting; special emphasis on execution skills and concepts. Three lecture hours and three studio hours a week for one semester. Prerequisite: Advertising 343K and consent of the Texas Creative program faculty.

### **ADV 468L. Portfolio III.**

Advanced advertising art direction and advertising creative concepts. Three lecture hours and three studio hours a week for one semester. With consent of instructor, may be repeated once for credit. Prerequisite: Advertising 468K and consent of the Texas Creative program faculty.

### **ADV 369. Social Media.**

Same as Public Relations 369. Introduction to social networking platforms and their application in relation to media plans, brand building, and insights. Three lecture hours a week for one semester. May be repeated once for credit. Only one of the following may be counted: Advertising 369, 378 (Topic: Social Media), Public Relations 369, 378 (Topic: Social Media). May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and consent of instructor.

### **ADV 370J. Integrated Communications Management.**

Cases and problems dealing with the management of advertising and promotional programs; media and creative strategies; consumer, retail, industrial, and public service applications. Three lecture hours a week for one semester. Advertising 370J and Public Relations 367 may not both be counted. Prerequisite: Advertising 344K and 345J with a grade of at least C- in each; Marketing 320F or 337 with a grade of at least C-.

### **ADV 373. Integrated Communications Campaigns.**

Concept of media mix; matching product, consumer, media profiles; conception, research, planning, and execution of advertising campaigns; special emphasis on advanced copywriting, layout, and production for print and broadcast media. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 373, 373H, Public Relations 377H, 377K. Prerequisite: Advertising 370J with a grade of at least C-

### **ADV 475. Portfolio IV.**

Designed to enhance the intellectual and philosophical framework of students in the Texas Creative program. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Advertising 468L and consent of the Texas Creative program faculty.

### **ADV 377. Advertising Media Topics.**

Restricted to students admitted to the TexasMedia Program. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Advertising 345J with a grade of at least B; and consent of instructor. Additional prerequisites vary with the topic.

**Topic 1: Advanced Media Strategies.** An in-depth dive into independent and group work with insights and strategies.

### **ADV 377M. Media Studies.**

Restricted to students admitted to the TexasMedia Program. Topics in media and its effects on advertising and public relations strategies. The equivalent of three lecture hours a week for one semester. Advertising 377M and Public Relations 377M may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Advertising 345J with a grade of at least B; and consent of instructor; additional prerequisites vary with the topic.

**Topic 1: Advanced Media Research.** Development of data analysis skills using various analytical techniques. Three lecture hours a week for one semester. Additional prerequisite: Upper-division standing.

**Topic 2: Advanced Studies in Media Sales.** Same as Public Relations 377M (Topic 2). Examination of advertising media sales beyond audience measurement techniques, and quantitative and qualitative data. The equivalent of three lecture hours a week for one semester. Advertising 377M (Topic 2) and Public Relations 377M (Topic 2) may not both be counted. Additional prerequisite: Upper-division standing, Advertising 345J with a grade of at least C, and consent of instructor.

**Topic 3: Digital Metrics.** An exploration of the evolving scope of digital metrics and analytics by looking at the three dimensions colliding in interactive media: business, communications, and technology.

**Topic 5: Media Metrics.** Additional prerequisite: Upper-division standing.

**Topic 7: Media Negotiations.** Additional prerequisite: Upper-division standing.

**Topic 8: Digital Insights.** Exploration of the terminology, measurement methods, and tools necessary for developing actionable management insights for digital content creation, promotion, and public relations.

**Topic 9: Media Investments.** An examination of media investments and negotiations, from both a buying and selling perspective. Investigates the activation role from all sides; the agency, vendor, and client.

**Topic 10: Media Showcase.** Research and project-based, designed to help remove the traditional and new barriers faced in the fields of media.

### **ADV 378. Advanced Studies in Advertising.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Prerequisites vary with the topic.

**Topic 4: Direct Marketing.** Additional prerequisite: Marketing 320F.

**Topic 15: Creative Project: Writing.** Additional prerequisite: Advertising 325 with a grade of at least C-, and consent of instructor.

**Topic 21: Semester in Los Angeles: Entertainment Promotion, Press, and Public Relations.** Same as Public Relations 378 (Topic 21). Restricted to students admitted to the Semester in Los Angeles Program. Consider the core disciplines of research, creative, distribution, advertising, publicity, and promotion as they apply to entertainment. Only one of the following may be counted: Advertising

378 (Topic: Entrtmnt Prss/Public Reltn-L A), 378 (Topic 21), Public Relations 378 (Topic: Entrtmnt Prss/Public Reltn-L A), 378 (Topic 21).

**Topic 26: Consumer Psychology and New Media.**

**Topic 27: Advanced Media Research, Insights, and Analysis.**

Additional prerequisite: Advertising 344K with a grade of at least C- and consent of instructor.

**Topic 37: Social Enterprise Branding.** Focus on the development of strategic branding and communication for businesses focused on balancing purpose and profit. Explore components of brand identity and implementation as they relate to the success or failure of companies enacting social impact across a number of industries. Advertising 378 (Topic: Social Enterprise Branding) and 378 (Topic 37) may not both be counted.

### **ADV 378S. Special Topics in Sports Media.**

Topics in sports media related to issues in traditional and new media as they effect sports and entertainment advertising and public relations. The equivalent of three lecture hours a week for one semester. Advertising 378S and Public Relations 378S may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

**Topic 1: Advertising and Public Relations for Sports.** Same as Public Relations 378S (Topic 1). Three lecture hours a week for one semester. Advertising 378S (Topic 1) and Public Relations 378S (Topic 1) may not both be counted.

**Topic 2: Legal Aspects of Sports and Media.** Same as Public Relations 378S (Topic 2). Three lecture hours a week for one semester. Advertising 378S (Topic 2) and Public Relations 378S (Topic 2) may not both be counted.

**Topic 3: Return on Investment of Sports Media.** Same as Public Relations 378S (Topic 3). Three lecture hours a week for one semester. Advertising 378S (Topic 3) and Public Relations 378S (Topic 3) may not both be counted.

**Topic 4: Analysis of Sports and Entertainment Audiences.** Same as Public Relations 378S (Topic 4). Three lecture hours a week for one semester. Advertising 378S (Topic 4) and Public Relations 378S (Topic 4) may not both be counted.

**Topic 5: Ethics and Social Issues in Sports Branding.** Same as Public Relations 378S (Topic 5). Three lecture hours a week for one semester. Advertising 378S (Topic 5) and Public Relations 378S (Topic 5) may not both be counted.

**Topic 6: Sports Audiences and Nontraditional Media.** Same as Public Relations 378S (Topic 6). Three lecture hours a week for one semester. Advertising 378S (Topic 6) and Public Relations 378S (Topic 6) may not both be counted.

**Topic 7: Contributions of Sports and Entertainment to Education and Health.** Same as Public Relations 378S (Topic 7). Three lecture hours a week for one semester. Advertising 378S (Topic 7) and Public Relations 378S (Topic 7) may not both be counted.

**Topic 8: College Sports Media.** Same as Public Relations 378S (Topic 8). An examination of the history of college sports media, with an emphasis on the evolution of sports coverage from NCAA-controlled limited broadcasting of football and basketball, to present day intercollegiate athletics coverage available via multiple outlets.

**Topic 9: Sports Contract Negotiation Techniques.** Same as Public Relations 378S (Topic 9). Strategies and techniques for successfully negotiating contracts, with a special emphasis on the negotiation of sports contracts.

**Topic 10: Leadership and Administration in Sports Organizations.** Same as Public Relations 378S (Topic 10). Designed to develop marketing skills related to events, programs, products, and facilities in the sports management field.

**Topic 11: Sports and Social Media.** Same as Public Relations 378S (Topic 11). Designed to provide an understanding of and experience with the components and best practices of social media, marketing,

and communications as they relate to sports entities and the sports field as a whole.

**Topic 12: Sports Audiences.** Same as Public Relations 378S (Topic 12). An exploration of marketing innovations in sports to attract audiences, and the use of sports media by advertisers, sponsors, and other entities to target various customer groups.

**Topic 13: Business of Sports Television.** Same as Public Relations 378S (Topic 13). Only one of the following may be counted: Advertising 378 (Topic: Business of Sports Television), 378S (Topic: Business of Sports Television), 378S (Topic 13), Public Relations 378 (Topic: Business of Sports Television), 378S (Topic: Business of Sports Television), 378S (Topic 13).

### **ADV 379. Integrated Communication for Sports and Entertainment.**

Three lecture hours a week for one semester.

### **ADV 379H. Honors Tutorial Course.**

Conference course of intensive study, planned by the Advertising Honors Committee; research and the writing of a substantial paper on a special advertising topic. Supervised individual special studies. Prerequisite: Admission to the departmental honors program and consent of the undergraduate adviser.

### **ADV 179J, 279J, 379J, 479J. Advertising Problems.**

Individual instruction. Some topics may require additional laboratory hours. May be repeated for credit when the topics vary. Prerequisite: Written consent of instructor received prior to registering.

**Topic 1: Supervised Individual Special Studies.** Supervised individual special studies for which separate courses are not available.

**Topic 2: Supervised Individual Creative Studies.** Supervised individual creative studies for which separate courses are not available. Additional laboratory hours to be arranged.

**Topic 3: Supervised Individual Media Studies.** Supervised individual media studies for which separate courses are not available. Additional prerequisite: Advertising 345J with a grade of at least C-.

## **Graduate Courses**

### **ADV 381. Consumer Behavior.**

An interdisciplinary study using behavioral science concepts to explain consumer motivation, information processing, and consumption behavior; sociological and psychological factors affecting the consumption process and the marketing/advertising of goods and services. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Advertising 380J.

### **ADV 382. Quantitative and Qualitative Research.**

An introduction to advertising research designs and procedures. Three lecture hours a week for one semester. Advertising 380J (Topic: Quantitav and Qualitav Rsch) and 382 may not both be counted. Prerequisite: Graduate standing.

### **ADV 382J. Theories of Persuasive Communication and Consumer Decision Making.**

Communication and behavioral science theories as they relate to contemporary advertising practices. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ADV 483. Supervised Individual Creative Studies.**

Conference course. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and written consent of instructor received prior to registering.

- Topic 1: Art Directors' Seminar.
- Topic 2: Portfolio I.
- Topic 3: Portfolio II.
- Topic 4: Portfolio III.
- Topic 5: Portfolio IV.

**ADV 385. International Advertising.**

Study of the managerial, economic, legal, and cultural aspects of multinational advertising. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

- Topic 1: Strategic Advertising Principles.
- Topic 2: Account Planning.
- Topic 3: Media Management.
- Topic 4: Strategic Advertising Management.
- Topic 5: Multicultural Advertising: Theory and Research.

**ADV 386. Experimental Storytelling.**

Working with real-world clients, examine design thinking and human-computer interaction techniques while ideating, synthesizing concepts, creating user experiences, and developing a proof of concept (PoC) exemplary towards becoming an experience designer. Three lecture hours a week for one semester. Advertising 386 and 391K (Topic: Experimental Storytelling) may not both be counted. Prerequisite: Graduate standing.

**ADV 387. Creative Strategies.**

The process of developing creative concepts and their effective execution. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**ADV 388C. Research Problems: Doctoral Examination Preparation.**

Research and reading in preparation for doctoral examinations. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of graduate adviser.

**ADV 388J. Principles of Advertising Management.**

The study of planning, organization, and control of the advertising functions. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Advertising 370J or the equivalent, and consent of the graduate adviser.

**ADV 388K. Integrated Communications Management.**

The application of management principles to the solution of integrated communications management problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**ADV 189, 389, 489. Problems in Specialized Fields of Advertising.**

Research project chosen from the area of the student's major interest; a written report or creative project is required. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Students who take Advertising 189 must register for a topic of 189 for three consecutive semesters. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, consent of instructor, and written consent of the graduate adviser received prior to registering.

- Topic 1: Computer Graphics--Creative Sequence.

**ADV 391K. Seminar in Advertising.**

Survey and analysis of current advertising issues and practices. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

- Topic 1: Interactive Advertising.
- Topic 2: Advanced Account Planning.
- Topic 4: Audiences for Nonprofit Organizations.
- Topic 5: Integrated Communication for Sports.
- Topic 6: Media Research.
- Topic 7: Public Relations Theory.
- Topic 8: Quantitative Models in Advertising.

**Topic 10: Business to Business Integrated Communication Management.** Cases and problems dealing with the management of business to business integrated communication, advertising and promotional programs; media and creative strategies; consumer, retail, industrial, and public service applications.

**ADV 391L. Invisible Global Market.**

Same as Latin American Studies 383 and Public Affairs 388N. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 391L, Latin American Studies 383, Marketing 382 (Topic: Invisible Global Market), 382 (Topic: Invisible Global Marketing), 282, 382 (Topic 34), Middle Eastern Studies 382M, Public Affairs 388N. Offered on the letter-grade basis only.

**ADV 392. Issues in Advertising Theory and Research.**

Examination of important current areas in advertising research and theory. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Admission to a doctoral program and consent of the graduate adviser.

- Topic 2: Advanced Advertising Theories I.
- Topic 3: Advertising Research I.
- Topic 4: Advanced Advertising Theories II.
- Topic 5: Advertising Research II.

**ADV 395. Advertising Internship.**

Practical work experience in advertising sales, creative management, and research with advertisers, agencies, media, or auxiliary services. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; Advertising 380, 385, and 387 with a grade of at least B in each; and a University grade point average of at least 3.00.

**ADV 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in advertising and written consent of the supervising faculty member and the graduate adviser received prior to registering; for 698B, Advertising 698A and written consent of the supervising faculty member and the graduate adviser received prior to registering.

**ADV 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in advertising and written consent of the supervising faculty member and the graduate adviser received prior to registering.

**ADV 398T. Student Teaching in Advertising.**

Restricted to doctoral students. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**ADV 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree. Written consent of the graduate adviser received prior to registering.

**Professional Courses**

# Aerospace Engineering Courses

## Aerospace Engineering: ASE

### Lower-Division Courses

#### **ASE 301. Introduction to Computer Programming.**

Same as Computational Engineering 301. Basic computer programming concepts applied to engineering computations. Development of structured solutions to engineering and mathematical problems and an understanding of coding practices. Programming in MATLAB and C++. Three lecture hours a week for one semester. Aerospace Engineering 301 and Computational Engineering 301 may not both be counted.

#### **ASE 102. Introduction to Aerospace Engineering.**

Restricted to first year students. Introduction to aerospace engineering, including problem solving and study skills. Examines opportunities and responsibilities of careers in aerospace engineering. One lecture hour a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only.

#### **ASE 118. Student Leadership Seminar.**

Principles of human development, strategic learning, and teaching. Small-group seminar involving reading, discussion, and written reports. One lecture hour a week for one semester. Offered on the pass/fail basis only. Prerequisite: Consent of the engineering undergraduate adviser.

#### **ASE 119K. Low-Speed Aerodynamics Laboratory.**

Restricted to students in the aerospace engineering major sequence. Wind tunnel and water channel experiments at subsonic speeds; use of instrumentation and written reports. One lecture hour and three laboratory hours a week for one semester. Aerospace Engineering 119K and 120K may not both be counted.

#### **ASE 119L. High-Speed Aerodynamics Laboratory.**

Restricted to students in the aerospace engineering major sequence. Experiments using a variable-Mach number supersonic wind tunnel and ballistics range, and an investigation of aerodynamics of blunt bodies and simple airfoils in supersonic flow. One lecture hour and three laboratory hours a week for one semester. Aerospace Engineering 119L and 162M may not both be counted.

#### **ASE 119M. Spacecraft Systems Laboratory.**

Restricted to students in the aerospace engineering major sequence. Overview of spacecraft subsystems, mission design tools, numerical techniques, mission planning references, mission constraints, and mission design projects. Includes written reports. One lecture hour and one and one-half laboratory hours a week for one semester. Aerospace Engineering 119M and 166M may not both be counted.

#### **ASE 119N. Flight Dynamics Laboratory.**

Restricted to students in the aerospace engineering major sequence. Introduction to flight testing; instrumentation and methodology; performance testing. Computer modeling and dynamic simulation of aircraft motion; aircraft sizing. Written reports. One lecture hour and three laboratory hours a week for one semester.

#### **ASE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Aerospace Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's International Engineering Education Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Aerospace Engineering and Engineering Mechanics. University credit is awarded for work in an exchange program; it may be

counted as coursework taken in residence. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### Upper-Division Courses

#### **ASE 320. Low-Speed Aerodynamics.**

Fundamental concepts, fluid statics; integral and differential analysis; detailed analysis of inviscid, incompressible flows; aerodynamics of airfoils and wings. Three lecture hours a week for one semester. Prerequisite: Mathematics 427L, and Mechanical Engineering 310T or 320, with a grade of at least C- in each.

#### **ASE 120K. Low-Speed Aerodynamics Laboratory.**

Wind tunnel and water channel experiments at subsonic speeds; use of instrumentation and written reports. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Aerospace Engineering 320; Aerospace Engineering 333T (or another approved engineering communication course) with a grade of at least C-; and Mathematics 427L with a grade of at least C-.

#### **ASE 321K. Computational Methods for Structural Analysis.**

Same as Computational Engineering 321K. Matrix structural analysis of systems that can be idealized as being comprised of axial bar elements, beam elements, and frame elements. Notion of element-by-element assembly of the governing system of algebraic equations. A systematic introduction to (and use of) the fundamental idea of a weak statement of a boundary value problem, particularly as concerns the numerical treatment/approximation of such problems. Interpretation of the weak-statement in terms of the principle of virtual work. Galerkin's method as applied to structural analysis. An introduction to the classical Galerkin finite element method with application to structures and plane elasticity. Energy principles and their utility in solving problems in solid mechanics, as well as their connection to the finite element method. Three lecture hours a week for one semester, with discussion hours to be arranged. Aerospace Engineering 321K and Computational Engineering 321K may not both be counted. Prerequisite: Computational Engineering 311K (or Aerospace Engineering 211K or Computational Engineering 211K); and Engineering Mechanics 319 with a grade of at least C- in each.

#### **ASE 324L. Aerospace Materials Laboratory.**

Study of the deformation and fracture behavior of materials used in aerospace vehicles. Structure-property relations, methods of characterizing material behavior, use of properties in the design process. Case histories. Written reports. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Engineering Mechanics 319 with a grade of at least C-.

#### **ASE 325L. Cooperative Engineering.**

This course covers the work period of aerospace engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Aerospace Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Aerospace Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Aerospace Engineering 325LY and appointment for a full-time cooperative work tour.

#### **ASE 225M. Cooperative Engineering.**

This course covers the work period of aerospace engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Aerospace Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the

Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Aerospace Engineering 225MA and appointment for a full-time cooperative work tour.

### **ASE 125N. Cooperative Engineering.**

This course covers the work period of aerospace engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Aerospace Engineering 325LZ or 225MB, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

### **ASE 128. Aerospace Engineering Projects Laboratory.**

Directed work on an organized student project in aerospace engineering or engineering mechanics. The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: At least fifteen semester hours of coursework, a University grade point average of at least 2.50, preparation of a laboratory participation log and written report, and approval by both the faculty member directing the student project and the undergraduate adviser.

### **ASE 330M. Linear System Analysis.**

Explore the fundamentals of signals and systems; mathematical modeling of mechanical systems; transfer function; impulse response; Laplace transforms; response of linear, time-invariant systems; frequency response methods; time-domain analysis; introductory concepts for feedback control systems; multivariate linear dynamical systems; eigenvalues and eigenvectors; matrix exponentials. An introduction to fundamental elements of the theory of systems and signals and exposure to necessary concepts and tools required to perform modeling and analysis of linear dynamical systems. Demonstrate the theory through several simulation examples using MATLAB and Simulink relevant to applications of modern aerospace engineering systems. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 311M, and Mathematics 427J or 427K with a grade of at least C- in each; and credit with a grade of at least C- or registration for Computational Engineering 311K (or Aerospace Engineering 211K or Computational Engineering 211K).

### **ASE 333T. Engineering Communication.**

Restricted to aerospace engineering and computational engineering majors. Technical communication skills for engineers: written and oral reports; individual and collaborative composition; online and traditional research; editing techniques; document design for electronic and hard copy. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 333T, Biomedical Engineering 333T, Communication 333T, Civil Engineering 333T, Chemical Engineering 333T, Electrical Engineering 333T, Engineering Studies 333T, Mechanical Engineering 333T, Petroleum and Geosystems Engineering 333T. Prerequisite: Rhetoric and Writing 306 or the equivalent with a grade of at least C-.

### **ASE 339. Advanced Strength of Materials.**

Same as Engineering Mechanics 339. Curved beams, shear deformation, beam columns, beams on elastic foundations; inelastic behavior of members; elementary plate bending. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 319 with a grade of at least C-.

### **ASE 346. Viscous Fluid Flow.**

Navier-Stokes equations, laminar and turbulent boundary layers, transition, effects of pressure gradients, heat transfer, and

compressibility. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 320 with a grade of at least C-.

### **ASE 355. Aeroelasticity.**

Static aeroelastic phenomena; wing torsional divergence, control reversal, effect of wing sweep, flexibility effects on aircraft stability and control, and design implications; dynamic aeroelasticity; and galloping of transmission lines, flutter, and unsteady aerodynamics. Includes an introduction to experimental aeroelasticity. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 320 and 365 with a grade of at least C- in each.

### **ASE 357. Mechanics of Composite Materials.**

Anisotropic constitutive relationships, lamination theory, failure theories, micromechanical behavior of laminates; laminated composite plates—bending, vibration, and buckling; composite fabrication, sandwich and other composite lightweight structures. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 319 with a grade of at least C-.

### **ASE 361K. Aircraft Design I.**

Systems engineering based approach to conceptual design and analysis of an aircraft system to meet top-level mission requirements. Selected hands-on lab projects included. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 320 with a grade of at least C-, and credit with a grade of at least C- or registration for Aerospace Engineering 367K.

### **ASE 361L. Aircraft Design II.**

Systems Engineering based aircraft preliminary and detail design, build, flight test, and demonstration. The overall approach is applicable to all aircraft but the specific project is a small unmanned air system designed to meet defined mission requirements. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 119K or 120K, and 361K with a grade of at least C- in each.

### **ASE 362K. Compressible Flow.**

Shock and expansion waves, quasi-one-dimensional flow, converging-diverging nozzles, diffusers, linearized flow, and compressibility effects on aerodynamics of airfoils and bodies. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 320 with a grade of at least C-.

### **ASE 162M. High-Speed Aerodynamics Laboratory.**

Experiments using a variable-Mach number supersonic wind tunnel and shock tube. Aerodynamics of wedges, cones, spheres and diamond-shaped airfoils in supersonic flow. One-dimensional unsteady shock motion. High-speed flow measurement techniques. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 362K with a grade of at least C-.

### **ASE 363L. History of Space Flight.**

History and principles of space flight from early Chinese rocket experiments to Apollo 17 and the Space Shuttle; technological benefits from the space program and future space projects, including commercial space activities and those related to national security. Three lecture hours a week for one semester. May not be counted as an aerospace engineering course for the Bachelor of Science in Aerospace Engineering; may not be counted as a technical elective, a technical area course, or an engineering elective for any engineering degree. Prerequisite: Upper-division standing or consent of instructor.

### **ASE 364. Applied Aerodynamics.**

Detailed analysis of aerodynamics of compressible and incompressible flows about wings and airfoils; wing and airfoil parameters and force

and moment coefficients; and thin-airfoil theory, lifting-line theory, panel methods, high-lift devices, delta wings, transonic flows, and supersonic flows over wings. Three lecture hours a week for one semester. Aerospace Engineering 364 and 379L (Topic: Airfoil and Wing Design Theory) may not both be counted. Prerequisite: Aerospace Engineering 362K with a grade of at least C-.

#### **ASE 365. Structural Dynamics.**

Analysis of discrete and continuous vibrating systems; deriving equations of motion; determining response; and natural frequencies and modes of vibration. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 319 with a grade of at least C-.

#### **ASE 366K. Spacecraft Dynamics.**

Examine Newton's gravity law, Kepler's laws, basic orbit propagation, orbit properties, orbital elements, coordinate systems and transformations, radar observations, ground tracks, orbit maneuvers, and trajectory design principles. Three lecture hours a week for one semester. Prerequisite: Computational Engineering 311K (or Aerospace Engineering 211K or Computational Engineering 211K), Engineering Mechanics 311M, and Mathematics 427J or 427K with a grade of at least C- in each.

#### **ASE 366L. Applied Orbital Mechanics.**

Selected subjects in satellite motion and satellite applications, including communication and navigation satellites, orbit selection/design for satellite applications, orbital coordinate systems, time, major perturbing forces, rendezvous and intercept, and interplanetary trajectories. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 366K with a grade of at least C-.

#### **ASE 166M. Spacecraft Systems Laboratory.**

Overview of spacecraft subsystems, mission design program library, numerical techniques, mission planning references, mission constraints, and mission design projects. Includes written reports. One and one-half lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 366K with a grade of at least C-, and credit with a grade of at least C- or registration for Aerospace Engineering 374K.

#### **ASE 367K. Flight Dynamics.**

Equations of motion for rigid aircraft; aircraft performance, weight and balance, static stability and control, and dynamic stability; design implications. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 320 with a grade of at least C-.

#### **ASE 370C. Feedback Control Systems.**

Fundamentals of linear control analysis and design for single-input, single-output systems; stability and performance measures; Routh Hurwitz analysis; root locus methods; frequency response (Bode and Nyquist); introduction to full-state feedback. Three lecture hours a week for one semester. Aerospace Engineering 370C and 370L may not both be counted. Prerequisite: Aerospace Engineering 330M with a grade of at least C-.

#### **ASE 170P. Controls Laboratory.**

Three laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 370L with a grade of at least C-.

#### **ASE 372K. Attitude Dynamics.**

Examine attitude representations, rotational kinematics, rigid-body dynamics, and torque-free motion. Explore satellite's sensors and actuators, attitude determination algorithms, and passive and active attitude control systems. Three lecture hours a week for one semester.

Prerequisite: Aerospace Engineering 330M and 366K with a grade of at least C- in each.

#### **ASE 372L. Satellite Applications.**

Classical and modern orbit determination, remote sensors and their outputs, pattern recognition, image enhancement, satellite data analysis projects. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 366K with a grade of at least C-.

#### **ASE 372N. Satellite-Based Navigation.**

Satellite-based navigation systems, with focus on the Global Positioning System (GPS), ground and space segments, receiver location estimation, astrodynamics, satellite signal coordinate/time systems, differential techniques, GPS data analysis. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 366K with a grade of at least C-.

#### **ASE 374K. Space Systems Engineering Design.**

Introduction to systems engineering: the systems engineering process, requirements, design fundamentals, trade studies, cost and risk analyses, integration, technical reviews, case studies, and ethics. Includes written reports. Three lecture hours a week for one semester. Aerospace Engineering 374K and Computational Engineering 373 may not both be counted. Prerequisite: Aerospace Engineering 366K with a grade of at least C-.

#### **ASE 374L. Spacecraft/Mission Design.**

Spacecraft systems characteristics, mission requirements, sensors, and consumables analyses; and mission phases, request for proposal, problem definition, ideation, proposal preparation, conceptual design review, preliminary design development and review, and design report preparation. Includes written reports. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 166M and 374K with a grade of at least C- in each.

#### **ASE 375. Electromechanical Systems.**

Restricted to aerospace engineering and computational engineering majors. Subjects include basic electronic circuits, operational amplifiers, concepts of impedance and feedback, sensors to measure temperature, displacement, strain, force and acceleration, impulse testing, shake testing, and triggered data acquisition. These concepts will be implemented via experiments that illustrate interesting phenomena in solids and structures. Two lecture hours and three laboratory hours a week for one semester. Aerospace Engineering 375 and Mechanical Engineering 340 may not both be counted. Prerequisite: Engineering Mechanics 319 and Physics 303L with a grade of at least C- in each.

#### **ASE 376C. Rocket Engineering Practicum I.**

An introduction to rocket engineering. Explore a high-level overview of the principles, systems, and design methodologies required to design a vehicle capable of going to space. Participate in project-based work embedded within actual systems of the Texas Rocket Engineering Laboratory. Three lecture hours a week for one semester. Aerospace 376C and 379L (Topic: Rocket Engineering Practicum) may not both be counted.

#### **ASE 376D. Rocket Engineering Practicum II.**

Explore the industry-relevant design and production environment encountered when working on a rocket subsystem in depth. Participate in project work embedded within systems of the Texas Rocket Engineering Laboratory. Three lecture hours a week for one semester. Aerospace Engineering 376D and 379L (Topic: Rocket Engr Practicum II) may not both be counted. Prerequisite: Aerospace Engineering 376C with a grade of at least C-.

### **ASE 376K. Propulsion.**

Review of control volume analysis and quasi-one-dimensional compressible flow. Simple propeller theory. Analysis and design of rocket nozzles and air-breathing engines, including performance and cycle analysis; flow in nozzles, diffusers, compressor, and turbine stages; combustion chamber processes and propellants. Includes an introduction to chemical rocket propulsion. Three lecture hours a week for one semester. Prerequisite: Aerospace Engineering 362K with a grade of at least C-.

### **ASE 679H. Undergraduate Honors Thesis.**

Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a Bachelor of Science in Engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Aerospace Engineering 679HA and enrollment in the Engineering Honors Program.

### **ASE 179K, 279K, 379K. Research in Aerospace Engineering.**

Restricted to aerospace engineering majors. Directed study or research in a selected area of aerospace engineering. One, two, or three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, a University grade point average of at least 3.00, selection of project, and consent of the faculty member directing project and the undergraduate adviser.

### **ASE 379L. Studies in Aerospace Engineering.**

Current topics in aerospace engineering. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Selected Topics in Fluid Mechanics.**

**Topic 2: Selected Topics in Structural Mechanics.**

**Topic 3: Selected Topics in Flight Mechanics.**

**Topic 4: Selected Topics in Orbital Mechanics.**

**Topic 9: Selected Topics in Controls.**

### **ASE 179R. Research Seminar.**

Designed for students who plan to pursue a substantial research project or undergraduate honors thesis in aerospace engineering. Department faculty present information and lead discussions about their current research projects so that students can learn about available research opportunities. One lecture hour a week for one semester. May not be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Completion of at least twenty-four semester hours of coursework and a University grade point average of at least 3.50.

### **ASE 179S, 279S, 379S, 479S, 579S, 679S, 779S, 879S, 979S. Topics in Aerospace Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's International Engineering Education Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Aerospace Engineering and Engineering Mechanics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **ASE 479W. Aerial Robotics.**

Comprehensive introduction to robotic aircraft. Examine rotorcraft dynamics modeling, feedback control, sensing, state estimation, path planning, machine vision, and decision-making under uncertainty. Design an automation protocol, written in C++, that commands a squad of quadcopters competing in a game. Three lecture hours and three laboratory hours a week for one semester. Aerospace Engineering 379L (Topic: Aerial Robotics) and 479W may not both be counted. Prerequisite: Aerospace Engineering 330M with a grade of at least C-.

## **Graduate Courses**

### **ASE 380P. Mathematical Analysis for Aerospace Engineers.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Analytical Methods I.** Introduction to modern mathematics, real analysis of functions of one variable, linear algebra, elements of real analysis of functions of many variables, calculus of variations. Aerospace Engineering 380P (Topic 1) and Engineering Mechanics 386K may not both be counted.

**Topic 2: Analytical Methods II.** Elements of complex analysis, Fourier and Laplace transforms, ordinary and partial differential equations, perturbation methods. Only one of the following may be counted: Aerospace Engineering 380P (Topic 2), Computational Science, Engineering, and Mathematics 386L, Engineering Mechanics 386L.

### **ASE 381P. System Theory.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Linear Systems Analysis.** Linear dynamical systems; controllability and observability; stability; realization theory; state-feedback and observers.

**Topic 2: Multivariable Control Systems.** Multivariable feedback systems; factorizations and controller parameterization; limitations and trade-offs of feedback; robust stability and performance; robust H<sub>2</sub> and H-∞ control methods. Additional prerequisite: Aerospace Engineering 381P (Topic 1) or the equivalent.

**Topic 3: Optimal Control Theory.** Unconstrained and constrained finite-dimensional optimization, introduction to calculus of variations and optimal control, necessary and sufficient conditions for optimality, Pontryagin's Maximum Principle, minimum-time control, linear quadratic optimal control theory, introduction to dynamic programming, Hamilton-Jacobi-Bellman equation.

**Topic 4: Numerical Methods in Optimization.** Numerical methods for solving parameter optimization, suboptimal control, and optimal control problems.

**Topic 6: Statistical Estimation Theory.** Modeling static and dynamic systems, linear and nonlinear estimation, Bayesian estimation, batch least squares, Kalman filtering, square-root and information filtering, introduction to advanced estimation methods.

**Topic 7: Advanced Topics in Estimation Theory.** Estimation in the presence of unmodeled accelerations; nonlinear estimators; continuous estimation methods. Additional prerequisite: Aerospace Engineering 381P (Topic 6).

**Topic 11: Nonlinear Dynamics and Control.** Analysis and synthesis of nonlinear control systems. Stability theory, Center manifold analysis, feedback linearization, backstepping, time-scale separations, nonlinear observers, Aeromechanical system applications. Aerospace Engineering 381P (Topic 11) and 396 (Topic: Nonlinear Dynamics and Control) may not both be counted. Additional prerequisite: Aerospace Engineering 381P (Topic 1) or the equivalent, and consent of instructor.

**Topic 13: Decision and Control of Human-Centered Robots.** Oriented towards graduate students in control and robotics who are interested in end-to-end performance of real-world human-centered robotic systems. Control theory for robotics; socio cognitive modeling of human activity; behavior intervention via optimal control; Kinodynamic motion planning; temporal logics and their application to human-centered robots; whole-Body Dynamic Locomotion Controllers; intelligent Collision Management for human-centered robots. Explores theory and application from state-of-the-art papers from venues such as IEEE CSS American Control Conference, Robotics Science and Systems, The International Workshop on the Algorithmic Foundation of Robotics, Dynamic Walking, and IEEE-RAS International Conference on Humanoid Robots. Aerospace Engineering 381P (Topic 13) and Mechanical Engineering 396D may not both be counted. Additional prerequisite: Consent of graduate adviser.

**Topic 14: System ID and Adaptive Control.** System identification, persistence of excitation, model reference adaptive control, projection operators, immersion and invariance techniques, applications to aeromechanical systems. Aerospace Engineering 381P (Topic 14) and 396 (Topic: System ID and Adaptive Control) may not both be counted. Additional prerequisite: Aerospace Engineering 381P (Topic 1) or the equivalent.

### **ASE 382Q. Fluid Mechanics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Foundations of Fluid Mechanics.** Fundamental equations; constitutive equations for Newtonian fluids; inviscid, incompressible potential flow; viscous flow including exact solutions and boundary layer theory; compressible flow.

**Topic 7: Advanced Problems in Compressible Flow.** Physics and modeling of compressible fluids; types and structure of shock waves; heat conduction and secondary viscosity effects; exact nonlinear flow models.

**Topic 8: Lagrangian Methods in Computational Fluid Dynamics.** Particle-based methods of computational fluid dynamics: molecular dynamics, direct simulation Monte Carlo, cellular automata, lattice Boltzmann, particle in cell, point vortex, immersed boundary.

**Topic 9: Turbulent Mixing.** Fundamentals of turbulent scalar mixing relevant to turbulent combustion. Includes governing equations, mass diffusion, scalar transport, kinematics, chaotic advection, vortex dynamics, small-scale structure of vorticity and dissipative fields, scalar dissipation rate, scaling laws for canonical flows, heat release effects, and turbulent jet flame structure.

**Topic 10: Plasmas and Reactive Flows.** Fundamental description of plasmas and reactive flows. Includes derivation of common governing transport equations for a broad class of electrically conducting and nonconducting reactive gases, and electromagnetic field interactions with gases, gas-phase and surface kinetics, transport properties, and applications.

**Topic 11: Foundations of Computational Fluid Dynamics.** Higher-order numerical methods for solving partial differential equations and ordinary differential equations. Focus on the numerical computation of fluid flows, with a variety of scientific applications. Aerospace Engineering 382Q (Topic 11) and Aerospace Engineering 396 (Topic: Foundations of Computational Fluid Dynamics) may not both be counted.

### **ASE 382R. Aerodynamics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 3: Hypersonic Aerodynamics.** Characteristics and assumptions of hypersonic flow; hypersonic similitude; Newtonian theory; constant density solutions.

**Topic 5: Advanced Computational Methods.** Development and implementation of numerical methods for solution of transport equations; computational grid generation; applications to fluid flows, including shock waves.

**Topic 6: Molecular Gas Dynamics.** Same as Mechanical Engineering 381Q (Topic 4). Kinetic theory, chemical thermodynamics, statistical mechanics. Applications: equilibrium gas properties, chemical kinetics, interaction of matter with radiation, rarefied gas dynamics. Additional prerequisite: Consent of instructor

**Topic 7: Optical Diagnostics for Gas Flows.** Fundamentals of nonintrusive flowfield diagnostics for aerodynamics and combustion. Basics of lasers and optical detectors; interferometric methods; Rayleigh, Raman, and Mie scattering; absorption spectroscopy; laser-induced fluorescence.

### **ASE 384P. Structural and Solid Mechanics.**

Three lecture hours or two lecture hours and three laboratory hours a week for one semester, depending on the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Solid Mechanics I.** Same as Engineering Mechanics 388. Mathematical description of stress, deformation, and constitutive equations of solid mechanics; boundary value problems of elasticity. Three lecture hours a week for one semester.

**Topic 2: Solid Mechanics II.** Same as Engineering Mechanics 388L. Continuation of Engineering Mechanics 388. Additional topics in elasticity, plasticity, viscoelasticity, variational methods, and other areas of solid mechanics. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Engineering Mechanics 388 or Aerospace Engineering 384P (Topic 1), and consent of instructor.

**Topic 3: Structural Dynamics.** Same as Engineering Mechanics 384L. Free and forced vibration of single-degree-of-freedom, multiple-degree-of-freedom, and continuous systems. Lagrange's equations and Hamilton's principle; discretization of continuous systems; numerical methods for response and algebraic eigenvalue problems. Three lecture hours a week for one semester.

**Topic 4: Finite Element Methods.** Same as Computational Science, Engineering, and Mathematics 393F and Engineering Mechanics 394F. Derivation and implementation of the finite element method; basic coding techniques; application to problems of stress and diffusion. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 384P (Topic 4), Computational Science, Engineering, and Mathematics 393F, Engineering Mechanics 394F. Additional prerequisite: Graduate standing and consent of instructor.

**Topic 6: Advanced Structural Dynamics.** Analysis of complex flexible systems; discretization of complex structures by the finite element method; advanced computational methods for large finite element models. Three lecture hours a week for one semester. Additional prerequisite: Aerospace Engineering 384P (Topic 3) or Engineering Mechanics 384L or the equivalent.

**Topic 8: Selected Topics in Aeroelasticity.** Classical and contemporary topics in aeroelasticity; general introduction to aeroelastic phenomena, including flutter, divergence, control reversal, and flexibility effects on stability and control; aeroelastic tailoring; active control concepts; unsteady aerodynamic theories for lifting surfaces and bodies; aeroelastic system identification, including nonlinear systems (theory and laboratory applications). Three lecture hours a week for one semester.

**Topic 11: Mechanics of Composite Materials.** Constitutive equations; micromechanical and macromechanical behavior of lamina; strength and stiffness in tension and compression, theory of laminated plates; strength of laminates; delamination. Three lecture hours a week for one semester.

### **ASE 387P. Flight Mechanics, Guidance, Navigation, and Control.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Mission Analysis and Design.** Mission design and mission constraints, launch windows; rendezvous analysis; orbital design interactions with thermal and structural analysis; design of a typical mission.

**Topic 6: Optimal Spacecraft Trajectories.** Optimal control of spacecraft; primer vector theory; impulsive maneuvers; finite burn high/low thrust maneuvers; solar sails; numerical methods; applications to contemporary trajectory problems using single or multiple spacecraft.

**Topic 7: Sensors and Actuators.** Students use LabVIEW to study aerospace devices such as inertial navigation systems, control-moment gyroscopes, optical navigation systems, torque coils and magnetometers, robots, and integrated satellites.

### **ASE 388P. Celestial Mechanics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Celestial Mechanics I.** N-body problem; three-body problem; restricted three-body problem; Jacobian integral; zero-velocity curves; equilibrium points; stability; linearized solutions; variational equations; periodic orbits; the two-body problem; variation of parameters; Lagrange's planetary equations; applications to near-earth and deep-space trajectories; numerical methods.

**Topic 3: Celestial Mechanics II.** Hamiltonian mechanics; dynamical systems; canonical transformations; invariant manifolds; Poincare surfaces of section; applications to restricted n-body problems; applications to sun-earth-moon or sun-planet-moon particle trajectory problems. Additional prerequisite: Aerospace Engineering 388P (Topic 2).

### **ASE 189, 289, 389, 489, 589, 689. Topics in Aerospace Engineering.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **ASE 389P. Satellite Applications.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Determination of Time.** Concepts of time; fundamental reference system; polar motion; practical methods in time determination and dissemination; historical and present-day time scales; atomic clocks; time transfer via satellite.

**Topic 2: Satellite Geodesy.** Explore theory of the gravitational potential, including its time-variations; spherical harmonics and other representations; space-based remote sensing of the geopotential and its gradients; mass flux variability and its applications.

**Topic 4: Methods in Orbit Determination.** Variational methods of the orbit determination, Orbit parameter estimation, satellite tracking techniques and observables, modern precision orbit determination.

Three lecture hours a week for one semester. Aerospace engineering 389P (Topic 4) and 396 (Topic: Orbit Determination) may not both be counted. Additional prerequisite: Aerospace Engineering 381P (Topic 6) or equivalent.

**Topic 7: Global Navigation Satellite System Signal Processing.** Comprehensive review of the theory and applications of the Global Positioning System (GPS), including the space segment, the control segment, the user segment, dilution of precision, GPS time, antispoofing, selected availability, differential/kinematic/dynamic techniques, field procedures, and GPS data collection and analysis. Applications of ground-based, aircraft-based, and satellite-based GPS receivers.

**Topic 8: Satellite Control Systems.** Spacecraft equations of motion; linearization and stability, classical control methods; digital and sampled data systems; multivariable control; attitude determination and control; momentum management; coupled modes; and case studies in satellite control.

**Topic 9: Synthetic Aperture Radar: Principles and Applications.** Synthetic Aperture Radar (SAR) imaging for Earth remote sensing, including image formation concepts and interpretation, radar interferometry processing and strategies, surface deformation, topographic mapping, and polarimetric applications.

**Topic 10: Fundamentals and Geophysical Application of Imaging Radar Systems.** Exploration of how radar images are formed and manipulated, as well as applications of the systems to problems such as measurement of the Earth crustal deformation. Focus on radar as a signal processing problem, radar image formation, polarimetric radars, and radar interferometry. Subjects include system design, scattering from natural surfaces, range and azimuth processing algorithms, and processor design. Additional prerequisite: Knowledge of Fourier Transform and at least one programming language (MATLAB, C or Fortran).

**Topic 11: Advanced Satellite Geodesy.** Examine kinematics and dynamics of displacement and Earth orientation. Investigate the determination of time and reference frames. Explore deformations of the Earth due to tides and mass loading. Study modern space geodetic applications. Additional prerequisite: Aerospace Engineering 389P (Topic 2).

### **ASE 397. Graduate Seminar.**

Student, faculty, and visitor presentations of current research topics. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **ASE 197R, 297R, 397R, 497R, 597R, 697R. Research in Aerospace Engineering.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **ASE 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in aerospace engineering and consent of the graduate adviser; for 698B, Aerospace Engineering 698A.

### **ASE 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in aerospace engineering and consent of the graduate adviser.

### **ASE 398T. Supervised Teaching in Aerospace Engineering.**

Teaching methods and objectives, criteria for evaluating teaching effectiveness, procedural rules and regulations, laboratory teaching. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and appointment as a teaching assistant.

### **ASE 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **African and African Diaspora Studies Courses**

## **African and African Diaspora Studies: AFR Lower-Division Courses**

### **AFR 301. African American Culture.**

Survey of African American culture in the United States from the 1600s to the present. Subjects include the circumstances and responses of blacks during North American enslavement, the Civil War, Reconstruction, the Great Migration, the Harlem Renaissance, the civil rights movement, and contemporary contexts. Three lecture hours a week for one semester.

### **AFR 302M. Numbering Race.**

Same as Statistics and Data Sciences 311C. Subjects include conceptualization and operationalization in quantitative measurement, the calculation and interpretation of descriptive statistics and statistical relationships, the application of statistical techniques to understand social phenomenon, and techniques for presenting results from quantitative analysis. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 302M, 317D (Topic: Numbering Race), Statistics and Data Sciences 310T (Topic: Numbering Race), 311C.

### **AFR 303. Introduction to Black Studies.**

Same as Anthropology 310D. Introduction to canonical black studies literature, themes, and theories. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 303, Anthropology 310D, 310L (Topic: Intro to African and African Diaspora Studies).

### **AFR 304. Introduction to the Study of Africa.**

Examines the complex histories, intellectual entanglements, and enduring hierarchies of Africa and African studies. Explores the evolution of African studies (both intellectually and institutionally), particularly in regards to the emergence of black studies. Three lecture hours a week for one semester. African and African Diaspora Studies 304 and 317C (Topic: Introduction to the Study of Africa) may not both be counted.

### **AFR 310. Introductory Topics in African and African Diaspora Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **AFR 310K. Introduction to Modern Africa.**

Same as History 310. Introduction to modern Africa, with focus on colonial and postcolonial development in political organization, economics, sociolinguistics, and literature. Three lecture hours a week for one semester.

### **AFR 310L. Introduction to Traditional Africa.**

Same as History 311K. Introductory, interdisciplinary course on the peoples and cultures of Africa. Three lecture hours a week for one semester.

### **AFR 311C. Performance, Feminism, and Social Change.**

Same as Women's and Gender Studies 301 (Topic 14). Exploration of the ways that engaged performance and feminist practice generate space for social change, including the basic principle that social transformation requires individual awareness, and that awareness necessitates a rigorous examination of race, gender, class, and sexuality. Only one of the following may be counted: African and African Diaspora Studies 311C, 317F (Topic: Performance, Feminism, and Social Change), Women's and Gender Studies 301 (Topic: Performance, Feminism, and Social Change), 301 (Topic 14).

### **AFR 315. Afro-Brazilian Diaspora.**

Same as Comparative Literature 305D and Latin American Studies 310C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315, 317E (Topic: Afro-Brazilian Diaspora), Comparative Literature 305 (Topic: Afro-Brazilian Diaspora), 305D, Latin American Studies 310 (Topic: Afro-Brazilian Diaspora), 310C.

### **AFR 315C. Introduction to East Austin Ethnography.**

Same as American Studies 315G and Anthropology 310E. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315C, 317D (Topic: Intro to East Austin Ethnography), American Studies 315 (Topic: Intro to East Austin Ethnography), 315G, Anthropology 310E, 310L (Topic: Intro to East Austin Ethnography).

### **AFR 315D. Performing Blackness.**

Same as American Studies 315M and Women's and Gender Studies 301 (Topic 8). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315D, 317F (Topic: Performing Blackness), American Studies 315 (Topic: Performing Blackness), 315M, Theatre and Dance 311T (Topic: Performing Blackness), Women's and Gender Studies 301 (Topic: Performing Blackness), 301 (Topic 8).

### **AFR 315E. The Revolution Will Be Dramatized.**

Same as American Studies 315K, Theatre and Dance 305S (Topic 2), and Women's and Gender Studies 301 (Topic 25). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315E, 317F (Topic: The Revolution Will Be Dramatized), American Studies 315 (Topic: The Revolution Will Be Dramatized), 315K, Theatre and Dance 305S (Topic 2), 311T (Topic: The Revolution Will Be Dramatized), Women's and Gender Studies 301 (Topic: The Revolution Will Be Dramatized), 301 (Topic 25).

### **AFR 315F. Toni Morrison and August Wilson.**

Same as American Studies 315L, Theatre and Dance 305S (Topic 3), and Women's and Gender Studies 301 (Topic 26). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315F, 317F (Topic: Toni Morrison and August Wilson), American Studies 315 (Topic: Toni Morrison and August Wilson), 315L, Theatre and Dance 305S (Topic 3), 311T (Topic: Toni Morrison and August Wilson), Women's and Gender Studies 301 (Topic: Toni Morrison and August Wilson), 301 (Topic 26).

### **AFR 315G. The United States and Africa.**

Same as History 317L (Topic 7). History of political, economic, and cultural relations between the United States and Africa from the early origins of the slave trade to the present. Three lecture hours a week for

one semester. Only one of the following may be counted: African and African Diaspora Studies 315G, 317C (Topic 1), History 317L (Topic 7).

#### **AFR 315I. Introduction to African American Women's History.**

Same as History 317L (Topic 20) and Women's and Gender Studies 301 (Topic 34). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 310 (Topic: Intro Afr Amer Women's Hist), 315I, History 317L (Topic: Intro Afr Amer Women's Hist), 317L (Topic 20), Women's and Gender Studies 301 (Topic 34).

#### **AFR 315J. Introduction to Ancient Egypt.**

Same as Classical Civilization 304C (Topic 3). A survey of the language, culture, and history of Egypt from the prehistorical period (13,000 BC) to the New Kingdom (1069 BC). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315J, 317C (Topic: Introduction to Ancient Egypt), 317C (Topic 5), Classical Civilization 304C (Topic 3).

#### **AFR 315K. Introduction to African American History.**

Same as History 317L (Topic 3). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315K, 317D (Topic 1), History 317L (Topic 3).

#### **AFR 315L. Anthropology of Race and Ethnicity: An Introduction.**

Same as American Studies 315D and Anthropology 310L (Topic 2). Examines the social importance of race and ethnicity both in America and around the world. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315L, 317D (Topic 2), American Studies 315D, Anthropology 310L (Topic 2).

#### **AFR 315M. Students of Color Leadership Issues.**

Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315M, 348C, 374D (Topic: Minority Student Leadership Issues), Educational Psychology 354M, 369K (Topic: Minority Student Leadership Issues), 369K (Topic 6).

#### **AFR 315N. The Black Power Movement.**

Same as History 317L (Topic 9). Examines the major organizations, key figures, and ideologies of the Black Power movement from the late 1960s and early 1970s. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315N, 317D (Topic 3), History 317L (Topic 9).

#### **AFR 315O. The Politics of Black Identity.**

Explore the idea that black progress is undermined by the activities and practices of certain black celebrities, leaders, and intellectuals whose attitudes, behavior, and politics differ from the black majority. Examine the history of labels that make reference to black identity, including "Uncle Tom," "Negro," "sellout," and various other denigrating names. Three lecture hours a week for one semester. African and African Diaspora Studies 315O and 317D (Topic 4) may not both be counted.

#### **AFR 315P. Introduction to Black Women's Studies.**

Same as Women's and Gender Studies 301 (Topic 16). Interdisciplinary examination of the complexities of black womanhood in America through an investigation of history, identity, popular culture, and black feminism/womanism, as well as social and political activism. Three lecture hours a week for one semester. Only one of the following can be counted: African and African Diaspora Studies 315P, 317D (Topic 5), Women's and Gender Studies 301 (Topic 16).

#### **AFR 315Q. Black Queer Art Worlds.**

Same as Anthropology 310L (Topic 6) and Women's and Gender Studies 301 (Topic 17). Exploration of over two decades of work produced by and about black queer subjects throughout the circum-Atlantic world. Provides an introduction to various artists and intellectuals of the black queer diaspora, as well as an examination of the viability of black queer aesthetic practice as a form of theorizing. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315Q, 317E (Topic 1), Anthropology 310L (Topic 6), Women's and Gender Studies 301 (Topic 17).

#### **AFR 315R. Diaspora: Race, Nation, and Resistance.**

Same as Anthropology 310L (Topic 7). Subjects include makings and meanings of diaspora, the differences and similarities between diaspora and related concepts such as race, nation, and cultural identity. Focuses on the making of the black Atlantic world, and comparative analysis between black diasporic life and that of other global dispersals, particularly among Asian and indigenous populations, and how resistance serves as a key link. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315R, 317E (Topic 2), Anthropology 310L (Topic 7).

#### **AFR 315S. Liberation in the African Diaspora.**

Same as Latin American Studies 310 (Topic 7). Examination of liberation and freedom struggles in the African diaspora, focusing on common intellectual, political, and social currents among the diaspora's various groups. Course focuses on three major themes: abolitionism, Pan-Africanism and national liberation, and hip hop. Particular emphasis will be on the ideas associated with these movements, and the major organizations and intellectual currents in all three. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315S, 317E (Topic 3), Latin American Studies 310 (Topic 7).

#### **AFR 315T. African American Literature and Culture.**

Same as English 314V (Topic 1). Explores texts, drawn from a variety of genres and periods, that indicate the range of African American experiences and how those experiences are influenced by issues such as class, ethnicity, gender, sexuality, and race. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315T, 317F (Topic 1), English 314V (Topic 1). Prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

#### **AFR 315U. Music of African Americans.**

Same as Music 307 (Topic 1). Introduction to the variety of modes of expression of African American culture in music and other related genres. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315U, 317F (Topic 2), Music 307 (Topic 1).

#### **AFR 315V. African Diaspora Archaeology.**

Same as Anthropology 310F. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310F, 310L (Topic: African Diaspora Archaeology), African and African Diaspora Studies 315V, 317E (Topic: African Diaspora Archaeology).

#### **AFR 315W. Race, Sex, and Tourism.**

Same as Anthropology 310R. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315W, 317E (Topic: Race, Sex, and Tourism), Anthropology 310L (Topic: Race, Sex, and Tourism), 310R.

**AFR 316C. Rights in Modern America.**

Same as American Studies 315J, History 317L (Topic 10), and Women's and Gender Studies 301 (Topic 32). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 316C, 317D (Topic: Rights in Modern America), American Studies 315 (Topic: Rights in Modern America), 315J, History 317L (Topic: Rights in Modern America), 317L (Topic 10), Women's and Gender Studies 301 (Topic: Rights in Modern America), 301 (Topic 32).

**AFR 316D. Race, Deportation, and Diaspora.**

Same as American Studies 315R, Asian American Studies 316D, and Latin American Studies 310F. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 310 (Topic: Race, Deportation, Diaspora), 316D, 317D (Topic: Race, Deportation, Diaspora), American Studies 315 (Topic: Race, Deportation, Diaspora), 315R, Asian American Studies 310 (Topic: Race, Deportation, Diaspora), 316D, Latin American Studies 310 (Topic: Race, Deportation, Diaspora), 310F.

**AFR 316K. Introduction to Religions of Latin America.**

Same as Latin American Studies 316L and Religious Studies 316L. Examine a survey of religious practice across Latin America and the Caribbean. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 316K, 317E (Topic: Intro Relig/Lat Amer/Carib), Latin American Studies 310 (Topic: Intro Relig/Lat Amer/Carib), 316L, Religious Studies 316K (Topic: Intro Relig/Lat Amer/Carib), 316L.

**AFR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in African and African Diaspora Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**Upper-Division Courses****AFR 320C. Power and Place: Making Texas History.**

Same as History 365G (Topic 21), Mexican American Studies 320C, and Race, Indigeneity, and Migration 320C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 320C, 370 (Topic: Power/Place: Making Tex His), History 365G (Topic: Power/Place: Making Tex His), 365G (Topic 21), Mexican American Studies 320C, Race, Indigeneity, and Migration 320C. Prerequisite: Upper-division standing.

**AFR 321. The African Diaspora in the Americas.**

Same as Anthropology 324L (Topic 9: The African Diaspora in the Americas). Black cultures and societies in the New World, and their African heritage. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**AFR 321K. African American Family.**

Same as Social Work 360K (Topic 2) and Women's and Gender Studies 340 (Topic 3). Overview of historical and contemporary issues facing African American families and children. Social service delivery to African American families and communities is emphasized. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 321K, Social Work 360K (Topic 2), Women's and Gender Studies 340 (Topic 3).

**AFR 321L. Sociology of Education.**

Same as Sociology 321L and Women's and Gender Studies 345 (Topic 23). Education as a societal institution, with emphasis on the United States educational system: how the system works; the effects of the system; recent changes. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 321L, Sociology 321L, Women's and Gender Studies 345 (Topic 23). Prerequisite: Upper-division standing.

**AFR 322. Introduction to African Prehistory.**

Same as Anthropology 324L (Topic 7: Introduction to African Prehistory). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**AFR 322D. Race and the Digital.**

Same as Sociology 322D and Women's and Gender Studies 322G. Review of theoretical developments in the sociological study of "race," including an examination of processes of racialization and cultural texts, in order to better understand the ways in which identities are socially produced. Attention will be placed on forms of popular culture, black cultural production, and political action to question how such practices are shaped by migrations within the African diaspora. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 322D, Sociology 322D, Women's and Gender Studies 322 (Topic 7), 322G. Prerequisite: Upper-division standing.

**AFR 324E. Racism and Antiracism.**

Same as Asian American Studies 330C. Examines the theories and definitions of racism across several fields: anthropology, sociology, psychology, cultural studies, postcolonial studies, and gender/sexuality studies. Also includes a section that focuses on anti-racist activism, particularly within people of color and immigrant communities. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 324E, Asian American Studies 330 (Topic 2), 330C. Prerequisite: Upper-division standing.

**AFR 326. Afro-Caribbean Politics and Culture in Central America.**

Same as Anthropology 324L (Topic 47), Latin American Studies 337N, and Women's and Gender Studies 340 (Topic 38). Exploration of black identity, political systems, and community activism in Central America and the Caribbean. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 326, 374E (Topic: Afro-Caribbean Politics and Culture in Central America), Anthropology 324L (Topic: Afro-Caribbean Politics and Culture in Central America), 324L (Topic: 47), Government 365N (Topic: Afro-Caribbean Politics and Culture in Central America), Latin American Studies 337M (Topic: Afro-Caribbean Politics and Culture in Central America), 337N, Women's and Gender Studies 340 (Topic: Afro-Caribbean Politics and Culture in Central America), 340 (Topic 38). Prerequisite: Upper-division standing.

**AFR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in African and African Diaspora Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for African and African Diaspora Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**AFR 330. Beyonce Feminism and Rihanna Womanism.**

Same as Women's and Gender Studies 335 (Topic 11). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic: Beyonce Feminism/Rihanna Womanism), 330, Women's and Gender Studies 335 (Topic: Beyonce Feminism/Rihanna Womanism), 335 (Topic 11). Prerequisite: Upper-division standing.

**AFR 330C. Fashion And Desire.**

Same as Women's and Gender Studies 340 (Topic 84). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330C, 372E (Topic: Fashion And Desire), Textiles and Apparel 365 (Topic: Fashion And Desire), Women's and Gender Studies 340 (Topic: Fashion And Desire), 340 (Topic 84). Prerequisite: Upper-division standing.

**AFR 330D. Literature of the Harlem Renaissance.**

Same as English 353R. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330D, 374F (Topic: Harlem Renaissance), English 353R, 376M (Topic: Harlem Renaissance). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**AFR 330E. Gwendolyn Brooks.**

Same as Theatre and Dance 357T (Topic 11) and Women's and Gender Studies 340 (Topic 72). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330E, 372E (Topic: Gwendolyn Brooks), English 349S (Topic: Gwendolyn Brooks), Theatre and Dance 357T (Topic: Gwendolyn Brooks), 357T (Topic 11), Women's and Gender Studies 340 (Topic: Gwendolyn Brooks), 340 (Topic 72). Prerequisite: Upper-division standing.

**AFR 330F. Writing for Black Performance.**

Same as American Studies 321Q, Creative Writing 325T, and Theatre and Dance 357T (Topic 5). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330F, 372E (Topic: Writing for Black Performance), American Studies 321 (Topic: Writing for Black Performance), 321Q, Creative Writing 325T, English 376M (Topic: Writing for Black Performance), Theatre and Dance 357T (Topic: Writing for Black Performance), 357T (Topic 5). Prerequisite: Upper-division standing.

**AFR 330I. The Arts of Hip Hop.**

Same as American Studies 325I and Comparative Literature 323 (Topic 69). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330G, 330I, 374D (Topic: Art, Theft, and Hip-Hop), American Studies 325 (Topic: Art, Theft, and Hip-Hop), 325D, 325I, Comparative Literature 323 (Topic: Art, Theft, and Hip-Hop), 323 (Topic 53), 323 (Topic 69). Prerequisite: Upper-division standing.

**AFR 330J. Toni Morrison.**

Same as English 349S (Topic 5) and Women's and Gender Studies 345 (Topic 46). An examination of select novels by the Nobel Laureate and Pulitzer Prize-winning novelist focuses on the positional uniqueness that womanism shares with a predominant feminism, which surfaces in historicized familial relationships. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330J, 372E (Topic 1), English 349S (Topic 5), Women's and Gender Studies 345 (Topic 46). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**AFR 330K. African American Literature through the Harlem Renaissance.**

Same as English 376R. A survey of African American writing, including autobiography, poetry, fiction, and drama. Authors may include Douglass, Jacobs, Frances E. W. Harper, Chestnutt, Du Bois, Hurston, and Hughes. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330K, 372E (Topic 4), English 376R. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**AFR 330L. African American Literature since the Harlem Renaissance.**

Same as English 376S. The development of African American poetry, drama, fiction, and nonfiction since the Harlem Renaissance. Authors may include Wright, Ellison, Baldwin, Malcolm X, Baraka, Morrison, Shange, and Charles Johnson. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330L, 372E (Topic 5), English 376S. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**AFR 330M. Contemporary African American Women's Fiction.**

Same as English 343W and Women's and Gender Studies 340 (Topic 29). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330M, 372E (Topic 15), English 343W, 376M (Topic 7), Women's and Gender Studies 340 (Topic 29). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**AFR 330N. Self-Revelation in Women's Writing.**

Same as Comparative Literature 323 (Topic 4), Middle Eastern Studies 342 (Topic 19), and Women's and Gender Studies 340 (Topic 14). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330N, 372E (Topic 8), Comparative Literature 323 (Topic 4), Middle Eastern Studies 342 (Topic 19), Women's and Gender Studies 340 (Topic 14).

**AFR 330O. Black Film at the Oscars.**

Same as English 343F. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330O, 374D (Topic: Black Film at the Oscars), English 343F, 376M (Topic: Black Film at the Oscars). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**AFR 330P. Writing Slavery.**

Same as English 323E and Women's and Gender Studies 340 (Topic 31). Explores the controversial rewriting of slavery in a presentist context by contemporary authors. Addresses challenges that archival limitations and revisionist writings about slavery pose for academic disciplines, literary instruction, and/or pedagogy. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330P, 374F (Topic 6), English 323E, 376M (Topic 3), Women's and Gender Studies 340 (Topic 31). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**AFR 330Q. Caribbean Literature.**

Same as Comparative Literature 323 (Topic 6) and English 343C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330Q, 374F (Topic 7), Comparative Literature 323 (Topic 6), English 343C, 360L (Topic 2). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**AFR 330R. Literature of Black Politics.**

Same as American Studies 370 (Topic 43). Examines the novels, plays, and critical essays of Ralph Ellison, James Baldwin, and Toni Morrison as works of democratic political theorizing and political engagement. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330R, 374F (Topic 21), American Studies 370 (Topic 43). Prerequisite: Upper-division standing.

**AFR 330S. Danticat and Diaz.**

Same as Comparative Literature 323 (Topic 60) and English 349D. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330S, 372E (Topic: Danticat and Diaz), Comparative Literature 323 (Topic: Danticat and Diaz), 323 (Topic 60), English 349D, 349S (Topic: Danticat and Diaz). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**AFR 330T. Diasporic Magic: Literature and Performance.**

Same as Comparative Literature 323 (Topic 67). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330T, 374D (Topic: Diasporic Magic: Lit/Perfrm), Comparative Literature 323 (Topic: Diasporic Magic: Lit/Perfrm), 323 (Topic 67). Prerequisite: Upper-division standing.

**AFR 330U. Home in Contemporary Black Fiction.**

Same as Comparative Literature 323 (Topic 68). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330U, 374F (Topic: Home in Contemp Blk Fiction), Comparative Literature 323 (Topic: Home in Contemp Blk Fiction), 323 (Topic 68). Prerequisite: Upper-division standing.

**AFR 330V. Greek Tragedies and Postcolonial Dramas.**

Same as Comparative Literature 323 (Topic 73) and Theatre and Dance 357T (Topic 9). Study the adaptation of great dramatic literature of the Greek civilizations to their phenomenal evolution into popular African performances. Putting classical writings from Ancient Greek in dialogue with texts that formed the background of African anti-colonial revolutions, analyze how Africans have used these works to re-shape literary canon and given their world and their histories universal purchase. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330V, 374F (Topic: Greek Tragedy/Postcol Drama), Comparative Literature 323 (Topic: Greek Tragedy/Postcol Drama), 323 (Topic 73), Theatre and Dance 357T (Topic: Greek Tragedy/Postcol Drama), 357T (Topic 9). Prerequisite: For theatre and dance majors, consent of instructor; for all others, upper-division standing.

**AFR 330W. Black Queer Literature and Film.**

Same as English 343M and Women's and Gender Studies 340 (Topic 47). Analyzes written works, films, and videos by and about lesbians, bisexual, transgender, and gay black people, with an emphasis on understanding the historical and theoretical construction of sexual and gender identities and sexual/cultural practices in black communities. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330W, 372E (Topic 13), English 343M, 376M (Topic 8), Women's and Gender Studies 340 (Topic 47). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**AFR 335C. Africana Women's Art.**

Same as Art History 346L and Women's and Gender Studies 340 (Topic 46). Analysis of the diverse modes of presentation, mediums, definitions, and influences of Africana women artists in the diaspora. Designed to use critical theory and art history found in oral and written

literatures, music, films, and other formal and informal documents. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335C, 374F (Topic: Africana Women's Art), 374F (Topic 9), Art History 346L, 373C (Topic: Africana Women's Art), Women's and Gender Studies 340 (Topic: Africana Women's Art), 340 (Topic 46). Prerequisite: Upper-division standing.

**AFR 335D. Visual Cultures of Africa.**

Same as Art History 346M. Painting, textiles, ceramics, sculpture, performance, mixed media, photography, films, and the aesthetic ideas behind the production of African visual cultures from the perspectives of rituals, rites of passage, celebrations, initiations, documentations, and expressions. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335D, 374F (Topic 10), Art History 346M, 373C (Topic: Visual Cultures of Africa).

**AFR 335E. Introduction to African Art.**

Same as Art History 346K. Investigates the lives and works of several artists who have made substantial contributions to the definition, history, and interpretation of the visual arts. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335E, 374F (Topic 11), Art History 346K, 373C (Topic: Introduction to African Art), 374 (Topic: Introduction to African Art).

**AFR 335F. Visual Arts of the Caribbean.**

Same as Art History 345M. A look at a wide range of artists from the countries of the Caribbean, including examples of cinema and reggae music packaging. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335F, 374F (Topic 12), Art History 345M, 373D (Topic: Visual Arts of the Caribbean), 374 (Topic: Visual Arts of the Caribbean).

**AFR 335G. Diaspora Visions.**

Same as Art History 345L and Women's and Gender Studies 340 (Topic 48). An exploration of border crossing by cultures and groups including Yorubas, Jews, Armenians, Tibetans, Hamish, Pakistanis, and Indians and the production of images by immigrants, exiles, and nomads in alien lands. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335G, 374F (Topic 13), Art History 345L, 373D (Topic: Diaspora Visions), 374 (Topic: Diaspora Vision), Women's and Gender Studies 340 (Topic 48).

**AFR 335I. Contemporary British Artists of the African Diaspora.**

Same as Art History 345K. A look at a wide range of artists, practicing in Britain, who are part of the African diaspora via such factors as the Atlantic slave trade and various patterns of international migration. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335I, 374F (Topic 14), Art History 345K, 374 (Topic: Contemp Brit Artists Afr Diaspora).

**AFR 335J. Contemporary Artists of the African Diaspora.**

Same as Art History 345J. Examines a wide range of artists, practicing in different parts of the world, who are part of the African diaspora via such factors as the Atlantic slave trade and various patterns of international migration. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335J, 374F (Topic 15), Art History 345J, 373D (Topic: Contemp Artist of Afr Diaspora), 374 (Topic: Contemp Artist of Afr Diaspora).

**AFR 335K. Twentieth-Century African American Art.**

Same as Art History 344J. A survey of visual art produced by people of African descent in the United States with an emphasis on the twentieth

century and its sociohistorical framework. Changes in modes of expression, formal concerns, pictorial themes, and the impact of the Black Arts movement, feminism, and Afrocentrism on art are explored, as well as the relationship of the work of black artists to art from West and Central Africa and the visual traditions of European and Euro-American artists. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335K, 374F (Topic 19), Art History 344J, 366N (Topic: 20th-Cen African American Art).

#### **AFR 335M. Art of the Harlem Renaissance.**

Same as Art History 344L. Examine the factors which gave rise to the Harlem Renaissance, with a particular emphasis on art and artists. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 344L, 374 (Topic: Harlem Renaissance), African and African Diaspora Studies 335M, 374F (Topic: Harlem Renaissance).

#### **AFR 335N. Black Art, Brown Art.**

Same as Art History 373E (Topic 1) and Mexican American Studies 323C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335N, 372E (Topic: Black Art, Brown Art), Art History 373E (Topic: Black Art, Brown Art), 373E (Topic 1), Mexican American Studies 323C, 374 (Topic: Black Art, Brown Art). Prerequisite: Upper-division standing.

#### **AFR 338C. Black Perspectives in Jazz.**

Same as Music 342 (Topic 5). Explores the social, cultural, political, and artistic relationships between jazz and the black experience, both within the African American context and throughout the diaspora. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 338C, 372E (Topic 12), Music 342 (Topic 5).

#### **AFR 338D. Music of Latin America.**

Same as Latin American Studies 326 (Topic 2) and Music 334 (Topic 2). Consider Latin American music within a broad cultural and historical framework. Latin American musical practices are explored illustrating the many ways that aesthetics and society are embodied in and negotiated through performance. Concepts include diaspora, colonialism, mestizaje, hybridity, migration and globalization. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 338D, 374F (Topic: Music of Latin America), Latin American Studies 322 (Topic: Music of Latin America), 326 (Topic 2), Music 334 (Topic 2).

#### **AFR 338E. The Music of the African Diaspora.**

Same as Latin American Studies 326 (Topic 5) and Music 334 (Topic 5). The musical legacy of the African slave trade in the Americas, the social contexts in which black musical forms have developed, and their varied forms. Subjects include the shifting meanings of "black music" in various contexts; the notion of hybridity; the uses of African influenced music as a political or oppositional tool; and African ethnic groups represented prominently in the New World, the traditions they brought with them, and the ways they have been adapted to new ends. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 338E, 374F (Topic 8), Latin American Studies 326 (Topic 5), Music 334 (Topic: Music of the African Diaspora), 334 (Topic 5). Prerequisite: Upper-division standing.

#### **AFR 338F. Music of Mexico and the Caribbean.**

Same as Latin American Studies 326 (Topic 1) and Music 334 (Topic 1). Introduction to the history of Mexican and Caribbean traditional and commercial music, with some discussion of classical music as well. Attention will be given to music of indigenous, African, European, and mixed origin. Mexico and the Spanish-speaking Caribbean receive

special attention. Class meetings will be divided into lecture/discussion segments, videos, listening, and performance instruction/demonstration. Only one of the following may be counted: African and African Diaspora Studies 338F, 374F (Topic 22), Latin American Studies 326 (Topic 1), Music 334 (Topic 1). Prerequisite: Upper-division standing.

#### **AFR 340. Contemporary African Popular Culture.**

Same as Anthropology 322C and Women's and Gender Studies 340 (Topic 49). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340, 372G (Topic: Contemporary African Popular Culture), Anthropology 322C, 324L (Topic: Contemporary African Popular Culture), Women's and Gender Studies 340 (Topic: Contemporary African Popular Culture), 340 (Topic 49). Prerequisite: Upper-division standing.

#### **AFR 340C. Mandela: The Man and His Politics.**

Same as History 359S. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340C, 374C (Topic: Mandela: The Man and His Politics), History 359S, 364G (Topic: Mandela: The Man and His Politics). Prerequisite: Upper-division standing.

#### **AFR 340D. Apartheid: South African History.**

Same as History 364P and Women's and Gender Studies 340 (Topic 42). A study of the social, political, economic, and cultural history of South Africa to contextualize the rise of apartheid. Primarily focuses on the period since 1948 from the perspectives of women, children, and men of all racial backgrounds who lived through that particular period. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340D, 374C (Topic: Apartheid: South African History), 374C (Topic 6), History 364G (Topic: Apartheid: South African History), 364G (Topic 6), 364P, Women's and Gender Studies 340 (Topic: Apartheid: South African History), 340 (Topic 42). Prerequisite: Upper-division standing.

#### **AFR 340E. African Women's History.**

Same as History 364J and Women's and Gender Studies 340 (Topic 32). Major themes include politics, economics, religion, the family, culture, technology, feminism, colonialism, nationalism, and development in relation to the lives of African women. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340E, 372G (Topic: African Women's History), 372G (Topic 6), History 364G (Topic: African Women's History), 364G (Topic 5), 364J, Women's and Gender Studies 340 (Topic: African Women's History), 340 (Topic 32). Prerequisite: Upper-division standing.

#### **AFR 340F. African History in Films and Photographs.**

Same as History 364F and Women's and Gender Studies 340 (Topic 73). Explore the social, economic, and political challenges of the past fifty years of Africa's history through an examination of several popular films. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340F, 372G (Topic 32), History 364F, 364G (Topic 4), Women's and Gender Studies 340 (Topic: African History in Films and Photographs), 340 (Topic 73). Prerequisite: Upper-division standing.

#### **AFR 340G. Ancient Egypt.**

Same as Classical Civilization 348 (Topic 11) and Middle Eastern Studies 342 (Topic 55). Discussion of Egypt's culture, language, and history from the prehistorical period (13,000 BC) to the New Kingdom (1069 BC). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340G, 374C (Topic: Ancient Egypt), Classical Civilization 348 (Topic 11), Middle

Eastern Studies 342 (Topic: Ancient Egypt), 342 (Topic 55). Prerequisite: Upper-division standing.

### **AFR 340J. African Travel Narratives.**

Same as History 350L (Topic 84). Examines histories of Africa and travel through eyewitness accounts. Studies journeys Africans have made within and from the continent alongside accounts of travelers visiting Africa from elsewhere. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340J, 372G (Topic: African Travel Narratives), 372G (Topic 9), History 350L (Topic: African Travel Narratives), 350L (Topic 84). Prerequisite: Upper-division standing.

### **AFR 340K. Medicine in African History.**

Same as History 350L (Topic 88). An exploration of how communities have confronted disease throughout Africa's history. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340K, 372D (Topic: Medicine in African History), 372D (Topic 3), History 350L (Topic: Medicine in African History), 350L (Topic 88). Prerequisite: Upper-division standing.

### **AFR 340L. Historical Imagining of Africa in Films.**

Same as History 350L (Topic 70) and Women's and Gender Studies 340 (Topic 40). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340L, 374F (Topic 18), History 350L (Topic 70), Women's and Gender Studies 340 (Topic 40). Prerequisite: Upper-division standing.

### **AFR 340M. Geographies of International Development in Africa.**

Same as Geography 330F. Critically examines the major approaches to "Development" in colonial and postcolonial eras, with a focus on a range of African resources: from water to wildlife, forests to farms, airways to rangelands, and including a consideration of African bodies themselves as sites of development and resistance. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340M, 372F (Topic: Intl Development in Africa), 372F (Topic 1), Geography 330F, 356T (Topic: Intl Development in Africa), 356T (Topic 10). Prerequisite: Upper-division standing.

### **AFR 340N. African Queer Studies.**

Same as Women's and Gender Studies 335 (Topic 3). Examines the development of African queer studies as the interdisciplinary study of sexuality on the African continent, and its impact on the academic and activist realm. Focus on intersectional feminist and queer theory and how this field offers tools that can be used to rethink issues of oppression and domination in relationship to race, nation, sex, gender, and sexuality on the African continent. Of particular interest will be LGBTQ activism and the ways in which queer Africans engage and shape their sexuality, and create forms of belonging in their countries and their communities. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340N, 372G (Topic 7), Women's and Gender Studies 335 (Topic 3). Prerequisite: Upper-division standing.

### **AFR 340O. History of Southern Africa.**

Same as History 350L (Topic 72) and Women's and Gender Studies 340 (Topic 39). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340O, 374C (Topic 4), History 350L (Topic 72), Women's and Gender Studies 340 (Topic 39). Prerequisite: Upper-division standing.

### **AFR 340P. Egyptian Hieroglyphics in Cultural Context.**

Same as Classical Civilization 348 (Topic 17). The vocabulary and grammar of ancient Egypt as a guide to understanding artifacts and

monuments from the different periods of Egyptian history, whether in museums, exhibitions, or on site overseas. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340P, 374C (Topic: Egyptian Hieroglyphics in Cultural Context), 374C (Topic 5), Classical Civilization 348 (Topic 17). Prerequisite: Upper-division standing.

### **AFR 340Q. Daily Life in Ancient Egypt.**

Same as Classical Civilization 348 (Topic 24), Middle Eastern Languages and Cultures 321 (Topic 29), and Middle Eastern Studies 342 (Topic 51). Delves into all areas of Egyptian daily life from the dawn of the dynasties to the age of Cleopatra. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340Q, 374C (Topic: Daily Life in Ancient Egypt), 374C (Topic 7), Classical Civilization 348 (Topic: Daily Life in Ancient Egypt), 348 (Topic 24), Middle Eastern Languages and Cultures 321 (Topic: Daily Life in Ancient Egypt), 321 (Topic 29), Middle Eastern Studies 342 (Topic: Daily Life in Ancient Egypt), 342 (Topic 51). Prerequisite: Upper-division standing.

### **AFR 340R. Archaeology of African Thought.**

Same as Anthropology 324L (Topic 24). Archaeological, historical, and ethnographic data as they relate to the foundations of contemporary African and African American societies. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora 340R, 372G (Topic 3), Anthropology 324L (Topic 24).

### **AFR 340S. Gender in North and West Africa.**

Same as Islamic Studies 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 342 (Topic 28), and Women's and Gender Studies 340 (Topic 34). Examines gender discourses through North African and West African literary works by looking at the role(s) played by Islam and Christianity in the creation of the identities of African men and women. Includes discussion of the question of what gender is, and whether it is socially constructed. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340S, 372G (Topic 5), Islamic Studies 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 342 (Topic 28), Women's and Gender Studies 340 (Topic 34). Prerequisite: Upper-division standing.

### **AFR 340T. African Religious Culture and Creativity.**

Same as Religious Studies 360C and Theatre and Dance 357T (Topic 7). Examine religion as an aesthetic practice and explore the inventiveness of the imagination that underlines African religious practices. Study religious practices spanning from the pre-colonial and post-colonial eras to the contemporary period particularly in urban centers. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340T, 372G (Topic: Afr Relig Cultur/Creativity), Religious Studies 360 (Topic: Afr Relig Cultur/Creativity), 360C, Theatre and Dance 357T (Topic: Afr Relig Cultur/Creativity), 357T (Topic 7). Prerequisite: For theatre and dance majors, consent of instructor; for all others, upper-division standing.

### **AFR 340U. Africa and Rome.**

Same as Classical Civilization 348P, History 321J, and Middle Eastern Studies 343 (Topic 15). Explore the history of Roman Africa with emphasis on what is now Tunisia and northern Algeria. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340U, 370 (Topic: Africa and Rome), 374C (Topic: Africa and Rome), Ancient History and Classical Civilization 330 (Topic: Africa and Rome), Classical Civilization 348 (Topic: Africa and Rome), 348P, History 321J, 364G (Topic: Africa and Rome), 366N (Topic: Africa and Rome), Middle Eastern Studies 343

(Topic: Africa and Rome), 343 (Topic 15). Prerequisite: Upper-division standing.

### **AFR 345. History of East Africa.**

Same as History 359P. A survey of the history of Kenya, Tanzania, and Uganda from prehistoric times to the postindependence era. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **AFR 345C. History of West Africa.**

Same as History 359R. A history of the West Africa region: the rise and fall of kingdoms, relations with Europe and Asia, the great revolutions of the nineteenth century, colonial administration, decolonization, and the search for economic development and political stability since independence. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **AFR 345D. Afro-Luso-Brazilian Worlds.**

Same as Latin American Studies 328 (Topic 3) and Portuguese Civilization 320E (Topic 3). Examine the myths and realities in the Afro-Luso-Brazilian worlds and the connections and contrasts between them. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345D, 372G (Topic 8), 374E (Topic: Afro-Luso-Brazilian Worlds), Latin American Studies 328 (Topic 3), Portuguese Civilization 320E (Topic 3). Prerequisite: Upper-division standing.

### **AFR 345E. Afro-Latin America.**

Same as History 350L (Topic 68) and Latin American Studies 366 (Topic 31). Examines the historical experiences of people of African descent in Latin America and the Caribbean beginning in the slavery era, and focuses on the histories of Afro-Latin Americans after emancipation. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345E, 372G (Topic 10), History 350L (Topic 68), Latin American Studies 366 (Topic 31). Prerequisite: Upper-division standing.

### **AFR 345F. Sex and Power in the African Diaspora.**

Same as Anthropology 324L (Topic 48) and Women's and Gender Studies 340 (Topic 52). Exploration of various experiences and theories of sex, intimacy, and desire alongside intellectual and artistic engagements with power hierarchies and spirituality across transnational black communities. Subjects include the concept of "erotic subjectivity" from various theoretical and methodological angles, principally within African diasporic contexts. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345F, 372G (Topic 33), Anthropology 324L (Topic 48), Women's and Gender Studies 340 (Topic 52). Prerequisite: Upper-division standing.

### **AFR 345G. Religions of the Caribbean.**

Same as Anthropology 323D, Latin American Studies 322D, and Religious Studies 366D. Examine the histories and politics of religious practices in the Greater Caribbean, encompassing the islands and Central American coasts as well as the continental diasporas, from Vodou and Rastafari to popular Hinduism. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Religions of the Caribbean) 345G, Anthropology 324L (Topic: Religions of the Caribbean), 323D, Latin American Studies 324L (Topic: Religions of the Caribbean), 322D, Religious Studies 366 (Topic: Religions of the Caribbean), 366 (Topic 2), 366D. Prerequisite: Upper-division standing.

### **AFR 345I. Nationalisms in the Caribbean.**

Same as History 371Q and Latin American Studies 366C. Three lecture hours a week for one semester. Only one of the following

may be counted: African and African Diaspora Studies 345I, 374E (Topic: Nationalism in Caribbean), History 363K (Topic: Nationalism in Caribbean), 371Q, Latin American Studies 366 (Topic: Nationalism in Caribbean), 366C. Prerequisite: Upper-division standing.

### **AFR 345J. Race, Rebellion and Revolution in the Caribbean.**

Same as History 372Q and Latin American Studies 366D. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345J, 374E (Topic: Race/Rebellion/Rev Caribbean), History 363K (Topic: Race/Rebellion/Rev Caribbean), 372Q, Latin American Studies 366 (Topic: Race/Rebellion/Rev Caribbean), 366D. Prerequisite: Upper-division standing.

### **AFR 345K. Race Against Empire: Americas.**

Same as History 374Q and Latin American Studies 366 (Topic 44). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345K, 374E (Topic: Race Against Empire: Amers), History 366N (Topic: Race Against Empire: Americas), 374Q, Latin American Studies 366 (Topic: Race Against Empire: Amers), 366 (Topic 44). Prerequisite: Upper-division standing.

### **AFR 345L. The Politics of Race and Violence in Brazil.**

Same as Anthropology 324L (Topic 37) and Latin American Studies 324L (Topic 14). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345L, 374E (Topic 2), Anthropology 324L (Topic 37), Latin American Studies 324L (Topic 14). Prerequisite: Upper-division standing.

### **AFR 345M. Reimagining Cuba, 1868-Present.**

Same as History 347C and Latin American Studies 366 (Topic 22). Explores Cuban-United States relations from the nineteenth century to the present, including issues of empire and transnationalism, and social change engagements between Cuba and the United States before and after the Cuban Revolution. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345M, 374E (Topic 4), History 347C, Latin American Studies 366 (Topic 22). Prerequisite: Upper-division standing.

### **AFR 345N. Afro-Caribbean Diasporas.**

Same as Latin American Studies 322 (Topic 19). Analysis of the socio-cultural contexts of the African diaspora in the Americas, with a specific focus on the African diaspora in the islands of the Caribbean. Designed to analyze the cultural, social, and philosophical contributions of these diasporic populations and the ways they build social and cultural agency in their specific national or diasporic contexts. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345N, 374E (Topic 6), Latin American Studies 322 (Topic 19). Prerequisite: Upper-division standing.

### **AFR 345O. Debt and Colonialism in the Caribbean.**

Same as American Studies 321O, History 345O, and Latin American Studies 366 (Topic 43). Examine the role that debt has played in the formation of colonial and neocolonial practices in the Caribbean region. Take a broad approach to the concept of debt in order to explore the financial and monetary dynamics of debt, but also the political and cultural implications of debt. Focus in particular on debt as justification in the furtherance of colonialism throughout the Caribbean. Engage in a historical examination of the United States' colonial projects and military interventions in the region throughout the 20th and into the 21st centuries. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345O, 374E (Topic: Debt/Colonialism Caribbean), American Studies 321 (Topic: Debt/Colonialism Caribbean), 321O, History 345O, 363K (Topic: Debt/Colonialism Caribbean), Latin American Studies 366 (Topic: Debt/

Colonialism Caribbean), 366 (Topic 43). Prerequisite: Upper-division standing.

#### **AFR 345P. African Religion in the New World.**

Same as Latin American Studies 322N and Religious Studies 366N. Explore the contributions of scholars and artists who engage African diaspora religions in their work through multiple conceptual approaches. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345P, 370 (Topic: Afr Religion in New World), 374E (Topic: Afr Religion in New World), Latin American Studies 322 (Topic: Afr Religion in New World), 322N, Religious Studies 361 (Topic: Afr Religion in New World), 366 (Topic: African Religion in New World), 366N. Prerequisite: Upper-division standing.

#### **AFR 345Q. Mediascapes: Literature and Media in the Caribbean.**

Same as Latin American Studies 328 (Topic 5) and Spanish Civilization 320C (Topic 2). Analyzes the relationship between literature and media technologies in contemporary Caribbean cultures. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345Q, 370 (Topic: Lit and Media in Caribbean), 372G (Topic: Lit and Media in Caribbean), Latin American Studies 328 (Topic 5), 370S (Topic 28), Spanish 350E, Spanish 350K (Topic 5), Spanish Civilization 320C (Topic 2). Prerequisite: Upper-division standing.

#### **AFR 345R. Racism and Inequality in Latin America.**

Same as Latin American Studies 322J. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345R, 374E (Topic: Racism/ Inequality Lat Amer), Latin American Studies 322 (Topic: Racism/ Inequality Lat Amer), 322J. Prerequisite: Upper-division standing.

#### **AFR 345S. Afro-Latinos: Memory, Literature, Culture.**

Discuss the lives and works of Afro-Latinos in the United States from the nineteenth century to the present. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345S, 370 (Topic: Afro Latinos: Memory/Lit/Cul), 374F (Topic: Afro-Latinos: Memory/Lit/Cul), Latin American Studies 370S (Topic: Afro Latinos: Memory/Lit/Cul). Prerequisite: Upper-division standing.

#### **AFR 345T. Afro-Latinidades in the United States and Latin America.**

Same as Latin American Studies 322Q and Mexican American Studies 364K. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345T, 370 (Topic: Afro-Latinidades US/Lat Am), 374E (Topic: Afro-Latinidades US/Lat Am), Latin American Studies 322 (Topic: Afro-Latinidades US/Lat Am), 322Q, Mexican American Studies 364K, 374 (Topic: Afro-Latinidades US/Lat Am). Prerequisite: Upper-division standing.

#### **AFR 350. Measuring Racial Inequality.**

Same as Latin American Studies 322 (Topic 21). Analysis of racial inequality through social statistics. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350, 372F (Topic: Measuring Racial Inequality), Latin American Studies 322 (Topic: Measuring Racial Inequality), 322 (Topic 21). Prerequisite: Upper-division standing.

#### **AFR 350C. Black Middle Class.**

Same as American Studies 324C and Women's and Gender Studies 340 (Topic 83). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350C, 372C (Topic: Black Middle Class), American Studies 321 (Topic: Black

Middle Class), 324C, Women's and Gender Studies 340 (Topic: Black Middle Class), 340 (Topic 83). Prerequisite: Upper-division standing.

#### **AFR 350D. Politics of Black Life.**

Same as American Studies 370 (Topic 57). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350D, 372F (Topic: Politics of Black Life), American Studies 370 (Topic: Politics of Black Life), 370 (Topic 57). Prerequisite: Upper-division standing.

#### **AFR 350E. Race, Empire, And Modernity.**

Same as Latin American Studies 322C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350E, 372F (Topic: Race, Empire, And Modernity), Latin American Studies 322 (Topic: Race, Empire, And Modernity), 322C. Prerequisite: Upper-division standing.

#### **AFR 350F. Black Women on Trial.**

Same as History 350R (Topic 40) and Women's and Gender Studies 340 (Topic 69). Using press coverage of historical and contemporary court cases and trials of women ranging from Angela Davis to Marissa Alexander, explores how media shapes public and popular perceptions of race, class, gender, sexuality, and the law. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350F, 374D (Topic: Black Women on Trial), History 350R (Topic: Black Women on Trial), 350R (Topic 40), Women's and Gender Studies 340 (Topic: Black Women on Trial), 340 (Topic 69). Prerequisite: Upper-division standing and six semester hours of coursework in history.

#### **AFR 350G. Women, Gender, and Black Power.**

Same as History 350R (Topic 41) and Women's and Gender Studies 340 (Topic 70). Examines the Black Power Movement through the experiences of African American women activists as well as gender and sexuality constructs that prevailed during the second half of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350G, 374D (Topic: Women, Gender, and Black Power), History 350R (Topic: Women, Gender, and Black Power), 350R (Topic 41), Women's and Gender Studies 340 (Topic: Women, Gender, and Black Power), 340 (Topic 70). Prerequisite: Upper-division standing and six semester hours of coursework in history.

#### **AFR 350J. HIV and AIDS Activism and the Healing Arts.**

Same as Anthropology 324J and Women's and Gender Studies 335 (Topic 10). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350J, 374E (Topic: HIV/AIDS Activism/Heal Arts), Anthropology 324J, 324L (Topic: HIV/AIDS Activism/Heal Arts), Women's and Gender Studies 335 (Topic: HIV/AIDS Activism/Heal Arts), 335 (Topic 10). Prerequisite: Upper-division standing.

#### **AFR 350K. Puerto Rico In Crisis.**

Same as American Studies 370 (Topic 56), History 347J, and Mexican American Studies 364P. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350K, 374E (Topic: Puerto Rico In Crisis), American Studies 370 (Topic: Puerto Rico In Crisis), 370 (Topic 56), History 347J, 363K (Topic: Puerto Rico In Crisis), Mexican American Studies 364P, 374 (Topic: Puerto Rico In Crisis). Prerequisite: Upper-division standing.

#### **AFR 350L. Race And Place.**

Same as American Studies 321P. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350L, 372C (Topic: Race And Place), American Studies

321 (Topic: Race And Place), 321P, Geography 356T (Topic: Race And Place). Prerequisite: Upper-division standing.

### **AFR 350M. Rethinking Blackness.**

Same as American Studies 321N and Women's and Gender Studies 340 (Topic 71). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350M, 372C (Topic: Rethinking Blackness), American Studies 321 (Topic: Rethinking Blackness), 321N, English 376M (Topic: Rethinking Blackness), Theatre and Dance 357T (Topic: Rethinking Blackness), Women's and Gender Studies 340 (Topic: Rethinking Blackness), 340 (Topic 71). Prerequisite: Upper-division standing.

### **AFR 350N. Barack Obama and American Democracy.**

Same as History 350R (Topic 38). Focuses on the impact of Barack Obama's watershed presidency on American democracy. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350N, 372F (Topic: Obama/American Democracy), History 350R (Topic: Obama/American Democracy), 350R (Topic 38). Prerequisite: Upper-division standing and six semester hours of coursework in history.

### **AFR 350P. Urban Slavery in the Americas.**

Same as American Studies 370 (Topic 55), History 347N, and Latin American Studies 366 (Topic 36). Examines urban slavery in the Americas. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350P, 374E (Topic: Urban Slavery in the Americas), American Studies 370 (Topic: Urban Slavery in the Americas), 370 (Topic 55), History 347N, 350L (Topic: Urban Slavery in the Americas), Latin American Studies 366 (Topic: Urban Slavery in the Americas), 366 (Topic 36). Prerequisite: Upper-division standing.

### **AFR 350Q. African-American Politics.**

Same as Government 371G. Explore the evolution, nature, and role of African-American politics within the American political system. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350Q, 374D (Topic 13), Government 370K (Topic 3), 371G. Prerequisite: Six semester hours of lower-division coursework in Government.

### **AFR 350R. Global History of Disease.**

Same as History 366N (Topic 18). Introduction to major themes in the history of medicine through the lens of disease. To be considered are the roles governments, medical practitioners, and patients play in the social construction of disease and health. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350R, 372D (Topic: Global History of Disease), History 366N (Topic: Global History of Disease), 366N (Topic 18). Prerequisite: Upper-division standing.

### **AFR 350S. The Black Church in African American Politics.**

Same as Government 371F and Religious Studies 346K. Explore the political role of the Black church in the African American experience. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350S, 374D (Topic 14), Government 370K (Topic 4), 371F, Religious Studies 346 (Topic 7), 346K. Prerequisite: Six semester hours of lower-division coursework in Government.

### **AFR 350T. Domestic Slave Trade.**

Same as History 350R (Topic 24). Explores the inner workings of the domestic slave trade from the perspectives of slaveholders, speculators, and the enslaved. Analysis of maps, letters, diaries, newspaper advertisements, and legislation relating to the domestic slave trade.

Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350T, 374D (Topic 20), History 350R (Topic 24). Prerequisite: Upper-division standing and six semester hours of coursework in history.

### **AFR 350U. The Civil Rights Movement from a Comparative Perspective.**

Same as American Studies 370 (Topic 60), History 350R (Topic 35), and Mexican American Studies 364C. Focuses on African American and Mexican American struggles for civil rights. Asian American and Native American movements will also be addressed. Using a comparative approach the student will consider the distinctiveness of each of these struggles while also viewing them in relation to each other. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350U, 374D (Topic: Civil Rts Mov from Comp Persp), 374D (Topic 18), American Studies 370 (Topic: Civil Rts Mov from Comp Persp), 370 (Topic 60), History 350R (Topic 35), Mexican American Studies 364C, 374 (Topic: Civil Rts Mov from Comp Persp). Prerequisite: Upper-division standing and six semester hours of coursework in history.

### **AFR 350V. Gender and Slavery in the United States.**

Same as History 350R (Topic 14) and Women's and Gender Studies 345 (Topic 31). Examines the gendered experience of chattel slavery in the United States. Includes critical analysis of classic and contemporary texts, films, and songs that focus on slave labor, family, community, sexuality, and the economy. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350V, 372C (Topic 4), History 350R (Topic 14), Women's and Gender Studies 345 (Topic 31). Prerequisite: Upper-division standing and six semester hours of coursework in history.

### **AFR 350W. Property in American Culture.**

Same as American Studies 370 (Topic 38). Explores American conceptions of property over a wide range of economic transformations from the mercantile to the digital age, with special attention to the ambiguous and tension-filled meanings of property for women, African Americans, and Native Americans. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350W, 372C (Topic 3), American Studies 370 (Topic 38). Prerequisite: Upper-division standing

### **AFR 351. The Global City.**

Same as American Studies 324E, Anthropology 324S, and Urban Studies 330G. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351, 374D (Topic: The Global City), American Studies 321 (Topic: The Global City), 324E, Anthropology 324L (Topic: The Global City), 324S, Urban Studies 330G, 353 (Topic: The Global City). Prerequisite: Upper-division standing.

### **AFR 351C. Women and Social Movements in the Twentieth-Century United States.**

Same as American Studies 321 (Topic 10), History 365G (Topic 8), and Women's and Gender Studies 340 (Topic 53). Examines women's participation in well-known and lesser-known social movements during the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351C, 372C (Topic: Women and Socl Mvmnts in US), 372C (Topic 7), American Studies 321 (Topic 10), History 365G (Topic 8), Women's and Gender Studies 340 (Topic 53). Prerequisite: Upper-division standing.

### **AFR 351D. The Tragicomedy of American Democracy.**

Same as American Studies 370 (Topic 44) and Core Texts and Ideas 326T. Examines the foundational ideas and practices essential to the

unfolding of American democracy by focusing on founding documents, public speeches, major political conflicts, and canonical texts of political philosophy. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351D, 372F (Topic 15), American Studies 370 (Topic 44), Core Texts and Ideas 326 (Topic 2), 326T. Prerequisite: Upper-division standing.

#### **AFR 351E. History of Black Entrepreneurship in the United States.**

Same as American Studies 370 (Topic 58) and History 350R (Topic 12). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351E, 374D (Topic 2), American Studies 370 (Topic: Hist of Black Entrepren in US), 370 (Topic 58), History 350R (Topic 12). Prerequisite: Upper-division standing and six semester hours of coursework in history.

#### **AFR 351F. Black Americans and the South.**

Same as American Studies 370 (Topic 31). Traces the post-Reconstruction conversation among black Americans over how to live in the South and make sense of its history of widespread racial violence, lynching, de jure segregation, civil rights struggles, and their legacies. Sources include authors such as Jean Toomer, Tayari Jones, and Natasha Trethewey, and fiction, speeches, newspaper accounts, photographs, paintings, poetry, and popular music, including jazz, blues, rock, rhythm and blues, and hip hop and rap. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351F, 374D (Topic 6), American Studies 370 (Topic 31). Prerequisite: Upper-division standing.

#### **AFR 351G. Black Women in America.**

Same as History 350R (Topic 17) and Women's and Gender Studies 340 (Topic 9). Uses primary sources, historical monographs, and essays to provide a chronological and thematic overview of the experiences of black women in America from their African roots to the circumstances they face in the present era. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351G, 374D (Topic 9), History 350R (Topic 17), Women's and Gender Studies 340 (Topic 9). Prerequisite: Upper-division standing and six semester hours of coursework in history.

#### **AFR 351J. Texas Black History.**

Same as History 365G (Topic 7). Surveys the history of blacks in Texas from before American settlement to the present. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351J, 374D (Topic 15), History 365G (Topic 7). Prerequisite: Upper-division standing.

#### **AFR 351K. Antebellum Slavery.**

Same as History 365G (Topic 6) and Women's and Gender Studies 340 (Topic 33). Examination of slavery at its maturity during the nineteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351K, 374D (Topic 16), History 365G (Topic 6), Women's and Gender Studies 340 (Topic 33). Prerequisite: Upper-division standing.

#### **AFR 351L. The United States in the Civil Rights Era.**

Same as American Studies 321 (Topic 9) and History 356P. Examines United States history in the post-World War II era, including how civil rights and other racial issues helped shape the politics, popular culture, and social life of this period. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351L, 374D (Topic 17), American Studies 321 (Topic 9), History 356P, Mexican American Studies 374 (Topic 36). Prerequisite: Upper-division standing.

#### **AFR 351M. African American Social and Political Thought.**

Same as American Studies 321J, Core Texts and Ideas 326J, and Government 335G. Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351M, 374D (Topic 21), American Studies 321J, Core Texts and Ideas 326 (Topic 3), 326J, Government 335G, 335M (Topic 10). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

#### **AFR 351N. Black Political Thought.**

Same as American Studies 370 (Topic 42). Exploration of black social and political thinkers, writers, and reformers, and how their works influence the legacies of slavery, empire, and patriarchy within the United States. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351N, 372C (Topic 14), American Studies 370 (Topic 42). Prerequisite: Upper-division standing.

#### **AFR 351O. Slavery across Genres.**

Same as American Studies 370 (Topic 32). Uses nonfictional and fictional narrative accounts of slavery in the United States to examine the political, social, cultural, economic, and psychological aspects of the institution of slavery at different historical moments. Sources may include authors such as Frederick Douglass, Toni Morrison, William Faulkner, Harriet Beecher Stowe, and Edward P. Jones; graphic novels; conceptual art; court records; and bills of sale. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351O, 372E (Topic 2), American Studies 370 (Topic 32). Prerequisite: Upper-division standing.

#### **AFR 351P. Atlantic Slavery: History and Memory.**

Same as American Studies 370 (Topic 33). Charts a history of Atlantic slavery by focusing on primary sources detailing crucial events and contexts such as the Zong Massacre, the Haitian Revolution, and Dred Scott vs. Sandford, among others. Considers how historians, memoirists, fiction writers, visual and performance artists and filmmakers have come to terms with that history and its implications. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351P, 374E (Topic 3), American Studies 370 (Topic 33). Prerequisite: Upper-division standing.

#### **AFR 351R. African American Family in Historical and Contemporary Contexts.**

Same as Liberal Arts Honors 351C and Sociology 325F. Restricted to Plan I majors in the College of Liberal Arts. Examine how African Americans managed to maintain a sense of family from the time of slavery to the present trend of mass incarceration. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372D (Topic: Afr Am Fam: Hist/Contem Cntxt), 351R, Liberal Arts Honors 350 (Topic: Afr Am Fam: Hist/Contem Cntxt), 351C, Sociology 321K (Topic: Afr Am Fam: Hist/Contem Cntxt), 325F. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

#### **AFR 351S. Science, Magic, and Religion.**

Same as American Studies 327K, Anthropology 324C, and Religious Studies 373L. Historical and cross-cultural overview of the constructed concepts of magic, science, and religion through comparative examinations of cultural contexts from the Islamic world, western Europe, the Caribbean, the U.S., and Mozambique. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Science/Magic/Religion), 351S, American Studies 327 (Topic: Science, Magic, Religion),

327K, Anthropology 324L (Topic: Science, Magic, & Religion), 324C, Religious Studies 373 (Topic: Science, Magic, & Religion), 373 (Topic 6), 373L. Prerequisite: Upper-division standing.

### **AFR 351T. Anthropology for Liberation.**

Same as Anthropology 324L (Topic 65). Takes a critical look at anthropologists' quests to shifting the legacy of anthropology from the colonial toward freedom and liberation. Explores anthropology's relationship to human rights, violence, questions of race, gender, and sexuality, imperialism and neoliberalism, and the ways that some anthropologists have chosen to use their field work in new and different ways. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351T, 372C (Topic: Anthropology for Liberation), 372C (Topic 8), Anthropology 324L (Topic: Anthropology for Liberation), 324L (Topic 65), Women's and Gender Studies 340 (Topic: Anthropology for Liberation). Prerequisite: Upper-division standing.

### **AFR 351U. Race, Capitalism, and the Environment.**

Same as Geography 324F and Women's and Gender Studies 340 (Topic 82). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351U, 372C (Topic: Race/Capitalism/Environment), Geography 324F, 356T (Topic: Race/Capitalism/Environment), Women's and Gender Studies 340 (Topic: Race/Capitalism/Environment), 340 (Topic 82). Prerequisite: Upper-division standing.

### **AFR 352C. Psychology of Race and Racism.**

Same as Educational Psychology 354J. Review of the history and evolution of the construct of race as a psychological and social phenomenon. Multidisciplinary but primarily social-psychological approach: in addition to readings from psychology, ideas in the areas of anthropology, sociology, and biology will be discussed. Emphasis on theoretical and conceptual approaches toward understanding the psychology of racial thinking. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352C, 372D (Topic 1), Educational Psychology 354J, 362 (Topic 6). Prerequisite: Upper-division standing.

### **AFR 352D. Psychology of the African American Experience.**

Same as Educational Psychology 354G. Examination of the psychology of people of African descent using an African-centered liberatory model. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352D, 374D (Topic 11), Educational Psychology 354G, 362 (Topic: Psychology of the African-American Experience), 362 (Topic 9: Psychology of the African-American Experience).

### **AFR 352E. African Americans in Sports.**

Same as Curriculum and Instruction 373. Theoretical and practical complexities in issues surrounding African Americans in sports, including the relationship between athletics and higher education. Focuses on racial stereotyping, identity theory, and how practical knowledge of these theories can aid in understanding the current state of athletics. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352E, 374D (Topic 12), Curriculum and Instruction 373.

### **AFR 352F. Sociocultural Influences on Learning.**

Examine human learning in multisocial, multilingual, and multicultural contexts; realities of society and their impact on learning; social concerns such as prejudice, stereotyping, cross-cultural attitudes, bilingual issues, parent and community involvement. Three lecture hours a week for one semester, with field hours to be arranged. Only one of the following may be counted: African and African Diaspora Studies

352F, 372D (Topic 2), Applied Learning and Development 327, Mexican American Studies 374 (Topic: Sociocultural Influences on Learning). Prerequisite: Three semester hours of coursework in psychology.

### **AFR 352G. African American Religions.**

Same as Religious Studies 346V. Survey the history and variety of religion as practiced by Americans of African descent. Examine the social construction of African religion, black religion, and the black church, within the cultural context of the United States. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352G, 374D (Topic: African American Religions), Religious Studies 346 (Topic: African American Religions), 346V. Prerequisite: Upper-division standing.

### **AFR 352J. Black Lives in the Archives.**

Same as History 369Q. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352J, 374E (Topic: Black Lives in the Archives), History 366N (Topic: Topic: Black Lives in the Archives), 369Q. Prerequisite: Upper-division standing.

### **AFR 352K. African-American Women's Political Activism.**

Same as Government 371M and Women's and Gender Studies 340 (Topic 94). Explore Black feminism and African-American women's political participation. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352K, 374D (Topic: Afr Amer Women Pol Activism), Government 355M (Topic: Afr Amer Women Pol Activism), 370K (Topic: Afr Amer Women Pol Activism), 371M, Women's and Gender Studies 340 (Topic 94). Prerequisite: Six semester hours of lower-division coursework in government and upper-division standing.

### **AFR 352L. Africa and Indian Ocean World.**

Same as Asian Studies 361P and History 350L (Topic 96). Explore the connected histories of the geographical regions and economic communities that share the littoral space of the Indian Ocean. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352L, 374C (Topic: Africa/Indian Ocean World), Asian Studies 361 (Topic: Africa/Indian Ocean World), 361P, History 350L (Topic: Africa/Indian Ocean World), 350L (Topic 96). Prerequisite: Upper-division standing.

### **AFR 356C. African American Theatre History: Precolonial West African Performance to 1950.**

Chronological examination of the theatrical work of Africans and African Americans from precolonial West Africa to the United States in 1950. Subjects include productions, performance theory, play texts, essays, reviews, and manifestos within their sociopolitical contexts, with an emphasis on strategies of resistance that are embedded in aesthetics. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 356C, 374F (Topic: African-American Theatre History, Precolonial-1950), Theatre and Dance 357T (Topic: African-American Theatre History, Precolonial-1950). Prerequisite: Upper-division standing.

### **AFR 356D. African American Theatre History: 1950 to Present.**

Chronological examination of the history of African American theatre since 1950, through the study of productions, performance theory, play texts, essays, reviews, and manifestos within their sociopolitical contexts, with an emphasis on strategies of resistance that are embedded in aesthetics. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 356D, 374F (Topic: African American Theatre History, 1950-

Present), Theatre and Dance 357T (Topic: African American Theatre History, 1950-Present). Prerequisite: Upper-division standing.

### **AFR 356E. Black Women and Dance.**

Same as Women's and Gender Studies 340 (Topic 43). Exploration of how black women express creativity in response to the violence of racism and sexism, and to envision new ways of being and moving in the world. Women's participation in ritual, concert, and social dance in North America, Haiti, Cuba, and Brazil will be studied through readings, viewings, and stagings. Only one of the following may be counted: African and African Diaspora Studies 356E, 372E (Topic: Black Women and Dance), Theatre and Dance 357T (Topic: Black Women and Dance), Women's and Gender Studies 340 (Topic: Black Women and Dance), 340 (Topic 43). Prerequisite: Upper-division standing.

### **AFR 357C. African American History to 1860.**

Same as American Studies 321E and History 357C. Review of West African origins; New World settlement patterns, social life, and culture; discussion of the Atlantic slave trade, the development of capitalism and plantation slavery, and the origins of racism. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357C, American Studies 321 (Topic: African American History to 1860), 321E, History 357C. Prerequisite: Upper-division standing.

### **AFR 357D. African American History since 1860.**

Same as American Studies 321F, History 357D, and Urban Studies 327D. Survey of the history of African Americans in the United States from 1860 to the present: Emancipation, Reconstruction politics, migration and urbanization, and the evolution of African American culture; kinds of sources and methods valuable for analyzing African American life and culture. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357D, American Studies 321 (Topic: African American History since 1860), 321F, History 357D, Urban Studies 327D, 353 (Topic 1). Prerequisite: Upper-division standing.

### **AFR 359N. History of Africa since 1800.**

Same as History 359N. Development of sub-Saharan Africa from the end of the slave trade to independence. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **AFR 360. Race, Law, and United States Society.**

Same as American Studies 370 (Topic 5) and History 365G (Topic 13). Examines the intersection of racial ideology and legal culture in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360, 372F (Topic: Race, Law, and US Society), American Studies 370 (Topic: Race, Law, and US Society), 370 (Topic 5), History 365G (Topic: Race, Law, and US Society), 365G (Topic 13). Prerequisite: Upper-division standing.

### **AFR 360C. Social Media for Social Impact.**

Explore the social media universe through the lens of black studies. Discuss traditional black studies issues as they play out in the social media context. Engage in professional development activities and service learning. Interpret black participation in the social media landscape, and examine the possibilities for social media participation as a community benefit. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360C, 372C (Topic: Black Studies & Social Media), 372C (Topic 5). Prerequisite: Upper-division standing.

### **AFR 360D. Race, Gender, and Surveillance.**

Same as American Studies 321 (Topic 6), Sociology 322V, and Women's and Gender Studies 322J. Overview of theories in the sociology of social control, with a focus on risk, power, ethics, and surveillance. Examines historical transformations in social control and the distributions of power in the United States and global contexts, with attention to race, gender, and class. Subjects include: the transatlantic slave trade; prisons and punishment; the gaze, voyeurism, and reality television watching; the Internet; travel and state borders; privacy; and biometrics and the body. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360D, 372C (Topic 12), American Studies 321 (Topic 6), Sociology 322V, Women's and Gender Studies 322 (Topic 8), 322J. Prerequisite: Upper-division standing.

### **AFR 360E. Black Women and the State.**

Same as Anthropology 324L (Topic 78), Latin American Studies 324L (Topic 17), and Women's and Gender Studies 340 (Topic 7). Surveys black women's experiences living with and confronting state oppression around the world. Takes an historical, social, and theoretical look at the roots of this oppression and inequality, and how black women have chosen to respond to it locally and globally. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360E, 372F (Topic 11), 372F (Topic 12), Anthropology 324L (Topic 78), Latin American Studies 324L (Topic 17), Women's and Gender Studies 340 (Topic 7), 340 (Topic 63). Prerequisite: Upper-division standing.

### **AFR 360F. Urban Unrest.**

Same as American Studies 321 (Topic 8), Anthropology 324L (Topic 46), Asian American Studies 330G, and Urban Studies 327U. Analysis of the roots of urban unrest, exploring a range of origins: joblessness, state violence, white flight, backlash against civil rights gains, new immigration, and interracial strife. Beyond race and class, subjects include exploring unrest as a mode of pushing the normative boundaries of gender and sexuality in public space. Course material will draw from film, literature, history, geography, and anthropology. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360F, 372F (Topic 13), American Studies 321 (Topic 8), Anthropology 324L (Topic 46), Asian American Studies 330 (Topic 6), 330G, Urban Studies 327U, 354 (Topic 14). Prerequisite: Upper-division standing.

### **AFR 360G. Blacks and Asians: Race and Social Movements.**

Same as Anthropology 324L (Topic 77) and Asian American Studies 330D. Examines the relations between Asians and Blacks in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360G, 374D (Topic: Blacks/Asians: Race/Social Movements), 374D (Topic 19), Anthropology 324L (Topic: Blacks/Asians: Race/Social Movements), 324L (Topic 77), Asian American Studies 330 (Topic: Blacks/Asians: Race/Social Movements), 330 (Topic 3), 330D. Prerequisite: Upper-division standing.

### **AFR 360I. Black Freedom Movement.**

Same as American Studies 324D and Latin American Studies 322G. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360I, 372C (Topic: Black Freedom Movement), American Studies 321 (Topic: Black Freedom Movement), 324D, Latin American Studies 322 (Topic: Black Freedom Movement), 322G. Prerequisite: Upper-division standing.

### **AFR 360J. Migration Crisis.**

Same as Asian American Studies 330N, Mexican American Studies 364J, and Race, Indigeneity, and Migration 330N. Three lecture hours a week

for one semester. Only one of the following may be counted: African and African Diaspora Studies 360J, 374D (Topic: Migration Crisis), Asian American Studies 330N, 335 (Topic: Migration Crisis), Mexican American Studies 364J, 374 (Topic: Migration Crisis), Race, Indigeneity, and Migration 330N. Prerequisite: Upper-division standing.

**AFR 361K. Performing Race: African American Literary Performance.**

Study of the criticism and performance of modern African American drama. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**AFR 370. Topics in African and African Diaspora Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**AFR 373. Independent Research.**

Supervised individual research on a problem in African and African diaspora studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing, African and African Diaspora Studies 301 or 303, and written consent of the supervising faculty member on forms available in the department office for that purpose.

**AFR 375. Community Internship.**

Internship in a community organization that facilitates the economic, political, and social development of Austin's African American community. Students participate in research projects under the supervision of a faculty member. Approximately eight hours of fieldwork a week for one semester. Additional lecture hours may be required. Prerequisite: Upper-division standing, African and African Diaspora Studies 301, and consent of instructor.

**AFR 376. Senior Seminar.**

Restricted to majors in African and African diaspora studies. A capstone course focusing on black intellectual traditions. Three lecture hours a week for one semester. Prerequisite: Completion of seventy-five semester hours of college coursework, African and African Diaspora Studies 301, and consent of instructor.

**AFR 679H. Honors Tutorial Course.**

For honors candidates in African and African diaspora studies. Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis. Conference course for two semesters. Prerequisite: For 679HA, admission to the African and African Diaspora Studies Honors Program no later than two semesters before expected graduation; for 679HB, African and African Diaspora Studies 679HA. A University grade point average of at least 3.00 and a grade point average in African and African diaspora studies of at least 3.50 are required for admission to the African and African Diaspora Studies Honors Program.

**Graduate Courses**

**AFR 380. Introduction to Policy Research.**

Introduction to the tools needed to understand policy issues and analysis with respect to contemporary case examples. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**AFR 380C. Marginalized Communities and Policy Development.**

An exploration of how different racial groups in the United States have been historically and are presently marginalized through larger political and social systems, and how these systems have allowed groups to attain and maintain power and privilege in the United States. Three

lecture hours a week for one semester. Offered on the letter-grade basis only.

**AFR 380D. Race, Ethnicity, and Gender Policies.**

An exploration of the development of race, ethnicity, and gender theories and their application to social issues, policy development, and policy implementation. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**AFR 382. Race and the Urban Crisis.**

Examines the roots of the urban crisis, or the decline of U.S. and global cities in the post-World War II era, and begins with the premise that the story of the urban crisis is simultaneously the story of racial crisis. Explores how the origins of themes such as urban unrest, concentrated poverty, the housing crisis, the drug epidemic, and welfare dependency are rooted in race, class, and spatial inequities. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**AFR 385C. Topics in Black Studies Humanities.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**AFR 386C. Topics in Black Studies Social Sciences.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**AFR 387C. Topics in Black Studies Fine Arts and Expressive Culture.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**AFR 390. Black Studies Theory I.**

An exploration of the innovative, complex, and distinctive African diaspora social structures and cultural traditions, as well as the historical, cultural, political, economic, and social development of people of African descent. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**AFR 391. Black Studies Methods.**

A survey of seminal black studies texts and methods that have transformed the social sciences, humanities, and fine arts in producing a distinct black studies epistemology. Explores what black studies scholars have done to transform traditional methods and disciplines in pursuit of a distinct black studies methodology. Three lecture hours a week for one semester. African and African Diaspora Studies 381 (Topic: Black Studies: Theory and Methods) and 391 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**AFR 392. Black Studies Theory II.**

An in-depth exploration of the innovative, complex, and distinctively African diaspora social structures and cultural traditions, as well as the historical, cultural, political, economic, and social development of people of African descent. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and African and African Diaspora Studies 390.

**AFR 195P, 395P. Special Subjects in Professionalization in African and African Diaspora Studies.**

Advanced seminar designed to introduce students to African and African diaspora studies and the skills needed in this field; including writing and revision, competitive and successful applications for grants and fellowships, and development and preparation of a dissertation proposal. For each semester hour of credit earned, one lecture hour a week for one

semester. May be repeated for credit. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

#### **AFR 395Q. Qualifying Examination Preparation.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **AFR 396. Conference Course in Black Studies.**

Individual instruction in specialized problems of advanced research in black studies. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the department.

#### **AFR 397R. Literature Review.**

Preparation of a report to be counted toward the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in African and African diaspora studies and consent of the supervising instructor and the graduate adviser.

#### **AFR 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in African and African diaspora studies; for 698B, African and African Diaspora Studies 698A.

#### **AFR 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in African and African diaspora studies, African and African Diaspora Studies 397R, and consent of the supervising instructor and the graduate adviser.

#### **AFR 398T. Supervised Teaching in African and African Diaspora Studies.**

Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **AFR 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

### **Professional Courses**

## **Air Force Science Courses**

### **Air Force Science: AFS**

#### **Lower-Division Courses**

##### **AFS 100. Leadership Laboratory.**

Various leadership techniques, including drill and ceremonies, customs and courtesies, and uniform standards. Two laboratory hours a week for one semester. Offered on the pass/fail basis only.

##### **AFS 102K. The Foundations of the United States Air Force I.**

Provides an introduction to the Air Force (AF), allowing students to examine general aspects of the Department of the Air Force, AF Leadership, AF benefits, and opportunities for AF officers; lays the foundation for becoming an Airman, including AF customs and courtesies, AF dress and appearance, team building, communication skills, AF Core values, and more. Provides a knowledge-level understanding of United States military operations, principles of war, and airpower from an institutional, doctrinal, and operational perspective.

One lecture hour a week for one semester. Offered in the fall semester only. Prerequisite: Concurrent enrollment in Air Force Science 100.

##### **AFS 102L. The Foundations of the United States Air Force II.**

Continuation of Air Force Science 102K. One lecture hour a week for one semester. Prerequisite: Concurrent enrollment in Air Force Science 100.

##### **AFS 111K. The Evolution of USAF Air and Space Power I.**

Examines general aspects of the operational employment of air and space power through a historical and institutional lens. Utilizing these perspectives, the course examines principles of war and tenets of air and space power, summarizes the importance of joint operations to the military operating environment, and explores concepts of interpersonal leadership through the use of operational examples. One lecture hour a week for one semester. Prerequisite: Concurrent enrollment in Air Force Science 100.

##### **AFS 111L. The Evolution of USAF Air and Space Power II.**

Continuation of Air Force Science 111K. One lecture hour a week for one semester. Offered in the spring semester only. Prerequisite: Concurrent enrollment in Air Force Science 100.

### **Upper-Division Courses**

##### **AFS 120L. Leadership Laboratory.**

Leadership laboratory course for upper-division students. Further development of leadership skills through leadership positions within the cadet corps. Includes training of freshman and sophomore students as well as a practicum in Air Force unit operation. Two laboratory hours a week for one semester. Offered on the pass/fail basis only.

##### **AFS 321. Air Force Leadership Studies I.**

Study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required of an Air Force officer. Case studies throughout the course examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. Three lecture hours a week for one semester. Prerequisite: Air Force Science 102K, 102L, 111K, and 111L; concurrent enrollment in Air Force Science 120L; and completion of a field training course or equivalent ROTC or military training.

##### **AFS 322. Air Force Leadership Studies II.**

Continuation of Air Force Science 321. Three lecture hours a week for one semester. Offered in the spring semester only. Prerequisite: Air Force Science 321 and concurrent enrollment in Air Force Science 120L.

##### **AFS 333. Senior Air Force Studies I.**

Examines national security policy making, decision, and execution processes, regional studies, advanced leadership ethics, and Air Force doctrine. Special subjects of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. Three lecture hours a week for one semester. Air Force Science 331 and 333 may not both be counted. Prerequisite: Air Force Science 322 and concurrent enrollment in Air Force Science 120L.

##### **AFS 335. Senior Air Force Studies II.**

Continuation of AFS 333. Three lecture hours a week for one semester. Air Force Science 332 and 335 may not both be counted. Prerequisite: Air Force Science 333, and concurrent enrollment in Air Force Science 120L or consent of the department chair.

## Graduate Courses

## Professional Courses

# American Sign Language Courses

## American Sign Language: ASL

### Lower-Division Courses

#### **ASL 601C. Accelerated First-Year American Sign Language.**

Introduction to American Sign Language and its vocabulary and sentence structure. A six-hour course comparable to American Sign Language 506 and 507. Six lecture hours a week for one semester. Only one of the following may be counted: American Sign Language 601C, 601D, 506. American Sign Language 601C and 507 may not both be counted. Offered on the letter-grade basis only.

#### **ASL 601D. American Sign Language I: Beginning.**

This course focuses on the development of beginner-level comprehension and production skills in American Sign Language. Students learn how to attend to visual language and use their hands and body for producing ASL constructions. Elementary vocabulary and grammar is covered, along with information about Deaf culture. Six lecture hours a week for one semester. Only one of the following may be counted: American Sign Language 601C, 601D, 506. American Sign Language 601D and 507 may not both be counted. Offered on the letter-grade basis only.

#### **ASL 610D. American Sign Language II: Beginning.**

Focuses on the development of intermediate-level proficiency in ASL. An introduction to more complex grammatical constructions with the goal of engaging in conversations in ASL on a variety of topics. Examines the historical aspects of the Deaf community and related themes. Six lecture hours a week for one semester. Only one of the following may be counted: American Sign Language 610D, 611C, 312K. American Sign Language 507 and 610D may not both be counted. Offered on the letter-grade basis only. Prerequisite: American Sign Language 601D or 507 with a grade of at least C.

#### **ASL 311D. American Sign Language III: Intermediate.**

Focuses on maintaining and building upon a student's intermediate ASL skills. Grammar coverage includes complex constructions that involve the signing space, and vocabulary building includes comparisons between English words and ASL signs in order for the learner to make appropriate vocabulary choices in their ASL production. Complex questions facing the contemporary Deaf community are discussed. Three lecture hours a week for one semester. American Sign Language 311D and 312L may not both be counted. American Sign Language 611C and 311D may not both be counted. Offered on the letter-grade basis only. Prerequisite: American Sign Language 601C, 610D, or 312K with a grade of at least C.

## Upper-Division Courses

#### **ASL 320. Advanced American Sign Language Conversation.**

Advanced development of conversational skills in American Sign Language, with a focus on sophisticated linguistic structures and important issues in Deaf studies. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: American Sign Language 311D or 312L with a grade of at least C.

#### **ASL 326. Sign Languages and Signing Communities.**

Same as Linguistics 350 (Topic 3: Sign Languages and Signing Communities). Examines the grammar of signed languages, their use in signing communities, and the acquisition of signed languages as first languages. No knowledge of American Sign Language is required.

Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upper-division standing.

#### **ASL 336. Introduction to Sign Interpreting.**

Introduction to sign interpreting from American Sign Language into English and from English into American Sign Language. Topics include the ethics of interpreting and the problems that arise in interpreting in different social and professional situations. Three lecture hours a week for one semester. Prerequisite: American Sign Language 311D or 312L with a grade of at least C.

#### **ASL 350. Topics in American Sign Language, Deaf Studies, and Interpreting.**

Three lecture hours a week for one semester. Additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: American Sign Language Literature.** Examines American Sign Language literature; includes narratives, language games, and poetry. Three lecture hours a week for one semester. American Sign Language 350 (Topic: American Sign Language Literature) and 350 (Topic 1) may not both be counted. Additional prerequisite: American Sign Language 610D with a grade of at least C, or credit or registration in American Sign Language 311D or 312L.

#### **ASL 352. Deaf Culture.**

Introduction to aspects of the culture of Deaf people, including their history, language, and contributions to the United States and/or to other countries. Themes explored include the role of educational institutions within Deaf networks and linguistic, ethnic, and cultural diversity throughout the community. Three lecture hours a week for one semester. American Sign Language 350 (Topic: Deaf Culture) and 352 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

#### **ASL 357. Undergraduate Research.**

Supervised research experience. Individual instruction. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, American Sign Language 601D with a grade of at least B, and consent of instructor.

## Graduate Courses

#### **ASL 395. Conference Course in American Sign Language.**

Supervised research. Individual instruction. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

#### **ASL 395C. American Sign Language for Graduate Students I.**

Beginning language instruction in American Sign Language for graduate students. Individual instruction. May not be counted toward a graduate degree in linguistics. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ASL 395D. American Sign Language for Graduate Students II.**

Intermediate language instruction in American Sign Language for graduate students. Individual instruction. May not be counted toward a graduate degree in linguistics. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, American Sign Language 395C or the equivalent, and consent of the graduate adviser.

## **ASL 395E. American Sign Language for Graduate Students III.**

Advanced language instruction in American Sign Language for graduate students. Individual instruction. May not be counted toward a graduate degree in linguistics. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, American Sign Language 395D or the equivalent, and consent of the graduate adviser.

## **Professional Courses**

# **American Studies Courses**

## **American Studies: AMS**

### **Lower-Division Courses**

#### **AMS 310. Introduction to American Studies.**

Same as History 315G. An interdisciplinary introduction to the historical exploration of American culture. Three lecture hours a week for one semester. American Studies 310 and History 315G may not both be counted.

#### **AMS 311S. Introductory Seminar in American Studies.**

Writing, reading, and discussion on an American studies topic, with emphasis on the evaluation of information, analytical reading, and critical writing. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **AMS 315. Topics in American Life.**

Interdisciplinary exploration of American cultural and intellectual life. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Introduction to Asian American Studies.** Same as Asian American Studies 301. Introduces the interdisciplinary study of Asian immigrants and Asian Americans in the United States. Explores key concepts, including immigration history, identity and community formation, cultural representation, and the intersections of race, class, gender, and sexuality. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Introduction to Asian American Studies), 315 (Topic 1), Asian American Studies 301, Sociology 308 (Topic: Introduction to Asian American Studies).

**Topic 2: Mixed Race Identities.** Same as Asian American Studies 310 (Topic 3). Analyzes the historical and contemporary significance of issues of "race" and "mixing" in a North American context. Subjects include the situation of "mixed race" people throughout United States history; historical policies that have shaped racial formation in the United States; comparative conceptions of "mixed" people transnationally; and racial, ethnic, and cultural identity. Only one of the following may be counted: American Studies 315 (Topic: Mixed Race and the Media), 315 (Topic 2), Asian American Studies 310 (Topic: Mixed Race and the Media), 310 (Topic 3).

**Topic 3: Race, Immigration, and Family.** Same as Asian American Studies 310 (Topic 5) and Women's and Gender Studies 301 (Topic 24). Introduction to family systems in the United States in a post-WWII framework with a central focus on Asian Americans. Students will investigate how gender, race, and ethnicity intersect and inform our understanding of the institution of the family. Only one of the following may be counted: American Studies 315 (Topic: Alternative Family Systems), 315 (Topic 3), Asian American Studies 310 (Topic: Alternative Family Systems), 310 (Topic 5), Women's and Gender Studies 301 (Topic: Alternative Family Systems), 301 (Topic 24).

**Topic 5: History of Religion in the United States.** Same as History 317L (Topic 16) and Religious Studies 316C. Explores instances of religious dominance and religious diversity in United States history.

Moving from the pre-colonial period to the present, it examines the changing circumstances of several religious communities, including American Indians and Puritans, Protestant evangelicals, Mormons, Roman Catholics, Jews, Muslims, and Hindus. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic 5), History 317L (Topic 16), Religious Studies 316C, 316U (Topic 1).

**Topic 6: American Jews: The Yiddish Experience.** Same as German, Scandinavian, and Dutch Studies 310 (Topic 1), Jewish Studies 311 (Topic 9), and Religious Studies 316E. Focuses on over a century of Yiddish-based contributions to American literature, music, and film, including works by Isaac Bashevis Singer, Michael Chabon, Woody Allen, and the Marx Brothers. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic 4), 315 (Topic 6); German, Scandinavian, and Dutch Studies 310 (Topic 1); Jewish Studies 311 (Topic 6), 311 (Topic 9); Religious Studies 313 (Topic 1), 316K (Topic 2), 316E.

**Topic 7: Asian American Film History.** Same as Asian American Studies 310 (Topic 6). Only one of the following may be counted: American Studies 315 (Topic: Asian American Film History), American Studies 315 (Topic 7), Asian American Studies 310 (Topic: Asian American Film History), Asian American Studies 310 (Topic 6), Radio-Television-Film 301N (Topic: Asian American Film History).

**Topic 8: Germany and Globalization.** Same as European Studies 308 (Topic 1) and German, Scandinavian, and Dutch Studies 311F. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Germany and Globalization), 315 (Topic 8), European Studies 308 (Germany and Globalization), 308 (Topic 1), German, Scandinavian, and Dutch Studies 310 (Topic: Germany and Globalization), 311F.

#### **AMS 315C. Movies Go To War.**

Same as Comparative Literature 305 (Topic 3), European Studies 307 (Topic 4), and German, Scandinavian, and Dutch Studies 311C. A comparison of films from various nations about major twentieth century wars to the historical facts of the conflicts as practicums in critical comparative analysis of histories as representations. Only one of the following may be counted: American Studies 315 (Topic: Movies Go to War, World War I to Vietnam), 315C, Comparative Literature 305 (Topic: Movies Go to War, World War I to Vietnam), 305 (Topic 3), European Studies 307 (Topic: Movies Go to War, World War I to Vietnam), 307 (Topic 4), German, Scandinavian, and Dutch Studies 311C, Germanic Civilization 311 (Topic 2: Movies Go to War, World War I to Vietnam).

#### **AMS 315D. Anthropology of Race and Ethnicity: An Introduction.**

Same as African and African Diaspora Studies 315L and Anthropology 310L (Topic 2). Examines the social importance of race and ethnicity both in America and around the world. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315L, 317D (Topic 2), American Studies 315D, Anthropology 310L (Topic 2).

#### **AMS 315F. Native American Literature and Culture.**

Same as English 314V (Topic 5: Native American Literature and Culture). Studies Native American literature from different regions and cultures and considers this literary tradition in tribal national and United States national contexts. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Native American Literature and Culture), 315F, English 314V (Topic 5). Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

**AMS 315G. Introduction to East Austin Ethnography.**

Same as African and African Diaspora Studies 315C and Anthropology 310E. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315C, 317D (Topic: Intro to East Austin Ethnography), American Studies 315 (Topic: Intro to East Austin Ethnography), 315G, Anthropology 310E, 310L (Topic: Intro to East Austin Ethnography).

**AMS 315J. Rights in Modern America.**

Same as African and African Diaspora Studies 316C, History 317L (Topic 10), and Women's and Gender Studies 301 (Topic 32). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 316C, 317D (Topic: Rights in Modern America), American Studies 315 (Topic: Rights in Modern America), 315J, History 317L (Topic: Rights in Modern America), 317L (Topic 10), Women's and Gender Studies 301 (Topic: Rights in Modern America), 301 (Topic 32).

**AMS 315K. The Revolution Will Be Dramatized.**

Same as African and African Diaspora Studies 315E, Theatre and Dance 305S (Topic 2), and Women's and Gender Studies 301 (Topic 25). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315E, 317F (Topic: The Revolution Will Be Dramatized), American Studies 315 (Topic: The Revolution Will Be Dramatized), 315K, Theatre and Dance 305S (Topic 2), 311T (Topic: The Revolution Will Be Dramatized), Women's and Gender Studies 301 (Topic: The Revolution Will Be Dramatized), 301 (Topic 25).

**AMS 315L. Toni Morrison and August Wilson.**

Same as African and African Diaspora Studies 315F, Theatre and Dance 305S (Topic 3), and Women's and Gender Studies 301 (Topic 26). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315F, 317F (Topic: Toni Morrison and August Wilson), American Studies 315 (Topic: Toni Morrison and August Wilson), 315L, Theatre and Dance 305S (Topic 3), 311T (Topic: Toni Morrison and August Wilson), Women's and Gender Studies 301 (Topic: Toni Morrison and August Wilson), 301 (Topic 26).

**AMS 315M. Performing Blackness.**

Same as African and African Diaspora Studies 315D and Women's and Gender Studies 301 (Topic 8). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315D, 317F (Topic: Performing Blackness), American Studies 315 (Topic: Performing Blackness), 315M, Theatre and Dance 311T (Topic: Performing Blackness), Women's and Gender Studies 301 (Topic: Performing Blackness), 301 (Topic 8).

**AMS 315N. Latina and Latino Media and Popular Culture.**

Same as Mexican American Studies 318C and Women's and Gender Studies 301 (Topic 30). Explore Latina/o media and popular culture from 1950 to the present. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Latina/o Med/Pop Cul 1950-Pres), 315N, Mexican American Studies 318C, 319 (Topic: Latina/o Med/Pop Cul 1950-Pres), Women's and Gender Studies 301 (Topic: Latina/o Med/Pop Cul 1950-Pres), 301 (Topic 30).

**AMS 315O. Introduction to Native American Histories.**

Same as History 317L (Topic 8). Examine the history of Native American societies in North America from the earliest records to the present. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Intro to Native Am Histories), 315 (Topic: Intro to Amer Indian History), 315O, History 317L (Topic 8).

**AMS 315P. Building America: Engineering, Society, and Culture, 1868-1980.**

Same as History 317L (Topic 14). Examines building in American society from the late 1860s to 1980. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Building America), 315P, History 317L (Topic 14).

**AMS 315R. Race, Deportation, and Diaspora.**

Same as African and African Diaspora Studies 316D, Asian American Studies 316D, and Latin American Studies 310F. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 310 (Topic: Race, Deportation, Diaspora), 316D, 317D (Topic: Race, Deportation, Diaspora), American Studies 315 (Topic: Race, Deportation, Diaspora), 315R, Asian American Studies 310 (Topic: Race, Deportation, Diaspora), 316D, Latin American Studies 310 (Topic: Race, Deportation, Diaspora), 310F.

**AMS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in American Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**Upper-Division Courses****AMS 321. Studies in American Societies.**

A study of America through its geography, language, government, or cultures. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

**Topic 3: Native American Cultures North of Mexico.** Same as Anthropology 336L.

**Topic 4: America and the Holocaust.** Same as History 356R and Jewish Studies 365 (Topic 1). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic 4), 370 (Topic: America and the Holocaust), History 350L (Topic: America and the Holocaust), 356R, 365G (Topic: America and the Holocaust), Jewish Studies 361 (Topic: America and the Holocaust), 365 (Topic 1), Liberal Arts Honors 350 (Topic: America and the Holocaust). Additional prerequisite: Upper-division standing.

**Topic 6: Race, Gender, and Surveillance.** Same as African and African Diaspora Studies 360D, Sociology 322V, and Women's and Gender Studies 322J. Overview of theories in the sociology of social control, with a focus on risk, power, ethics, and surveillance. Examines historical transformations in social control and the distributions of power in the United States and global contexts, with attention to race, gender, and class. Subjects include: the transatlantic slave trade; prisons and punishment; the gaze, voyeurism, and reality television watching; the Internet; travel and state borders; privacy; and biometrics and the body. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360D, 372C (Topic 12), American Studies 321 (Topic 6), Sociology 322V, Women's and Gender Studies 322 (Topic 8), 322J. Additional prerequisite: Upper-division standing.

**Topic 7: Social Movements.** Same as Sociology 352. Characteristics of crowds, publics, and social movements; their role in social organization and social change. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Social Movements), American Studies 321 (Topic 7), Sociology 352. Additional prerequisite: Upper-division standing.

**Topic 8: Urban Unrest.** Same as African and African Diaspora Studies 360F, Anthropology 324L (Topic 46), Asian American Studies 330G, and Urban Studies 327U. Analysis of the roots of urban unrest, exploring a range of origins: joblessness, state violence, white flight, backlash against civil rights gains, new immigration, and interracial strife. Beyond race and class, subjects include exploring unrest as a mode of pushing the normative boundaries of gender and sexuality in public space. Course material will draw from film, literature, history, geography, and anthropology. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360F, 372F (Topic 13), American Studies 321 (Topic 8), Anthropology 324L (Topic 46), Asian American Studies 330 (Topic 6), 330G, Urban Studies 327U, 354 (Topic 14). Additional prerequisite: Upper-division standing.

**Topic 9: The United States in the Civil Rights Era.** Same as African and African Diaspora Studies 351L and History 356P. Examines United States history in the post-World War II era, including how civil rights and other racial issues helped shape the politics, popular culture, and social life of this period. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351L, 374D (Topic 17), American Studies 321 (Topic 9), History 356P, Mexican American Studies 374 (Topic 36). Additional prerequisite: Upper-division standing.

**Topic 10: Women and Social Movements in the Twentieth-Century United States.** Same as African and African Diaspora Studies 351C, History 365G (Topic 8), and Women's and Gender Studies 340 (Topic 53). Examines women's participation in well-known and lesser-known social movements during the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351C, 372C (Topic: Women and Social Movements in US), 372C (Topic 7), American Studies 321 (Topic 10), History 365G (Topic 8), Women's and Gender Studies 340 (Topic 53). Additional prerequisite: Upper-division standing.

**Topic 11: The Vietnam Wars.** Same as History 365G (Topic 4). Introduction to the complex and controversial history of the wars fought in Vietnam from 1941 to the 1980s. Only one of the following may be counted: American Studies 321 (Topic: Vietnam Wars), 321 (Topic 11), Asian Studies 372 (Topic: Vietnam Wars), History 365G (Topic: Vietnam Wars), 365G (Topic 4).

**Topic 12: Race, Internet, and Social Media.** Same as Asian American Studies 320G. Explores the critical, theoretical and practical analysis of race and new media. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Race, Internet & Social Media), American Studies 321 (Topic 12), Asian American Studies 320 (Topic: Race, Internet & Social Media), Asian American Studies 320 (Topic 7), 320G, Radio-Television-Film 359 (Topic: Race, Internet & Social Media). Additional prerequisite: Upper-division standing.

#### **AMS 321E. African American History to 1860.**

Same as African and African Diaspora Studies 357C and History 357C. Review of West African origins; New World settlement patterns, social life, and culture; discussion of the Atlantic slave trade, the development of capitalism and plantation slavery, and the origins of racism. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357C, American Studies 321 (Topic: African American History to 1860), 321E, History 357C. Prerequisite: Upper-division standing.

#### **AMS 321F. African American History since 1860.**

Same as African and African Diaspora Studies 357D, History 357D, and Urban Studies 327D. Survey of the history of African Americans in the United States from 1860 to the present: Emancipation, Reconstruction politics, migration and urbanization, and the evolution of African American culture; kinds of sources and methods valuable for analyzing

African American life and culture. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357D, American Studies 321 (Topic: African American History since 1860), 321F, History 357D, Urban Studies 327D, 353 (Topic 1). Prerequisite: Upper-division standing.

#### **AMS 321G. Native Americans in Texas.**

Same as Anthropology 326C. Studies the history of Native Americans in Texas using concepts and evidence from anthropology, history, archaeology, historical geography, and Native American studies. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Native Americans in Texas), 321G, Anthropology 324L (Topic: Native American in Texas). Prerequisite: Upper-division standing.

#### **AMS 321J. African American Social and Political Thought.**

Same as African and African Diaspora Studies 351M, Core Texts and Ideas 326J, and Government 335G. Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351M, 374D (Topic 21), American Studies 321 J, Core Texts and Ideas 326 (Topic 3), 326J, Government 335G, 335M (Topic 10). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

#### **AMS 321K. European Immigration to Texas in the Nineteenth Century.**

Same as European Studies 346 (Topic 33) and German, Scandinavian, and Dutch Studies 361S. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: European Immigration to Texas in the Nineteenth Century), 321K, European Studies 346 (Topic: European Immigration to Texas in the Nineteenth Century), 346 (Topic 33), German, Scandinavian, and Dutch Studies 360 (Topic: European Immigration to Texas in the Nineteenth Century), 361S. Prerequisite: Upper-division standing.

#### **AMS 321L. German Scholars: US Exile.**

Same as Comparative Literature 323 (Topic 56), European Studies 346 (Topic 34), and German, Scandinavian, and Dutch Studies 361Q. Examine the migration of established European intellectuals into the US, due to the Second World War. Explore how they worked against their persecutors for their own cultural heritage and to influence US intellectual life. Investigate the ethical dilemmas faced in transplanting their lives and projects into new contexts. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: German Scholars: US Exile), 321L, Comparative Literature 323 (Topic: German Scholars: US Exile), 323 (Topic 56), European Studies 346 (Topic: German Scholars: US Exile), 346 (Topic 34), German, Scandinavian, and Dutch Studies 360 (Topic: German Scholars: US Exile), 361Q. Prerequisite: Upper-division standing.

#### **AMS 321N. Rethinking Blackness.**

Same as African and African Diaspora Studies 350M and Women's and Gender Studies 340 (Topic 71). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350M, 372C (Topic: Rethinking Blackness), American Studies 321 (Topic: Rethinking Blackness), 321N, English 376M (Topic: Rethinking Blackness), Theatre and Dance 357T (Topic: Rethinking Blackness), Women's and Gender Studies 340 (Topic: Rethinking Blackness), 340 (Topic 71). Prerequisite: Upper-division standing.

#### **AMS 321O. Debt and Colonialism in the Caribbean.**

Same as African and African Diaspora Studies 345O, History 345O, and Latin American Studies 366 (Topic 43). Examine the role that debt has

played in the formation of colonial and neocolonial practices in the Caribbean region. Take a broad approach to the concept of debt in order to explore the financial and monetary dynamics of debt, but also the political and cultural implications of debt. Focus in particular on debt as justification in the furtherance of colonialism throughout the Caribbean. Engage in a historical examination of the United States' colonial projects and military interventions in the region throughout the 20th and into the 21st centuries. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 3450, 374E (Topic: Debt/Colonialism Caribbean), American Studies 321 (Topic: Debt/Colonialism Caribbean), 321O, History 3450, 363K (Topic: Debt/Colonialism Caribbean), Latin American Studies 366 (Topic: Debt/Colonialism Caribbean), 366 (Topic 43). Prerequisite: Upper-division standing.

#### **AMS 321P. Race And Place.**

Same as African and African Diaspora Studies 350L. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350L, 372C (Topic: Race And Place), American Studies 321 (Topic: Race And Place), 321P, Geography 356T (Topic: Race And Place). Prerequisite: Upper-division standing.

#### **AMS 321Q. Writing for Black Performance.**

Same as African and African Diaspora Studies 330F, Creative Writing 325T, and Theatre and Dance 357T (Topic 5). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330F, 372E (Topic: Writing for Black Performance), American Studies 321 (Topic: Writing for Black Performance), 321Q, Creative Writing 325T, English 376M (Topic: Writing for Black Performance), Theatre and Dance 357T (Topic: Writing for Black Performance), 357T (Topic 5). Prerequisite: Upper-division standing.

#### **AMS 321R. Politics of Memory: Germany and the United States.**

Same as European Studies 348 (Topic 9), German, Scandinavian, and Dutch Studies 361U, and Government 368U. Examine the role that narratives of the past play in politics and policies in both Germany and the United States, by engaging with key theoretical and empirical debates. Focus on the role of memory in German and US immigration politics. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Politics Of Memory: GER/US), 321R, European Studies 348 (Topic: Politics Of Memory: GER/US), 348 (Topic 9), German, Scandinavian, and Dutch Studies 360 (Topic: Politics Of Memory: GER/US), 361U, Government 365N (Topic: Politics Of Memory: GER/US), 368U. Prerequisite: Upper-division standing.

#### **AMS 321S. Cultural Heritage on Display.**

Same as Anthropology 325F. Explore the public construction and display of traditional American folk culture by studying popular folklife-oriented tourist sites. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Cultural Heritage on Display), 321S, Anthropology 325F, 325L (Topic 11). Prerequisite: Upper-division standing.

#### **AMS 321T. Asian American Jurisprudence.**

Same as Asian American Studies 325N and Government 357V. Examine the historical development of United States law and its relationship to Asian Americans, and of Asian American jurisprudence as an independent field of legal scholarship. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic 5), 321T, Asian American Studies 325 (Topic 5), 325N, Government 357M (Topic 9), 357V. Prerequisite: Upper-division standing.

#### **AMS 321U. Native American Cultures of the Southwest.**

Same as Anthropology 322I. Explore the diverse Native cultures of the Southwest, focusing on the philosophical underpinnings and the frameworks of meaning and moral responsibility of indigenous peoples of the American Southwest. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Native American Cultures of the Southwest), 321 (Topic 1), 321U, Anthropology 322M (Topic 3), 322M (Topic 4), 322I. Prerequisite: Upper-division standing.

#### **AMS 321V. Religion and Film.**

Same as Religious Studies 346E. Survey of representations of religious beliefs, practices, persons, and institutions in popular film. Examination of film as a vehicle to reflect how a shared religious imagination shaped the way Americans understand themselves. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Religion and Film), 321V, Religious Studies 346 (Topic: Religion and Film), 346E. Prerequisite: Upper-division standing.

#### **AMS 321W. Memories of War.**

Same as European Studies 346 (Topic 42), German, Scandinavian, and Dutch Studies 362D, and Government 362S. Consider the ways the wars of the twentieth and twenty-first century are being remembered in Germany and the United States - from poems, novels and films to monuments and the controversial debates about military conflicts that the two countries have been involved in. Utilize theories of social memory, and concepts of individual and social mourning, to analyze how war affects individual lives, how societies mourn, and how remembering war impacts national identity and politics. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Memories of War), 321W, European Studies 346 (Topic: Memories of War), 346 (Topic 42), German, Scandinavian, and Dutch Studies 360 (Topic: Memories of War), 362D, Government 362S. Prerequisite: Upper-division standing.

#### **AMS 322D. Mexican American Studies at UT.**

Same as History 365G (Topic 17) and Mexican American Studies 320I. Trace the origins and development of Mexican American Studies at the national, regional, and local levels. Collaborate to help preserve and recognize the significance of Mexican American Studies at the University in historical and contemporary contexts. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: 50 Yrs Mex Am Studies at UT), 322D, History 365G (Topic: 50 Yrs Mex Am Studies at UT), 365G (Topic 17), Mexican American Studies 320I, 374 (Topic: 50 Yrs Mex Am Studies at UT). Prerequisite: Upper-division standing.

#### **AMS 324C. Black Middle Class.**

Same as African and African Diaspora Studies 350C and Women's and Gender Studies 340 (Topic 83). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350C, 372C (Topic: Black Middle Class), American Studies 321 (Topic: Black Middle Class), 324C, Women's and Gender Studies 340 (Topic: Black Middle Class), 340 (Topic 83). Prerequisite: Upper-division standing.

#### **AMS 324D. Black Freedom Movement.**

Same as African and African Diaspora Studies 360I and Latin American Studies 322G. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360I, 372C (Topic: Black Freedom Movement), American Studies 321 (Topic: Black Freedom Movement), 324D, Latin American Studies 322 (Topic: Black Freedom Movement), 322G. Prerequisite: Upper-division standing.

**AMS 324E. The Global City.**

Same as African and African Diaspora Studies 351, Anthropology 324S, and Urban Studies 330G. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351, 374D (Topic: The Global City), American Studies 321 (Topic: The Global City), 324E, Anthropology 324L (Topic: The Global City), 324S, Urban Studies 330G, 353 (Topic: The Global City). Prerequisite: Upper-division standing.

**AMS 324F. Asian Americans in the South.**

Same as Asian American Studies 330K. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Asian Americans in the South), 324F, Asian American Studies 330 (Topic: Asian Americans in the South), 330K. Prerequisite: Upper-division standing.

**AMS 324G. Policing Latinidad.**

Same as Mexican American Studies 364E and Women's and Gender Studies 340 (Topic 95). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Policing Latinidad), 324G, Mexican American Studies 364E, 374 (Topic: Policing Latinidad), Women's and Gender Studies 340 (Topic: Policing Latinidad), 340 (Topic 95). Prerequisite: Upper-division standing.

**AMS 324I. Chicana Feminisms.**

Same as Mexican American Studies 337C and Women's and Gender Studies 340 (Topic 87). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Chicana Feminisms), 324I, Mexican American Studies 337C, 374 (Topic: Chicana Feminisms), Women's and Gender Studies 340 (Topic: Chicana Feminisms), 340 (Topic 87). Prerequisite: Upper division standing.

**AMS 324J. Austin Jews in the Civil Rights Era.**

Same as Anthropology 325U and Jewish Studies 364 (Topic 14). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: UT Jews in Civil Rights Era), 324J, Anthropology 325L (Topic: UT Jews in Civil Rights Era), 325U, Jewish Studies 364 (Topic: UT Jews in Civil Rights Era), 364 (Topic 14). Prerequisite: Upper-division standing.

**AMS 325C. Popular Music in the United States.**

Same as History 365G (Topic 2). Traces the history of popular music in the United States and its influence on American politics, economics, and culture from the 1880s to present day. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Popular Music in the US), 325C, History 365G (Topic: Popular Music in the US), 365G (Topic 2). Prerequisite: Upper-division standing.

**AMS 325E. Music and Religious Identities in the US.**

Same as Music 346R and Religious Studies 346M. Examine religious music in Christianity and Judaism in relation to communities in religious context of Europe and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 325 (Topic: Music and Religious Identities in the US), 325E, Music 346R, 376G (Topic: US Music/Religious Identity), Religious Studies 346 (Topic: Music and Religious Identities in the US), 346M. Prerequisite: Upper-division standing.

**AMS 325F. Painting in America to 1860.**

Same as Art History 339N. Painting in British colonial North America and the United States prior to the Civil War. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 325 (Topic 2), 325F, Art History 339N, 374 (Topic 1).

**AMS 325G. Painting in the United States, 1860-1913.**

Same as Art History 339P. Painting in the United States from the Civil War to the Armory Show. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 325 (Topic 3), 325G, Art History 339P, 374 (Topic 2).

**AMS 325I. The Arts of Hip Hop.**

Same as African and African Diaspora Studies 330I and Comparative Literature 323 (Topic 69). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330G, 330I, 374D (Topic: Art, Theft, and Hip-Hop), American Studies 325 (Topic: Art, Theft, and Hip-Hop), 325D, 325I, Comparative Literature 323 (Topic: Art, Theft, and Hip-Hop), 323 (Topic 53), 323 (Topic 69). Prerequisite: Upper-division standing.

**AMS 327C. Native American Religions.**

Same as Religious Studies 346D. Examination of religious developments in Native American communities from the precolonial period through the present day. Focus on the changing forms of ritual practice and the relationship between religion and community life. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Native American Religion), 327C, Religious Studies 346 (Topic: Native American Religion), 346D. Prerequisite: Upper-division standing.

**AMS 327D. United States Catholic History.**

Same as History 365G (Topic 1), Mexican American Studies 374 (Topic 37), and Religious Studies 346F. Examine how Catholicism and national identity work for Catholics in the United States, with an emphasis on Catholic women and Latino/as. Only one of the following may be counted: American Studies 327 (Topic 4), 327D, History 365G (Topic 1), Mexican American Studies 374 (Topic 37), Religious Studies 346 (Topic 5), 346F. Prerequisite: Upper-division standing.

**AMS 327E. Evangelical Christianity.**

Same as Religious Studies 346J. An introduction to the intellectual and social sources of evangelical Protestant traditions in the United States, their varieties of belief and practice, and their role in the wider Christian community and American society. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Evangelical Christianity), 327 (Topic 5), 327E, Religious Studies 346 (Topic: Evangelical Christianity), 346 (Topic 6), 346J. Prerequisite: Upper-division standing.

**AMS 327F. Religion in the American South.**

Same as Religious Studies 375S (Topic 6). Examines the social construction and cultural meaning of southern religion using fictional characterizations, philosophical reflections, historical accounts, and theoretical comparisons. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic 6), 327F, Religious Studies 375S (Topic: Religion in the American South), 375S (Topic 6). Prerequisite: Upper-division standing and at least six semester hours of coursework in religious studies.

**AMS 327G. Religion in the American West.**

Same as Religious Studies 346G. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Religion in the American West), 327 (Topic 8), 327G, Religious Studies 346 (Topic: Religion in the American West), 346G. Prerequisite: Upper-division standing.

**AMS 327I. Religion and Social Justice in United States.**

Same as Religious Studies 346R. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Religion/Social Justice US), 327I, Religious Studies 346

(Topic: Religion/Social Justice US), 346R. Prerequisite: Upper-division standing.

### **AMS 327J. Debating the Bible in the Twenty-First Century.**

Same as Core Texts and Ideas 355T and Religious Studies 346S. Examine the ways in which individuals, primarily in the United States, have regarded the Bible as relevant or irrelevant to contemporary life. Discuss contemporary controversial issues in which the Bible has played a role and how these relate to earlier controversies, such as the position of the Bible on slavery. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Debating the Bible in 21st Century), 327J, Core Texts and Ideas 355T, 375 (Topic: Debating the Bible in 21st Century), Religious Studies 346 (Topic: Debating the Bible in 21st Century), 346 (Topic 11), 346S. Prerequisite: Upper-division standing; introductory courses in the Hebrew Bible and/or New Testament recommended.

### **AMS 327K. Science, Magic, and Religion.**

Same as African and African Diaspora Studies 351S, Anthropology 324C, and Religious Studies 373L. Historical and cross-cultural overview of the constructed concepts of magic, science, and religion through comparative examinations of cultural contexts from the Islamic world, western Europe, the Caribbean, the U.S., and Mozambique. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Science/Magic/Religion), 351S, American Studies 327 (Topic: Science, Magic, Religion), 327K, Anthropology 324L (Topic: Science, Magic, & Religion), 324C, Religious Studies 373 (Topic: Science, Magic, & Religion), 373 (Topic 6), 373L. Prerequisite: Upper-division standing.

### **AMS 327L. Views of Islam in the United States.**

Same as Islamic Studies 372 (Topic 27) and Religious Studies 346T. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Views of Islam in the US), 327L, Islamic Studies 372 (Topic: Views of Islam in the US), 372 (Topic 27), Religious Studies 346 (Topic: Views of Islam in the US), 346T. Prerequisite: Upper-division standing.

### **AMS 329. Environmental History of North America.**

Same as History 350R (Topic 7) and Urban Studies 328E. The history of humanity's influence on the plants, animals, microlife, soils, water, and air of North America, and vice versa, from the arrival of the proto-Indians to the contemporary environmental crisis. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 329, History 350R (Topic 7), Urban Studies 328E, 353 (Topic 5). Prerequisite: Upper-division standing and six semester hours of coursework in history.

### **AMS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in American Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **AMS 330. Modernism in American Design and Architecture.**

Same as Art History 339Q and Urban Studies 320M. A historical survey of artifacts, buildings, and urban environments, focusing on responses to machine-age civilization. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 330, Art

History 339Q, Urban Studies 352 (Topic 5), 320M. Prerequisite: Upper-division standing.

### **AMS 355. Main Currents of American Culture to 1865.**

Same as History 355N. Traces the development of American culture and society from the colonial era until the end of the Civil War. Major themes include racial conflict, religion, slavery, the development of democracy, and cultural reform. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **AMS 356. Main Currents of American Culture since 1865.**

Same as History 356K. Traces the development of American culture and society from the end of the Civil War to the present. Major themes include racial conflict, pluralism, religion, urban development and reform, modernism, government centralization, cultural radicalism, and the rebirth of conservatism. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **AMS 358. The United States, 1920-1941.**

Same as History 355M. A history of political, economic, diplomatic, military, social, and cultural developments in the United States between the two world wars. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **AMS 370. Seminar in American Culture.**

Interdisciplinary seminar on themes in American life. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites may vary with the topic.

**Topic 1: American Cultural History of Alcohol and Drugs.** Same as History 350R (Topic 5). Study of the American use and perception of drugs, including alcohol, and how they have changed over time. Examines significant shifts in American attitudes toward individualism and social control. American Studies 370 (Topic 1) and History 350R (Topic 5) may not both be counted.

**Topic 5: Race, Law, and United States Society.** Same as African and African Diaspora Studies 360 and History 365G (Topic 13). Examines the intersection of racial ideology and legal culture in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360, 372F (Topic: Race, Law, and US Society), American Studies 370 (Topic: Race, Law, and US Society), 370 (Topic 5), History 365G (Topic: Race, Law, and US Society), 365G (Topic 13). Additional prerequisite: Upper-division standing.

**Topic 13: The Culture of Cities.** Same as Geography 356T (Topic 1) and Urban Studies 320T. Examines the social, geographical, and cultural evolution of the United States from a rural and small-town society to an urban and suburban nation. Subjects may include the segregation of public and private space; the formation of urban subcultures organized by gender, work, race, religion, and sexuality; social and spatial divisions between rich and poor and native-born and immigrant; and the increasing importance of "cultural capital" in reshaping urban politics and in conflicts over revitalization and gentrification. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic 13), Geography 356T (Topic 1), Urban Studies 320T, 354 (Topic 4). Additional prerequisite: Upper-division standing.

**Topic 17: Postmodern America.** Postmodernity considered as a means of understanding major cultural transformations since 1945 in areas such as architecture, art, criticism, film, journalism, literature, music, philosophy, photography, and political thought.

**Topic 18: The Beats and American Culture, 1945 to 1990.** Examines writers such as Kerouac, Ginsberg, and Burroughs during the immediate post-World War II era. Considers their historical origins,

their representations of society and culture, and their influence from the 1960s through the 1980s on writers and artists in a variety of fields.

**Topic 19: The Cold War and American Childhood.** Uses childhood as a focus for studying the cultural and political climate of the post-World War II era.

**Topic 20: Children's Literature and American Culture.** Examines changes in American childhood using children's literature that covers several different time periods.

**Topic 21: Society, Culture, and Politics in the 1960s.** Various social and cultural movements of the 1960s, including civil rights, the New Left, black power and other ethnic nationalisms, the peace movement, the black arts movement, guerrilla theater, psychedelic arts and the counterculture, women's liberation, gay liberation, the environmental movement, and the conservative movement.

**Topic 22: Deviance in America: An Alternative History.** Same as History 350R (Topic 6). Examines movements and individuals outside the conventional mainstream and how they reflect American ideals and dilemmas. American Studies 370 (Topic 22) and History 350R (Topic 6) may not both be counted.

**Topic 23: Memory and Place.** Same as Geography 356T (Topic 2: Memory and Place). Explores how cultural memory is produced in its various forms, from memorials, public art, and commodities to popular culture, rituals, and museums, and how public remembering is inevitably anchored in specific geographic places. Additional prerequisite: Upper-division standing.

**Topic 26: American Food.** Same as Women's and Gender Studies 345 (Topic 41: American Food). Studies diverse American food cultures from a humanities perspective, exploring connections between global, national, and local communities. Uses scholarship in the field of food studies as well as cookbooks, novels, poetry, photographs, songs, documentaries, and oral histories to investigate the past and present of American food communities.

**Topic 27: Nature and Gender in America.** Same as Women's and Gender Studies 345 (Topic 42: Nature and Gender in America). Study of the connections between nature and gender in American national narratives. Explores how Americans of differing classes, races, genders, sexual orientations, and ages have shaped and experienced changing ideas of America, wilderness, domestication, and society over time and in different regions of the country.

**Topic 28: Animals and American Culture.** Same as History 350R (Topic 9) and Women's and Gender Studies 345 (Topic 43). Explores the role of animals in American history, culture, and society. Only one of the following may be counted: American Studies 370 (Topic 28), History 350R (Topic 9), Women's and Gender Studies 345 (Topic 43).

**Topic 29: Women Radicals and Reformers.** Same as Women's and Gender Studies 345 (Topic 44: Women Radicals and Reformers). Traces traditions of women's radical activism and reform beginning with the Enlightenment and the American Revolution and continuing to the present, with concentration on the twentieth century.

**Topic 30: Women in Postwar America.** Same as History 350R (Topic 8) and Women's and Gender Studies 345 (Topic 37). Only one of the following may be counted: American Studies 370 (Topic 30), History 350R (Topic 8), Women's and Gender Studies 345 (Topic 37).

**Topic 31: Black Americans and the South.** Same as African and African Diaspora Studies 351F. Traces the post-Reconstruction conversation among black Americans over how to live in the South and make sense of its history of widespread racial violence, lynching, de jure segregation, civil rights struggles, and their legacies. Sources include authors such as Jean Toomer, Tayari Jones, and Natasha Trethewey, and fiction, speeches, newspaper accounts, photographs, paintings, poetry, and popular music, including jazz, blues, rock, rhythm and blues, and hip hop and rap. Three lecture hours a week for one semester. Only one of the following may be counted: African and

African Diaspora Studies 351F, 374D (Topic 6), American Studies 370 (Topic 31). Additional prerequisite: Upper-division standing.

**Topic 32: Slavery across Genres.** Same as African and African Diaspora Studies 351O. Uses nonfictional and fictional narrative accounts of slavery in the United States to examine the political, social, cultural, economic, and psychological aspects of the institution of slavery at different historical moments. Sources may include authors such as Frederick Douglass, Toni Morrison, William Faulkner, Harriet Beecher Stowe, and Edward P. Jones; graphic novels; conceptual art; court records; and bills of sale. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351O, 372E (Topic 2), American Studies 370 (Topic 32). Additional prerequisite: Upper-division standing

**Topic 33: Atlantic Slavery: History and Memory.** Same as African and African Diaspora Studies 351P. Charts a history of Atlantic slavery by focusing on primary sources detailing crucial events and contexts such as the Zong Massacre, the Haitian Revolution, and Dred Scott vs. Sandford, among others. Considers how historians, memoirists, fiction writers, visual and performance artists and filmmakers have come to terms with that history and its implications. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351P, 374E (Topic 3), American Studies 370 (Topic 33). Additional prerequisite: Upper-division standing.

**Topic 34: American Disasters.** Examines natural and human-made disasters as key turning points in American history. Engages with the politics of disasters, analyzing environmental contexts, grassroots activism, legislative policies, and approaches toward commemoration.

**Topic 35: American Popular Culture, 1682-Present.** Same as History 350R (Topic 19) and Women's and Gender Studies 340 (Topic 26). Explores the evolution of American popular culture and its relationship to national consolidation, and at times, disunion, over the last 330 years.

**Topic 36: Exiles, Expatriates, and Political Pilgrims.** Explores the ways in which foreign experiences formed and re-formed individuals' perspectives on the United States, the nature of their social critiques of the U.S., and Americans' experiences of other nations.

**Topic 37: The Politics of Creativity.** Interdisciplinary investigation of artists in American society and of the intersection of art and politics.

**Topic 38: Property in American Culture.** Same as African and African Diaspora Studies 350W. Explores American conceptions of property over a wide range of economic transformations from the mercantile to the digital age, with special attention to the ambiguous and tension-filled meanings of property for women, African Americans, and Native Americans. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350W, 372C (Topic 3), American Studies 370 (Topic 38). Additional prerequisite: Upper-division standing

**Topic 39: Radical Latinos.** Mexican American Studies 374 (Topic 32: Radical Latinos). Examines the social positioning and history of Latinas/os in the United States. Analyzes the histories of Latinas/os who have gone against mainstream expectations, or who have challenged or critiqued the status quo in provocative and unexpected ways. Only one of the following may be counted: American Studies 370 (Topic Radical Latinos), 370 (Topic 39), Mexican American Studies 374 (Topic: Radical Latinos), 374 (Topic 32).

**Topic 40: Southern Cultures.** Women's and Gender Studies 345 (Topic 27: Southern Cultures). Investigation of multiple, fluid, and diverse southern cultures through topics such as NASCAR, biscuits and cornbread, mega-churches, beauty pageants, jazz, country music, southern hip hop, migrant farm cultures, matzo ball soup with collards, the Trail of Tears, Gullah, Tara, Graceland, and more. Includes discussion of stereotypes and the individual truths about women, men, and southern in the context of this discussion.

**Topic 41: Vienna: Memory and the City.** Same as European Studies 346 (Topic 5), History 362C, and Urban Studies 322C. Examines the ways in which cultural memory has shaped, and continues to shape, urban life in Vienna, Austria. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic 41), European Studies 346 (Topic 5), Geography 356T (Topic: Vienna: Memory and the City), Germanic, Scandinavian, and Dutch Studies 360 (Topic: Vienna: Memory and the City), History 362C, 362G (Topic 2), Urban Studies 322C, 354 (Topic 7). Additional prerequisite: Upper-division standing.

**Topic 42: Black Political Thought.** Same as African and African Diaspora Studies 351N. Exploration of black social and political thinkers, writers, and reformers, and how their works influence the legacies of slavery, empire, and patriarchy within the United States. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351N, 372C (Topic 14), American Studies 370 (Topic 42). Additional prerequisite: Upper-division standing.

**Topic 43: Literature of Black Politics.** Same as African and African Diaspora Studies 330R. Examines the novels, plays, and critical essays of Ralph Ellison, James Baldwin, and Toni Morrison as works of democratic political theorizing and political engagement. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330R, 374F (Topic 21), American Studies 370 (Topic 43). Additional prerequisite: Upper-division standing.

**Topic 44: The Tragicomedy of American Democracy.** Same as African and African Diaspora Studies 351D and Core Texts and Ideas 326T. Examines the foundational ideas and practices essential to the unfolding of American democracy by focusing on founding documents, public speeches, major political conflicts, and canonical texts of political philosophy. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351D, 372F (Topic 15), American Studies 370 (Topic 44), Core Texts and Ideas 326 (Topic 2), 326T. Additional prerequisite: Upper-division standing.

**Topic 45: Feminist Interventions in Borderlands History.** Same as Mexican American Studies 374 (Topic 38) and Women's and Gender Studies 340 (Topic 45). Provides an in-depth understanding of the social, economic, and spatial transformations of the United States/Mexico borderlands in the nineteenth and early twentieth centuries. Only one of the following may be counted: American Studies 370 (Topic: Feminist Interventions in Borderlands History), 370 (Topic 45), Mexican American Studies 374 (Topic: Feminist Interventions in Borderlands History), 374 (Topic 38), Women's and Gender Studies 340 (Topic: Feminist Interventions in Borderlands History), 340 (Topic 45).

**Topic 47: Language, Culture, and the Texas German Experience.** Same as Anthropology 324L (Topic 55), German, Scandinavian, and Dutch Studies 351C, and Linguistics 373 (Topic 10). The evolution of the culture and language of German immigrants to Texas from the 1840s through the present and how they have influenced other ethnic groups in Texas. Three lectures a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Language, Culture, and the Texas German Experience), 370 (Topic 47), Anthropology 324L (Topic: Language, Culture, and the Texas German Experience), 324L (Topic 55), Germanic Civilization 327E (Topic 11) German, Scandinavian, and Dutch Studies 351C, Linguistics 350 (Topic: Language, Culture, and the Texas German Experience), 373 (Topic 10). Additional prerequisite: Upper-division standing.

**Topic 48: Race and Citizenship in United States History.** Same as History 350R (Topic 25) and Mexican American Studies 374 (Topic 35). Uses primary and secondary sources to analyze how race and citizenship have functioned for populations of color in the United States. Only one of the following may be counted: American Studies

370 (Topic: Race and Citizenship in United States History), 370 (Topic 48), History 350R (Topic: Race and Citizenship in United States History), 350R (Topic 25), Mexican American Studies 374 (Topic: Race and Citizenship in United States History), 374 (Topic 35).

**Topic 49: Twentieth-Century United States Lesbian and Gay History.** Same as History 365G (Topic 10) and Women's and Gender Studies 335 (Topic 18). Examines classic texts and recent and varied writings on LGBT history, focused on experiences, ideas, and conflicts that have shaped modern LGBT identities. Only one of the following may be counted: American Studies 370 (Topic: United States Lesbian and Gay History, Twentieth Century), 370 (Topic 49), History 365G (Topic: United States Lesbian and Gay History, Twentieth Century), 365G (Topic 10), Women's and Gender Studies 335 (Topic 18), 340 (Topic: United States Lesbian and Gay History, Twentieth Century).

**Topic 50: Sexual Deviance in the Twentieth-Century United States.** Same as Women's and Gender Studies 335 (Topic 4). Examines the ways that Americans have created and maintained hierarchies of power by casting certain people and sexual behaviors as unnatural and immoral since the turn of the twentieth century. Only one of the following may be counted: American Studies 370 (Topic: Sexual Deviance in the Twentieth-Century US), 370 (Topic 50), Women's and Gender Studies 335 (Topic: Sexual Deviance in the Twentieth-Century US), 335 (Topic 4). Additional prerequisite: Upper-division standing.

**Topic 51: Queer Study in Low Culture.** Same as Women's and Gender Studies 335 (Topic 7). Examines representations of sexual and gender non-conformity in popular culture since the mid-twentieth century in the United States. Only one of the following may be counted: American Studies 370 (Topic: Queer Study in Low Culture), 370 (Topic 51), Women's and Gender Studies 335 (Topic: Queer Study in Low Culture), 335 (Topic 7). Additional prerequisite: Upper-division standing.

**Topic 52: Movements for Sexual and Reproductive Justice.** Same as Women's and Gender Studies 335 (Topic 9). Charts the historical development of various struggles for sexual and reproductive justice in the United States since the nineteenth century. Only one of the following may be counted: American Studies 370 (Topic: Movements for Sexual and Reproductive Justice), 370 (Topic 52), Women's and Gender Studies 335 (Topic: Movements for Sexual and Reproductive Justice), 335 (Topic 9).

**Topic 53: Key Works in American Popular Music.** Examines individual songs as a means to understand larger trends in U.S. cultural history (including various Civil Rights movements, de-industrialization and economic dislocation, cultural polarization, anti-war movements and the backlash, etc.) with an emphasis on rock, pop, punk, rap, disco, and country music in the U.S. since 1945. Explores popular song through the lens of cultural studies, sociology, and history. American Studies 370 (Topic: Key Works in American Popular Music) and 370 (Topic 53) may not both be counted.

**Topic 54: Rethinking the 1950s: Rebels and Rejects.** Examines how the context of the Cold War influenced American culture and politics, particularly with regard to race, gender, and sexuality. Focuses on the first two decades after the end of World War II. American Studies 370 (Topic: Rethinking 1950s: Rebels & Rejects) and 370 (Topic 54) may not both be counted.

**Topic 55: Urban Slavery in the Americas.** Same as African and African Diaspora Studies 350P, History 347N, and Latin American Studies 366 (Topic 36). Examines urban slavery in the Americas. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350P, 374E (Topic: Urban Slavery in the Americas), American Studies 370 (Topic: Urban Slavery in the Americas), 370 (Topic 55), History 347N, 350L (Topic: Urban Slavery in the Americas), Latin American Studies 366 (Topic: Urban Slavery in the Americas), 366 (Topic 36). Additional prerequisite: Upper-division standing.

**Topic 56: Puerto Rico In Crisis.** Same as African and African Diaspora Studies 350K, History 347J, and Mexican American Studies 364P. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350K, 374E (Topic: Puerto Rico In Crisis), American Studies 370 (Topic: Puerto Rico In Crisis), 370 (Topic 56), History 347J, 363K (Topic: Puerto Rico In Crisis), Mexican American Studies 364P, 374 (Topic: Puerto Rico In Crisis). Additional prerequisite: Upper-division standing.

**Topic 57: Politics of Black Life.** Same as African and African Diaspora Studies 350D. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350D, 372F (Topic: Politics of Black Life), American Studies 370 (Topic: Politics of Black Life), 370 (Topic 57). Additional prerequisite: Upper-division standing.

**Topic 58: History of Black Entrepreneurship in the United States.** Same as African and African Diaspora Studies 351E and History 350R (Topic 12). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351E, 374D (Topic 2), American Studies 370 (Topic: Hist of Black Entrepren in US), 370 (Topic 58), History 350R (Topic 12). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 59: Arts and Artifacts in the Americas.** Same as History 350R (Topic 27). Surveys the changing material culture of the western hemisphere from pre-Columbian times to the beginning of the industrial revolution. Only one of the following may be counted: American Studies 370 (Topic: Arts/Artifacts in the Americas), 370 (Topic 59), History 350R (Topic: Arts/Artifacts in the Americas), 350R (Topic 27). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 60: The Civil Rights Movement from a Comparative Perspective.** Same as African and African Diaspora Studies 350U, History 350R (Topic 35), and Mexican American Studies 364C. Focuses on African American and Mexican American struggles for civil rights. Asian American and Native American movements will also be addressed. Using a comparative approach the student will consider the distinctiveness of each of these struggles while also viewing them in relation to each other. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350U, 374D (Topic: Civil Rts Mov from Comp Persp), 374D (Topic 18), American Studies 370 (Topic: Civil Rts Mov from Comp Persp), 370 (Topic 60), History 350R (Topic 35), Mexican American Studies 364C, 374 (Topic: Civil Rts Mov from Comp Persp). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 61: The History of Islam in the United States.** Same as History 350R (Topic 22), Islamic Studies 372 (Topic 21), and Religious Studies 346U. A brief introduction to Islam. Defines the role of Islam and views of Muslims in the early history of the United States, and introduces students to major issues concerning contemporary American Muslims. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: History of Islam in the US), 370 (Topic 61), History 350R (Topic 22), Islamic Studies 372 (Topic 21), Religious Studies 346 (Topic 10), 346U. Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 62: Coastal Communities in Early America.** Same as History 350R (Topic 1). Only one of the following may be counted: American Studies 370 (Topic: Coastal Commun in Early Amer), 370 (Topic 62), History 350R (Topic 1). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 63: Wealth and Poverty in the United States.** Analyze the categories of "wealth" and "poverty." Investigate both how wealth has historically been created, and also how wealth and poverty have been

depicted in American history. American Studies 370 (Topic: Wealth and Poverty in US) and 370 (Topic 63) may not both be counted.

**Topic 64: Global Cities in the United States.** Same as Urban Studies 324G. Engage with the history of the global city at various levels, using text from disciplines including history, geography, anthropology, and sociology, as well as primary sources, images, readings, and films. Define the global city in the past and present and explore questions of race, class, gender, the politics of space, the culture of empire, and the changing shape of U.S. capitalism. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Global Cities in the U.S.), 370 (Topic 64), Urban Studies 324G. Additional prerequisite: Upper-division standing.

**Topic 65: Energy and United States Capitalism.** Explore the intersecting histories of capitalism and energy in the U.S. in the twentieth century. Examine scholarly secondary literature as well as primary documents, literature, film, and photographs. American Studies 370 (Topic: Energy and US Capitalism) and 370 (Topic 65) may not both be counted.

**Topic 67: Tejana Cultural Studies.** Same as Mexican American Studies 337I and Women's and Gender Studies 340 (Topic 97). Investigate the history of Tejanas to reaffirm and reclaim their place and role in the histories of Native Americans, women, Chicana@/Chicanxs, Greater Mexico, and the United States. Explore how transborderism and transregionalism complicate this history. Contemplate how Tejanas' stories are fundamental to illuminating the struggles, resistance, and liberation of Chicanas, mestizas, and afromexicanas from precontact to decolonization. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Tejana Cultural Studies), 370 (Topic 67), Mexican American Studies 337I, 374 (Topic: Tejana Cultural Studies), Women's and Gender Studies 340 (Topic: Tejana Cultural Studies), 340 (Topic 97). Additional prerequisite: Upper-division standing.

**Topic 68: United States Masculinities.** Same as Women's and Gender Studies 335 (Topic 24). Only one of the following may be counted: American Studies 370 (Topic: US Masculinities), 370 (Topic 68), Women's and Gender Studies 335 (Topic: US Masculinities), 335 (Topic 24).

### **AMS 372. Conference Course.**

Supervised individual study of selected subjects in American studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **AMS 679H. Honors Tutorial Course.**

Individual readings and conferences in connection with an original research paper. Conference course for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the American Studies Honors Program; for 679HB, American Studies 679HA.

## **Graduate Courses**

### **AMS 385. Cultural History of the United States to 1865.**

An interdisciplinary cultural history survey of the United States. Three lecture hours a week for one semester, with additional hours to be arranged. Prerequisite: Graduate standing and consent of the graduate adviser.

### **AMS 386. Cultural History of the United States since 1865.**

An interdisciplinary cultural history survey of the United States. Three lecture hours a week for one semester, with additional hours to be arranged. Prerequisite: Graduate standing and consent of the graduate adviser.

### **AMS 390. Research Seminar in American Studies.**

Research on selected topics in American studies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **AMS 391. Reading or Research Seminar in American Studies.**

Reading or research seminar on topics relevant to American studies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **AMS 392. Conference Course in American Studies.**

Individual directed readings and conferences on selected problems or topics in American studies. Conference course. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **AMS 393. Introductory Readings in American Studies.**

Seminar designed to acquaint the graduate student with the nature and extent of materials for interdisciplinary research on American culture. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **AMS 394. Sources and Methods in American Studies.**

Seminar designed to acquaint the graduate student with key sources and methodologies for interdisciplinary research on American culture. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **AMS 196, 396. Internship in American Studies.**

Restricted to American studies majors. Practical working involvement with participating nonprofit and research agencies. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; hours to be arranged. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **AMS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in American studies and consent of the graduate adviser; for 698B, American Studies 698A.

### **AMS 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in American studies and consent of the graduate adviser.

### **AMS 398T. Supervised Teaching in American Studies.**

Seminar in the methods of interdisciplinary teaching and professional work in American studies. Three lecture hours a week for one semester. Prerequisite: Graduate standing in American studies and consent of the graduate adviser.

### **AMS 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Ancient History and Classical Civilization Courses**

## **Ancient History and Classical Civilization: AHC**

### **Lower-Division Courses**

#### **AHC 310. Introductory Surveys in Premodern History.**

Introductory survey of premodern history with emphasis on regions outside of the ancient Mediterranean world. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Introduction to the History and Culture of Spain.** Same as European Studies 306 (Topic 2) and History 306N (Topic 13). The history of Spain from its beginnings in the stone age through the great social and economic upheavals of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Introduction to the History and Culture of Spain), 310 (Topic 1), European Studies 306 (Topic: Introduction to the History and Culture of Spain), 306 (Topic 2), History 306N (Topic: Introduction to the History and Culture of Spain), 306N (Topic 13).

**Topic 2: Western Civilization in Medieval Times.** Same as Core Texts and Ideas 307E and History 309K. Survey of medieval Europe from late antiquity to the fifteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Western Civ in Medieval Times), 310 (Topic 2), Core Texts and Ideas 307E, 310 (Topic: Western Civ in Medieval Times), History 309K.

**Topic 3: The Ancient Middle East.** Same as History 306Q, Middle Eastern Languages and Cultures 301J, and Middle Eastern Studies 301J. Survey the history of the Middle East from the beginning of the Neolithic period (9000 BCE) through the invasion of the region by Alexander the Great in 332 BCE and into the pre-Islamic era. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic 3), History 306Q, Middle Eastern Languages and Cultures 301J, Middle Eastern Studies 301J.

**Topic 4: The Premodern World.** Same as History 301F. Survey of world history from human origins to the sixteenth century. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: The Premodern World), 310 (Topic 4), History 301F.

**Topic 5: The Medieval Millennium in Europe.** Same as History 309M. Explore new conceptions of medieval Europe by examining how the social practices, ideas, and institutions of the middle ages developed through interactions with Europe's neighbors. Three lecture hours a week for one semester. Ancient History and Classical Civilization 310 (Topic 5) and History 309M may not both be counted.

**Topic 6: Medieval Material Culture.** Same as History 309C and Religious Studies 309C. Explore the history of medieval Europe primarily through the lens of material culture. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Medieval Material Culture), 310 (Topic 6), History 306N (Topic: Medieval Material Culture), 309C, Religious Studies 309C, 315 (Topic: Medieval Material Culture).

#### **AHC 319D. The Ancient Mediterranean World.**

Same as Classical Civilization 319D and History 319D. Survey of the ancient Mediterranean from ca. 3000 BC to AD 476. Focus on the development of ideas and institutions in the Greek and Roman worlds and on the active cultural exchange among the diverse civilizations of

the broader region that shaped Greek and Roman history and cultural identity. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 319 (Topic 1), 319D, European Studies 301 (Topic: Ancient Mediterranean World), 306 (Topic: Ancient Mediterranean World), Middle Eastern Studies 310 (Topic: Ancient Mediterranean World), Classical Civilizations 319D, History 319D.

### **AHC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Ancient History.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the ancient history and classical civilization program. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **AHC 325. Topics in Ancient History.**

Topics in the history of the Greek and Roman empires and the surrounding area. Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: The History of Rome: The Republic.** Same as Core Texts and Ideas 327D and History 321M. A survey of Roman history from the founding of Rome to the death of Julius Caesar. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 1), Core Texts and Ideas 327D, 375 (Topic: Hist of Rome: The Republic), History 321M. Additional prerequisite: Upper-division standing.

**Topic 2: The History of Rome: The Empire.** Same as History 321. A survey of the Roman world from Augustus to Constantine the Great. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 2), Core Texts and Ideas 375 (Topic: History of Rome: The Empire), European Studies 346 (Topic: History of Rome: The Empire), History 321. Additional prerequisite: Upper-division standing.

**Topic 6: Alexander the Great and the Hellenistic World.** Same as History 351D. History of Asia, Egypt, and the Mediterranean world from Alexander's expedition to Asia to Rome's defeat of the last of the Hellenistic monarchs at Actium (ca. 334 to 31 BC). Two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 5), 325 (Topic 6), Classical Civilizations 351D, 354D, History 351D, 354D. Additional prerequisite: Upper-division standing.

**Topic 7: Archaic and Classical Greece.** Same as Core Texts and Ideas 375 (Topic 7) and History 354E. Survey of Greek history from the emergence of the city-states to the rise of Macedonia. Two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 4), 325 (Topic 7), Classical Civilizations 354C, Core Texts and Ideas 375 (Topic: Archaic and Classical Greece), 375 (Topic 7), History 354C, 354E. Additional prerequisite: Upper-division standing.

**Topic 8: Archaeology of Greek Prehistory.** Same as Classical Civilization 340 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 33), and Middle Eastern Studies 342 (Topic 42). Explores the development of complex societies in ancient Greece by studying its prehistory through archaeology. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic:

Archaeology of Greek Prehistory), 325 (Topic 8), Classical Civilization 340 (Topic: Archaeology of Greek Prehistory), 340 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic: Archaeology of Greek Prehistory), 321 (Topic 33), Middle Eastern Studies 320 (Topic: Archaeology of Greek Prehistory), 342 (Topic: Archaeology of Greek Prehistory), 342 (Topic 42), Persian 372 (Topic: Archaeology of Greek Prehistory).

**Topic 13: The Ancient Historians.** Same as Classical Civilization 322D, Comparative Literature 323 (Topic 59), and Core Texts and Ideas 329. Examines the main works of ancient historiography, and provides grounding in the central issues with which these works engage. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 13), Classical Civilization 322 (Topic 13), 322D, Comparative Literature 323 (Topic 59), Core Texts and Ideas 329. Additional prerequisite: Upper-division standing.

**Topic 15: Civil War in Rome.** Same as Classical Civilization 348 (Topic 15). Examines the sequence of civil conflict in Rome from the struggle of the orders through the rise of Constantine the Great. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Civil War in Rome), 325 (Topic 15), Classical Civilization 348 (Topic: Civil War in Rome), 348 (Topic 15), History 362G (Topic: Civil War in Rome).

### **AHC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Ancient History.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the ancient history and classical civilization program. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **AHC 330. Topics in Premodern History.**

Topics in premodern history with emphasis on regions outside of the ancient Mediterranean world. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: The Dead Sea Scrolls.** Same as History 364E, Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), and Religious Studies 353D. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic 1), History 364G (Topic 3), 364E, Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), Religious Studies 353D. Additional prerequisite: Upper-division standing.

**Topic 2: Epics and Heroes of India.** Same as Asian Studies 373G, Core Texts and Ideas 344, and History 350L (Topic 54). Focus on India's classical epics, the Mahabharata and the Ramayana, with emphasis placed on understanding the epic characters in relation to the heroic traditions of premodern India, as well as on the role of the epics in contemporary Indian political and religious culture. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic 2), Asian Studies 372 (Topic 40), 373G, Core Texts and Ideas 345 (Topic 11), 344, History 350L (Topic 54). Additional prerequisite: Upper-division standing.

**Topic 3: Mystics, Visionaries, and Heretics in Medieval Europe.** Same as History 350L (Topic 74) and Religious Studies 375S (Topic 3). Examines particular mystical and visionary experiences within the context of medieval European Christianity. Only one of the following

may be counted: Ancient History and Classical Civilization 330 (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 330 (Topic 3), History 350L (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 350L (Topic 74), Religious Studies 375S (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 375S (Topic 3).

**Topic 4: Lost Languages and Decipherment.** Same as Classical Civilization 348 (Topic 21), Middle Eastern Languages and Cultures 321 (Topic 37), and Middle Eastern Studies 342 (Topic 45). Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Lost Languages & Decipherment), 330 (Topic 4), Classical Civilization 348 (Topic: Lost Languages & Decipherment), 348 (Topic 21), Linguistics 350 (Topic: Lost Languages & Decipherment), Middle Eastern Languages and Cultures 321 (Topic: Lost Languages & Decipherment), 321 (Topic 37), Middle Eastern Studies 342 (Topic: Lost Languages & Decipherment), 342 (Topic 45). Prerequisite: Upper-division standing.

**Topic 5: The Crusades.** Same as European Studies 346 (Topic 38), History 344S, and Religious Studies 375S (Topic 8). An exploration of the religious encounters between eastern and western Christians, Christian heretics, Jews, Muslims, and polytheists; political, military, and cultural changes of the high middle ages; and the ways that crusading ideas and symbols have been reused in contemporary politics and popular culture. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Crusades), 330 (Topic 5), European Studies 346 (Topic: The Crusades), 346 (Topic 38), History 344S, 350L (Topic: The Crusades), Religious Studies 375S (Topic: The Crusades), 375S (Topic 8). Additional prerequisite: Upper-division standing

**Topic 6: Machiavelli: Politics and Culture.** Same as Core Texts and Ideas 330M, History 344R, and Religious Studies 357C. Through Niccolo Machiavelli's chief writings, consider the local, regional, Mediterranean, European, and global aspects of his work. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Machiavelli), 330 (Topic 6), Core Texts and Ideas 330M, 375 (Topic: Machiavelli), European Studies 346 (Topic: Machiavelli), History 344R, 350L (Topic: Machiavelli), Liberal Arts Honors 350 (Topic: Machiavelli), 351P, Religious Studies 357 (Topic: Machiavelli), 357C. Additional prerequisite: Upper-division standing.

**Topic 7: Great Works In Medicine.** Same as Core Texts and Ideas 373. Examine signature works in the history of medicine. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Great Works In Medicine), 330 (Topic 7), Core Texts and Ideas 373, 375 (Topic: Great Works In Medicine). Additional prerequisite: Upper-division standing.

**Topic 8: Twelfth-Century Renaissance: 1050-1200.** Same as European Studies 346 (Topic 40), History 344G, and Religious Studies 356F. An examination of social, cultural, and intellectual developments in eleventh- and twelfth-century Europe. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Twelfth-Cent Renais: 1050-1200), 330 (Topic: 12th-Century Renais: 1050-1200), 330 (Topic 8), European Studies 346 (Topic: 12th-Century Renais: 1050-1200), 346 (Topic 40), History 344G, Religious Studies 356F, 357 (Topic: 12th-Century Renais: 1050-1200). Additional prerequisite: Upper-division standing.

### AHC 378. Undergraduate Seminar in Ancient History.

Restricted to students in the Department of Classics. Lectures, discussion, reading, and research on selected topics in Greek and Roman history. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Roman Law.** Same as Classical Civilization 375 (Topic 1). Introduction to Roman law with close study of primary sources. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Roman Law), 378 (Topic 1), Classical Civilization 375 (Topic 1).

**Topic 2: Aegean Prehistory.** Same as Classical Civilization 375 (Topic 2). Traces political, social, economic, and general cultural developments on Crete and the Greek mainland between roughly 2200 and 1100 BCE. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Aegean Prehistory), 378 (Topic 2), Classical Civilization 375 (Topic 2), History 350L (Topic: Aegean Prehistory).

**Topic 3: Writing Ancient History Today.** Same as Classical Civilization 375 (Topic 3). Questions that engage ancient historians today and the methods that they use. Some background in ancient Greek history is recommended. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Writing Ancient History Today), 378 (Topic 3), Classical Civilization 375 (Topic 3), History 350L (Topic: Writing Ancient History Today).

**Topic 4: The Athenian Empire.** Same as Classical Civilization 375 (Topic 4). Explores Athenian society, democracy, and empire from the development of Athenian hegemony in the 470s BCE through the break up of the Athenian Empire in 404 BCE. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Athenian Empire), 378 (Topic 4), Classical Civilization 375 (Topic 4), History 350L (Topic: Athenian Empire).

**Topic 5: Space and Place.** Same as Classical Civilization 375 (Topic 5). Multidisciplinary approach to the cultural concepts of space and place using Greek and Roman literary, historical, and archaeological sources. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Space and Place), 378 (Topic 5), Classical Civilization 375 (Topic: Space and Place), 375 (Topic 5)

**Topic 6: Ancient Sparta.** Same as Classical Civilization 375 (Topic 6). Examines topics and problems in the social, political and economic history of the ancient city-state of Sparta. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Ancient Sparta), 378 (Topic 6), Classical Civilization 375 (Topic 6).

**Topic 7: Cognitive History of the Ancient World.** Same as Classical Civilization 375 (Topic 7). Examines aspects of the organization of thought in the ancient world. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Cognitive Hist of Anc World), (Topic 7), Classical Civilization 375 (Topic 7).

**Topic 8: Herodotus, Ethnography, and Archaeology.** Same as Classical Civilization 375 (Topic 8). Explore the ethnographic component of the Histories of Herodotus. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Herodotus, Ethnograph, & Arch), 378 (Topic 8), Classical Civilization 375 (Topic: Herodotus, Ethnograph, & Arch), 375 (Topic 8). Additional prerequisite: Upper-division standing.

### AHC 679H. Honors Tutorial Course.

Supervised conference course for honors candidates in ancient history and classical civilization. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Ancient History and Classical Civilization Honors Program; for 679HB, Ancient History and Classical Civilization 679HA.

## Graduate Courses

## Professional Courses

# Anthropology Courses

## Anthropology: ANT

### Lower-Division Courses

#### **ANT 301 (TCCN: ANTH 2301). Biological Anthropology.**

Introduction to the principles and the methods of biological (physical) anthropology. Overview of the study of human beings in an evolutionary context, our relationship to other primates, and to the rest of the natural world. Examines anatomical, behavioral, and genetic similarities and differences among living primates and basic mechanisms of the evolutionary process. The equivalent of three lecture hours a week for one semester.

#### **ANT 302 (TCCN: ANTH 2351). Cultural Anthropology.**

The concept of culture; social and political organization; language; the supernatural; elementary cultural theory. Three lecture hours a week or two lecture hours and one discussion hour a week for one semester.

#### **ANT 304 (TCCN: ANTH 2302). Introduction to Archaeological Studies: Prehistoric Archaeology.**

Anthropological study of prehistory, from human beginnings to the appearance of written records. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

#### **ANT 304T. Introduction to Texas Archaeology.**

Introduces students to Texas archaeology through lectures, interactive virtual labs, and hands-on laboratory sections that emphasize experimentation. The equivalent of three lecture hours or two lecture hours and two laboratory hours a week for one semester.

#### **ANT 305. Expressive Culture.**

How cultural assumptions affect how we tell and respond to different kinds of stories, including fairy tales, movies, and televised news. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

#### **ANT 307. Culture and Communication.**

Same as Linguistics 312C. An introduction to the study of culture through communication and the theory of signs. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Anthropology 307, Linguistics 312 (Topic: Culture and Communication), 312C.

#### **ANT 310C. Primate Cognition.**

Introduction to non-human primate knowledge of the physical world, as well as primate social knowledge. Examines non-human primate cognition within an evolutionary and comparative framework, with emphasis placed on comparing and contrasting non-human primate cognition with that of humans and other taxonomic groups. Three lecture hours a week for one semester. Anthropology 310C and 310L (Topic: Primate Cognition) may not both be counted.

#### **ANT 310D. Introduction to Black Studies.**

Same as African and African Diaspora Studies 303. Introduction to canonical black studies literature, themes, and theories. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 303, Anthropology 310D, 310L (Topic: Intro to African and African Diaspora Studies).

#### **ANT 310E. Introduction to East Austin Ethnography.**

Same as African and African Diaspora Studies 315C and American Studies 315G. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies

315C, 317D (Topic: Intro to East Austin Ethnography), American Studies 315 (Topic: Intro to East Austin Ethnography), 315G, Anthropology 310E, 310L (Topic: Intro to East Austin Ethnography).

#### **ANT 310F. African Diaspora Archaeology.**

Same as African and African Diaspora Studies 315V. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310F, 310L (Topic: African Diaspora Archaeology), African and African Diaspora Studies 315V, 317E (Topic: African Diaspora Archaeology).

#### **ANT 310L. Introductory Topics in Anthropology.**

Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary.

**Topic 2: Anthropology of Race and Ethnicity: An Introduction.** Same as African and African Diaspora Studies 315L and American Studies 315D. Examines the social importance of race and ethnicity both in America and around the world. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315L, 317D (Topic 2), American Studies 315D, Anthropology 310L (Topic 2).

**Topic 3: Anthropology of Latin America.** Same as Latin American Studies 315 (Topic 1). Provides a framework for understanding contemporary concerns in Latin America. Only one of the following may be counted: Anthropology 310L (Topic 3), Latin American Studies 315 (Topic 1).

**Topic 5: Introduction to South Asia.** Same as Asian Studies 302K. Introduction to Indian and south Asian civilization, past and present, including religion, literature, arts, philosophy, and history. Only one of the following may be counted: Anthropology 310L (Topic 5), Asian Studies 302K, History 306N (Topic: Introduction to India).

**Topic 6: Black Queer Art Worlds.** Same as African and African Diaspora Studies 315Q and Women's and Gender Studies 301 (Topic 17). Exploration of over two decades of work produced by and about black queer subjects throughout the circum-Atlantic world. Provides an introduction to various artists and intellectuals of the black queer diaspora, as well as an examination of the viability of black queer aesthetic practice as a form of theorizing. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315Q, 317E (Topic 1), Anthropology 310L (Topic 6), Women's and Gender Studies 301 (Topic 17).

**Topic 7: Diaspora: Race, Nation, and Resistance.** Same as African and African Diaspora Studies 315R. Subjects include makings and meanings of diaspora, the differences and similarities between diaspora and related concepts such as race, nation, and cultural identity. Focuses on the making of the black Atlantic world, and comparative analysis between black diasporic life and that of other global dispersals, particularly among Asian and indigenous populations, and how resistance serves as a key link. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315R, 317E (Topic 2), Anthropology 310L (Topic 7).

#### **ANT 310R. Race, Sex, and Tourism.**

Same as African and African Diaspora Studies 315W. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315W, 317E (Topic: Race, Sex, and Tourism), Anthropology 310L (Topic: Race, Sex, and Tourism), 310R.

#### **ANT 311D. Introduction to Jewish Studies.**

Same as Jewish Studies 301, Middle Eastern Studies 310 (Topic 8), and Religious Studies 313D. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic:

Jewish Studies: An Introduction), 311D, Jewish Studies 301, 311 (Topic: Jewish Studies: An Introduction), Middle Eastern Studies 310 (Topic: Jewish Studies: An Introduction), 310 (Topic 8), Religious Studies 313 (Topic: Jewish Studies: An Introduction), 313D.

#### **ANT 311E. Introduction to Jewish Latin America.**

Same as Jewish Studies 305D, Latin American Studies 315 (Topic 3), and Religious Studies 313E. Historical and cultural analysis of how Jews constructed lives and communities in predominantly Hispanic, Catholic countries of Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: Introduction to Jewish Latin America), 311E, Jewish Studies 311 (Topic: Introduction to Jewish Latin America), 305D, Latin American Studies 310 (Topic: Intro to Jewish Latin America), 315 (Topic: Intro to Jewish Latin America), 315 (Topic 3), Religious Studies 313 (Topic: Introduction to Jewish Latin America), 313E .

#### **ANT 314C. Introduction to Mesoamerican Archaeology.**

Same as Latin American Studies 315 (Topic 2). Introduction to ancient Mesoamerica from the time of emerging social inequality in the formative period until the Spanish conquest of Mexico-Tenochtitlan in the sixteenth century. Only one of the following may be counted: Anthropology 310L (Topic 1: Introduction to Mesoamerican Archaeology), 314C, Latin American Studies 310 (Topic 3: Introduction to Mesoamerican Archaeology), 315 (Topic 2).

#### **ANT 318L. Mexican American Culture.**

Same as Mexican American Studies 318. Mexican American cultural distinctiveness in the areas of social organization, child rearing, food culture, folklore, language, and religion. Three lecture hours a week for one semester.

#### **ANT 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Anthropology.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Anthropology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **ANT 320C. American Indian Languages and Cultures.**

Same as Linguistics 373L. Explore the myriad of indigenous languages of North America and how they are intertwined with culture. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 320C, 320L (Topic 4), Linguistics 373 (Topic: Amer Indian Langs and Culs), 373L. Prerequisite: Upper-division standing.

#### **ANT 320D. Speech Play and Verbal Art.**

Same as Linguistics 373S. Examine speech play and verbal art (from puns to lies to songs to stories to poetry) from ethnographic and linguistic perspectives in a host of contexts and languages. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 320D, 320L (Topic 5), Linguistics 373 (Topic: Speech Play and Verbal Art), 373S. Prerequisite: Upper-division standing.

#### **ANT 320E. Invented Languages.**

Examine invented languages from pidgin and creole languages to Esperanto or Basic English, and contemporary "conlangs" associated with various science fiction and fantasy series. Three lecture hours a week for one semester. Only one of the following may be counted:

Anthropology 320E, 320L (Topic: Invented Languages), 320L (Topic 12). Prerequisite: Upper-division standing.

#### **ANT 320F. Politics, Polity, and the Power of Words.**

Examine the place of language in a variety of different political settings—from oblique oratory in small-scale egalitarian communities to ritual "poetry" in cosmic polities to procedural prose in mass bureaucratic states—to illustrate the power of words. Identify the varied ways language sustains and transforms power relations in different political contexts, and thereby takes on a power of its own. Explore a variety of political situations, different modes of political communication, as well as different theories of the "performative" power of words. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 320F, 320L (Topic: Polit/Polity/Power of Words), 320L (Topic 11). Prerequisite: Upper-division standing.

#### **ANT 320G. Endangered Languages.**

Same as Linguistics 373E. Examine language rights as a tool for defending small-scale and minority language communities against the spread of national and global languages. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 320G, 320L (Topic Language Endangerment/Rights), 320L (Topic 13), Linguistics 373 (Topic: Language Endangerment/Rights), 373 (Topic 12), 373E. Prerequisite: Upper-division standing.

#### **ANT 320I. Talk, Text, and God.**

Same as Religious Studies 373T. Introduction to the anthropological study of Christianity, particularly in colonial and post-colonial settings. Three lecture hours a week for one semester Only one of the following may be counted: Anthropology 320I, 320L (Topic: Talk, Text, and God), 320L (Topic 14), Religious Studies 373 (Topic: Talk, Text, and God), 373T. Prerequisite: Upper-division standing.

#### **ANT 320J. The German Language: Historical Perspectives.**

Same as German 369 (Topic 4) and Linguistics 373G. Conducted in English. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 320J, 320L (Topic 9), German 369 (Topic 4), Germanic Civilization 327E (Topic 9), Linguistics 373 (Topic 9), 373G. Prerequisite: Three semester hours of upper-division coursework in German or Linguistics.

#### **ANT 322C. Contemporary African Popular Culture.**

Same as African and African Diaspora Studies 340 and Women's and Gender Studies 340 (Topic 49). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340, 372G (Topic: Contemporary African Popular Culture), Anthropology 322C, 324L (Topic: Contemporary African Popular Culture), Women's and Gender Studies 340 (Topic: Contemporary African Popular Culture), 340 (Topic 49). Prerequisite: Upper-division standing.

#### **ANT 322D. Multicultural Israel.**

Same as Jewish Studies 365C and Middle Eastern Studies 341 (Topic 8). Examines the complex social fabric that comprises contemporary Israeli society, and that shapes Israeli identity, practice and politics. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322D, 325L (Topic: Multicultural Israel), Jewish Studies 365 (Topic: Multicultural Israel), 365C, Middle Eastern Studies 341 (Topic: Multicultural Israel), 341 (Topic 8). Prerequisite: Upper division standing.

#### **ANT 322E. Self and Culture in North Korea.**

Same as Asian Studies 361N. Aims to understand North Korea's historical development and its current workings as a social, cultural, and political/ideological system. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322E,

324L (Topic: Self & Culture In North Korea), Asian Studies 361 (Topic: Self & Culture In North Korea), 361N. Prerequisite: Upper-division standing.

### **ANT 322F. Big Asian Histories.**

Same as Asian Studies 361M and History 340V. Examines ways in which Asia and other areas of the globe have had connected intellectual, artistic, and social developments with focus on world histories centrally involving Asia from the medieval period to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322F, 324L (Topic: Big Asian Histories), Asian Studies 361 (Topic: Big Asian Histories), 361M, History 340V, 364G (Topic: Big Asian Histories). Prerequisite: Upper-division standing.

### **ANT 322G. Cultural Geographies of Israel.**

Same as Jewish Studies 365D and Middle Eastern Studies 341 (Topic 10). Examines critical spatial theory, landscape phenomenology, histories of Zionist architecture and urban planning as applied to Israel from the Yishuv period to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322G, Jewish Studies 311 (Topic: Israel: Space/Place/Landscape), 365D, Middle Eastern Studies 341 (Topic 10). Prerequisite: Upper division standing.

### **ANT 322I. Native American Cultures of the Southwest.**

Same as American Studies 321U. Explore the diverse Native cultures of the Southwest, focusing on the philosophical underpinnings and the frameworks of meaning and moral responsibility of indigenous peoples of the American Southwest. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Native American Cultures of the Southwest), 321 (Topic 1), 321U, Anthropology 322M (Topic 3), 322M (Topic 4), 322I. Prerequisite: Upper-division standing.

### **ANT 322J. Goddesses in World Religions and Cultures.**

Same as Asian Studies 340F, Religious Studies 373G, and Women's and Gender Studies 340 (Topic 30). Historical and cross-cultural overview of the relationship between feminine and religious cultural expressions through comparative examinations and analyses of various goddess figures in world religions. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322J, 324L (Topic: Goddesses in World Religions and Cultures), Asian Studies 340 (Topic 7), 340F, Religious Studies 373 (Topic 3), 373G, Women's and Gender Studies 340 (Topic 30). Prerequisite: Upper-division standing.

### **ANT 322N. History of Hindu Religious Traditions.**

Same as Asian Studies 340D, History 364C, and Religious Studies 321. History of major doctrines, practices, and institutions that shaped the development of Hinduism; how religions adapt to social and cultural change and often provide the catalyst for change. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322N, 324L (Topic 23), Asian Studies 340 (Topic 4), 340D, History 364C, 364G (Topic 1), Religious Studies 321. Prerequisite: Upper-division standing.

### **ANT 322O. Gender, Sexuality, and the Family in Indian Religions and Cultures.**

Same as Asian Studies 372K, Religious Studies 341M, and Women's and Gender Studies 340 (Topic 25). A comprehensive historical overview of gender issues as they are represented in the textual traditions of South Asia. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322O, 324L (Topic 40), Asian Studies 372 (Topic 25), 372K, Religious Studies 341 (Topic 3), 341M, Women's and Gender Studies 340 (Topic 25). Prerequisite: Upper-division standing.

### **ANT 322P. Mexican Immigration Cultural History.**

Same as Latin American Studies 324L (Topic 16) and Mexican American Studies 364F. Examines the history of Mexican immigration to the United States, and provides an overview of migratory patterns dating back to the late prehistoric period through contemporary times. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322M (Topic 12), 322P, Latin American Studies 324L (Topic 16), Mexican American Studies 364F, 374 (Topic: Mexican Immigration Cultural History). Prerequisite: Upper-division standing.

### **ANT 322Q. Mexican American Indigenous Heritage.**

Same as Latin American Studies 324L (Topic 20) and Mexican American Studies 374 (Topic 23). The prehistory, history, and contemporary racial understanding of Mexican Americans. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322M (Topic 10), 322Q, Latin American Studies 324L (Topic: Mexican Amer Indig Heritage), 324L (Topic 20), Mexican American Studies 374 (Topic 23). Prerequisite: Upper-division standing.

### **ANT 322T. Russian Myths and Folktales.**

Same as Comparative Literature 323 (Topic 34) and Russian, East European, and Eurasian Studies 325 (Topic 22). Examination of the Russian folktale, its roots in ancient, pre-Christian Slavic religious tradition, its connections with other forms of folklore such as myth and legend, and its transformation in modern Russian literature. Subjects include the continuing influence of folklore explored through various aspects of Russian culture, including literature, music, ballet, film, and popular culture. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322T, 325L (Topic 12), Comparative Literature 323 (Topic 34), Russian 330 (Topic 9), Russian, East European and Eurasian Studies 325 (Topic 22). Prerequisite: Upper-division standing.

### **ANT 322W. Power and Resistance in Putin's Russia.**

Same as Russian, East European, and Eurasian Studies 345 (Topic 13). Examine power and resistance in contemporary Russia in a systematic way to allow engagement with larger, theoretical questions about state-citizen interactions beyond the margins of the liberal project. Consider examples from Russia and Eastern Europe to develop methodologies for studying how state power is analyzed "from below" by ordinary citizens seeking to shape politics and policy. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322W, 324L (Topic: Power and Resistance in Rus), Russian, East European, and Eurasian Studies 345 (Topic: Power and Resistance in Rus), 345 (Topic 13). Prerequisite: Upper-division standing.

### **ANT 323C. Sport, Religion, and Society.**

Same as Religious Studies 373S. Explore sport as it relates to ritual and religious practice and examine the meaning and nature of sport in cross-cultural perspectives. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Sport, Religion, and Society), 323C, Religious Studies 373 (Topic 4), 373S. Prerequisite: Upper-division standing.

### **ANT 323D. Religions of the Caribbean.**

Same as African and African Diaspora Studies 345G, Latin American Studies 322D, and Religious Studies 366D. Examine the histories and politics of religious practices in the Greater Caribbean, encompassing the islands and Central American coasts as well as the continental diasporas, from Vodou and Rastafari to popular Hinduism. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Religions of the Caribbean) 345G, Anthropology 324L (Topic: Religions of the Caribbean), 323D, Latin American Studies 324L (Topic: Religions of

the Caribbean), 322D, Religious Studies 366 (Topic: Religions of the Caribbean), 366 (Topic 2), 366D. Prerequisite: Upper-division standing.

### **ANT 323E. Politics and Performance.**

Same as Russian, East European, and Eurasian Studies 345 (Topic 10). Consider the power struggles of the democratic process by closely attending to techniques and technologies of language, rhetoric, and performance. Examine this process in the American context, with attention to the recent influence of non-American developments such as "Kremlin propaganda techniques," the "weaponization" of fake news, and populist demagoguery. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323E, 324L (Topic: Politics and Performance), Russian, East European, and Eurasian Studies 345 (Topic: Politics and Performance), 345 (Topic 10). Prerequisite: Upper-division standing.

### **ANT 323I. Comparative White Nationalisms.**

Same as Russian, East European, and Eurasian Studies 345 (Topic 16). Consider critical questions about the constructions of whiteness and nationalism across the globe. Examine, through an anthropological lens, how the boundaries of whiteness changed throughout history, and its relationship to far-right political groups, to trace the history of white nationalism and its present-day global resurgence. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323I, 324L (Topic: Comparng White Nationalisms), Russian, Eastern European, and Eurasian Studies 345 (Topic: Compартv White Nationalisms), 345 (Topic 16). Prerequisite: Upper-division standing.

### **ANT 323N. Biomedicine, Ethics, and Culture.**

Same as Asian Studies 361 (Topic 29) and Religious Studies 373M. Examines ethical questions such as the allocation of medical resources, stem cell research and cloning, organ transplantation, abortion, human experimentation, prolonging life and the right to die, suicide, euthanasia, and diagnosis and treatment of illnesses, explored from a global perspective. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323N, 324L (Topic: Biomedicine, Ethics, & Culture), Asian Studies 361 (Topic: Biomedicine, Ethics, & Culture), 361 (Topic 29), Religious Studies 373 (Topic: Biomedicine, Ethics, & Culture), 373M. Prerequisite: Upper-division standing.

### **ANT 323P. Anthropology of the Himalayas.**

Same as Asian American Studies 330L and Asian Studies 361 (Topic 27). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323P, 324L (Topic: Anthropol of the Himalayas), Asian American Studies 330 (Topic: Anthropol of the Himalayas), 330L, Asian Studies 361 (Topic: Anthropology of the Himalayas), 361 (Topic 27). Prerequisite: Upper-division standing.

### **ANT 323R. Anthropology of Infrastructure.**

Same as Urban Studies 322P. Explore how infrastructure creates relationships between resources, energy, built form, information, and people. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323R, 324L (Topic: Anthropology of Infrastructure), Urban Studies 322P, 352 (Topic: Anthropology of Infrastructure). Prerequisite: Upper-division standing.

### **ANT 323S. Anthropology of Food.**

Explore the cultural dimensions of growing, cooking, and eating food by engaging themes of gender, race, indigeneity, embodiment, hunger, and power. Three lecture hours a week for one semester. Anthropology 323S and 324L (Topic: Anthropology of Food) may not both be counted. Prerequisite: Upper-division standing.

### **ANT 324C. Science, Magic, and Religion.**

Same as African and African Diaspora Studies 351S, American Studies 327K, and Religious Studies 373L. Historical and cross-cultural overview of the constructed concepts of magic, science, and religion through comparative examinations of cultural contexts from the Islamic world, western Europe, the Caribbean, the U.S., and Mozambique. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Science/Magic/Religion), 351S, American Studies 327 (Topic: Science, Magic, & Religion), 324C, Religious Studies 373 (Topic: Science, Magic, & Religion), 373 (Topic 6), 373L. Prerequisite: Upper-division standing.

### **ANT 324D. Japanese Religion and Western Imagination.**

Same as Asian Studies 340C and Religious Studies 352D. Examines Japanese religious traditions, with a focus on Zen, through the perspective of people living in non-Japanese societies since the end of World War II. Explores different ways in which non-Japanese have imagined Japanese religious and ethical ideas and both explained Japanese behavior and adopted ideas about Japan into their writings about philosophy and life. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Japanese Religion and Western Imagination), 340C, Anthropology 324D, 324L (Topic: Japanese Religion and Western Imagination), Religious Studies 352 (Topic: Japanese Religion and Western Imagination), 352D. Prerequisite: Upper-division standing.

### **ANT 324E. Culture and Health.**

Examine the social and cultural foundations of western medicine as well as an introduction to indigenous and alternative health systems. Three lecture hours a week for one semester Only one of the following may be counted: Anthropology 324E, 324L (Topic: Culture and Health), 324L (Topic: Anthropol of Health & Illness). Prerequisite: Upper-division standing.

### **ANT 324F. Anthropology Of Religion.**

Same as Religious Studies 373E. Examine a genealogy of the anthropology of religion around the globe from the nineteenth century to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324F, 324L (Topic: Anthropology Of Religion), Religious Studies 373 (Topic: Anthropology Of Religion), 373E. Prerequisite: Upper-division standing.

### **ANT 324G. Environmental Anthropology.**

Examine the environment, environmental inequality, and the relationship between culture and ecology. Three lecture hours or two lecture hours and one hour of discussion a week for one semester. Anthropology 324G and 324L (Topic: Environmental Anthropology) may not both be counted. Prerequisite: Upper-division standing.

### **ANT 324I. Sounding the City.**

Explore the significance of sound for urban social life. Three lecture hours a week for one semester. Anthropology 324I and 324L (Topic: Sounds of the City) may not both be counted Prerequisite: Upper-division standing.

### **ANT 324J. HIV and AIDS Activism and the Healing Arts.**

Same as African and African Diaspora Studies 350J and Women's and Gender Studies 335 (Topic 10). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350J, 374E (Topic: HIV/AIDS Activism/Heal Arts), Anthropology 324J, 324L (Topic: HIV/AIDS Activism/Heal Arts), Women's and Gender Studies 335 (Topic: HIV/AIDS Activism/Heal Arts), 335 (Topic 10). Prerequisite: Upper-division standing.

## ANT 324L. Topics in Anthropology.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 3: Primitive Technology.** Prerequisite: Upper-division standing.

**Topic 7: Introduction to African Prehistory.** Same as African and African Diaspora Studies 322. Prerequisite: Upper-division standing.

**Topic 8: Cultures of Southeast Asia.** Same as Asian Studies 361 (Topic 5: Cultures of Southeast Asia). Comparative study of the peoples of Indonesia, Burma, Thailand, Malaysia, and other countries. Additional prerequisite: Upper-division standing.

**Topic 9: The African Diaspora in the Americas.** Same as African and African Diaspora Studies 321. Black cultures and societies in the New World, and their African heritage. Prerequisite: Upper-division standing.

**Topic 13: Musics of India.** Same as Asian Studies 361 (Topic 11: Musics of India) and Music 342 (Topic 3: Musics of India). Prerequisite: Upper-division standing.

**Topic 17: Nature, Society, and Adaptation.** Same as Geography 331K. Long term trajectories of change in human environment relationships, including issues of human evolution and human nature, violence, population, food, agriculture, urbanization, globalizing modernization, and environmental impacts; issues of sustainability, cultural survival, human rights, and environmental protection. Three lecture hours a week for one semester. Additional prerequisite: Upper-division standing.

**Topic 24: Archaeology of African Thought.** Same as African and African Diaspora Studies 340R. Archaeological, historical, and ethnographic data as they relate to the foundations of contemporary African and African American societies. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora 340R, 372G (Topic 3), Anthropology 324L (Topic 24).

**Topic 29: Sacred and Ceremonial Textiles.** Same as Islamic Studies 372 (Topic 11), Middle Eastern Languages and Cultures 321 (Topic 34), Religious Studies 358T, and Women's and Gender Studies 340 (Topic 57). Textiles and material objects indigenous to the Islamic world, and what they reveal about the culture of various Islamic societies. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Middle Eastern Languages and Cultures 321 (Topic: Sacred and Ceremonial Textiles), 321 (Topic 34), Religious Studies 358 (Topic 11), 358T, Textiles and Apparel 365 (Topic: Sacred and Ceremonial Textiles), Women's and Gender Studies 340 (Topic 57). Additional prerequisite: Upper-division standing.

**Topic 31: Development And Its Critics.** Same as Asian Studies 361 (Topic 49). Only one of the following may be counted: Anthropology 324L (Topic: Development And Its Critics), 324L (Topic 31), Asian Studies 361 (Topic: Development And Its Critics), 361 (Topic 49). Additional prerequisite: Upper-division standing.

**Topic 33: Geographical Information Systems and Remote Sensing for Archaeology and Paleontology.** Same as Geography 356T (Topic 3: Geographical Information Systems and Remote Sensing for Archaeology and Paleontology). Designed to give students interested in the fields of archaeology, physical anthropology, and paleontology a foundation in the use of geographical information systems (GIS) and the analysis of remotely sensed data from satellites and aerial photographs. Additional prerequisite: Upper-division standing.

**Topic 37: The Politics of Race and Violence in Brazil.** Same as African and African Diaspora Studies 345L and Latin American Studies 324L (Topic 14). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345L, 374E (Topic 2), Anthropology 324L (Topic 37), Latin American Studies 324L (Topic 14). Additional prerequisite: Upper-division standing.

**Topic 39: Theories of Archaeology.** The history of archaeological thought, including the major theoretical trends that have shaped the discipline over time.

**Topic 41: Science, Technology, and Race.** Examines the intersections and linkages between race, science, and technology. Review of the array of current anthropological and sociological studies of science, which regard science as an institutionalized set of cultural practices charged with generating objective knowledge of the world. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Science, Technology, and Race), Anthropology 324L (Topic: Science, Technology, and Race), 324L (Topic 41).

**Topic 42: United States Latino and Latina Ethnographies.** Same as Mexican American Studies 374 (Topic 33). Explores past and present anthropological representations of Latinos and Latinas in the United States. Only one of the following may be counted: Anthropology 324L (Topic: U.S. Latino/a Ethnographies), 324L (Topic 42), Mexican American Studies 374 (Topic: U.S. Latino/a Ethnographies), 374 (Topic 33).

**Topic 43: Creative Nonfiction and Ethnography.** Explores the convergences and divergences between ethnographic and narrative journalistic writing, and their potential for producing powerful, richly textured accounts that capture the depth of human experience and the complexity of social life. Anthropology 324L (Topic: Creative Nonfiction and Ethnography) and 324L (Topic 43) may not both be counted.

**Topic 44: Ethnographic Theory and Practice.** An exploration of the complex relationship between anthropological ideas and ethnographic practice. Introduces a broad spectrum of concepts, issues, and theories of culture, and critically examines how these theories and ideas shape anthropological methods and writings. Anthropology 324L (Topic: Ethnographic Theory and Practice) and 324L (Topic 44) may not both be counted.

**Topic 45: Queer Ethnographies.** Same as Women's and Gender Studies 340 (Topic 58). Anthropological analysis of gender and sexuality that critically evaluates formative concepts and theories that have been subject to recent debates within anthropology, gender studies, and queer theory. Only one of the following may be counted: Anthropology 324L (Topic: Queer Ethnographies), 324L (Topic 45), Women's and Gender Studies 340 (Topic: Queer Ethnographies), 340 (Topic 58).

**Topic 46: Urban Unrest.** Same as African and African Diaspora Studies 360F, American Studies 321 (Topic 8), Asian American Studies 330G, and Urban Studies 327U. Analysis of the roots of urban unrest, exploring a range of origins: joblessness, state violence, white flight, backlash against civil rights gains, new immigration, and interracial strife. Beyond race and class, subjects include exploring unrest as a mode of pushing the normative boundaries of gender and sexuality in public space. Course material will draw from film, literature, history, geography, and anthropology. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360F, 372F (Topic 13), American Studies 321 (Topic 8), Anthropology 324L (Topic 46), Asian American Studies 330 (Topic 6), 330G, Urban Studies 327U, 354 (Topic 14). Additional prerequisite: Upper-division standing.

**Topic 47: Afro-Caribbean Politics and Culture in Central America.** Same as African and African Diaspora Studies 326, Latin American Studies 337N, and Women's and Gender Studies 340 (Topic 38). Exploration of black identity, political systems, and community activism in Central America and the Caribbean. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 326, 374E (Topic: Afro-Caribbean Politics and Culture in Central America), Anthropology 324L (Topic: Afro-Caribbean Politics and Culture in Central America), 324L (Topic: 47), Government 365N (Topic: Afro-Caribbean Politics and Culture in Central America), Latin American Studies 337M (Topic: Afro-Caribbean

Politics and Culture in Central America), 337N, Women's and Gender Studies 340 (Topic: Afro-Caribbean Politics and Culture in Central America), 340 (Topic 38). Prerequisite: Upper-division standing.

**Topic 48: Sex and Power in the African Diaspora.** Same as African and African Diaspora Studies 345F and Women's and Gender Studies 340 (Topic 52). Exploration of various experiences and theories of sex, intimacy, and desire alongside intellectual and artistic engagements with power hierarchies and spirituality across transnational black communities. Subjects include the concept of "erotic subjectivity" from various theoretical and methodological angles, principally within African diasporic contexts. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345F, 372G (Topic 33), Anthropology 324L (Topic 48), Women's and Gender Studies 340 (Topic 52). Additional prerequisite: Upper-division standing.

**Topic 49: Global Markets and Local Cultures.** Same as Asian Studies 361 (Topic 31). Examines contemporary theories of globalization, including materials exploring global governance, international monetary policy, migration regulation, offshoring, and cultural hybridity. Focuses on case studies in Asia and elsewhere that reveal how these practices impact particular communities. Only one of the following may be counted: Anthropology 324L (Topic: Global Markets and Local Cultures), 324L (Topic 49), Asian Studies 361 (Topic 31), 372 (Topic: Global Markets and Local Cultures), 372 (Topic 26). Additional prerequisite: Upper-division standing.

**Topic 51: The Cities of the Middle East.** Same as Islamic Studies 373 (Topic 9) and Middle Eastern Studies 341 (Topic 3). Anthropological and sociological analysis of space, with a special emphasis on urban theory and culture in the Middle East. Only one of the following may be counted: Anthropology 324L (Topic: Cities of the Middle East), 324L (Topic 51), Islamic Studies 373 (Topic: Cities of the Middle East), 373 (Topic 9), Middle Eastern Studies 322K (Topic: Cities of the Middle East), 341 (Topic 3), Urban Studies 354 (Topic: Cities of the Middle East), 354 (Topic 15).

**Topic 53: Global Indigenous Issues.** Same as Latin American Studies 324L (Topic 15). Explores contemporary issues of indigenous peoples around the world through films, literature, and social science readings and focuses on how indigenous peoples are actively working to oppose their oppression and create sustainable futures. Only one of the following may be counted: Anthropology 324L (Topic: Global Indigenous Issues), 324L (Topic 53), Latin American Studies 324L (Topic: Global Indigenous Issues) 324L (Topic 15).

**Topic 54: Black Native American Relations in the United States.** Explores the entwined histories, cultures, and identities of African American and Native American people in North America. Subjects include experiences of racial formation, including how race, power, and indigeneity work in different ways for people in contemporary United States society. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Black Native Relations in the U.S.), American Studies 321 (Topic: Black Native Relations in the U.S.), Anthropology 324L (Topic: Black Native Relations in the U.S.), Anthropology 324L (Topic 54).

**Topic 55: Language, Culture, and the Texas German Experience.** Same as American Studies 370 (Topic 47), German, Scandinavian, and Dutch Studies 351C, and Linguistics 373 (Topic 10). The evolution of the culture and language of German immigrants to Texas from the 1840s through the present and how they have influenced other ethnic groups in Texas. Three lectures a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Language, Culture, and the Texas German Experience), 370 (Topic 47), Anthropology 324L (Topic: Language, Culture, and the Texas German Experience), 324L (Topic 55), Germanic Civilization 327E (Topic 11) German, Scandinavian, and Dutch Studies 351C, Linguistics 350 (Topic: Language, Culture, and the Texas German Experience), 373 (Topic 10). Additional prerequisite: Upper-division standing.

**Topic 56: Ethnographic Writing.** Writing workshop consisting of a series of exercises to add density and texture to ethnographic description by including attention to scene, character, event, situation, and dialogue. Only one of the following may be counted: Anthropology 324L (Topic: Ethnographic Writing), 324L (Topic: Writing Ethnography), 324L (Topic 56). Additional prerequisite: Upper-division standing.

**Topic 57: Archaeology of Climate Change.** Same as Geography 321L. Examines why climate changes, the methods for recording climate change, and includes case studies of the varied responses of past human societies to climate change in different geographic regions and time periods with varying socio-political and economic systems. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Archaeology of Climate Change), 324L (Topic 57), Geography 321L, 356 (Topic: Archaeology of Climate Change). Additional prerequisite: Upper-division standing.

**Topic 58: Digital Data Systems in Archaeology.** Designed to help students understand the basic knowledge and skills needed to operate digital equipment (e.g. GPS and Total Data Stations) commonly used for collecting location data on archaeological sites. Instruction on mapping and grid systems translates into "hands-on" instrument operation in simulated archaeological field conditions. Provides an introduction to GIS software and its applications in archaeology as well as an overview of near-surface sensing techniques. Anthropology 324L (Topic: Digital Data Systems in Archaeology) and 324L (Topic 58) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 59: Graffiti and Poster Art in the Islamic World.** Same as Islamic Studies 373 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic 36), Middle Eastern Studies 342 (Topic 44), Religious Studies 359C, and Women's and Gender Studies 340 (Topic 67). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Graffiti/Poster Art: Islm Wrld), 324L (Topic 59), Islamic Studies 373 (Topic: Graffiti/Poster Art: Islm Wrld), 373 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic: Graffiti/Poster Art: Islam World), 321 (Topic 36), Middle Eastern Studies 342 (Topic: Graffiti/Poster Art: Islam World), 342 (Topic 44), Religious Studies 358 (Topic: Graffiti/Poster Art: Islm Wrld), 358 (Topic 21), 359C, Women's and Gender Studies 340 (Topic: Graffiti/Poster Art: Islm Wrld), 340 (Topic 67). Additional prerequisite: Upper-division standing.

**Topic 63: Food and Culture.** Examines cultural and linguistic views on eating and how we talk about what we eat in the contemporary era. Combines scholarly literature, videos, and readings about food subjects that circulate in popular culture, and considers how flows of dietary images and discourses shape race/ethnicity, gender, social class, and other identifications. Anthropology 324L (Topic: Food and Culture) and 324L (Topic 63) may not both be counted. Prerequisite: Upper-division standing.

**Topic 64: The Bronze Age and the Iron Age in Atlantic Europe.** Introduction to the archaeology of Atlantic Europe with particular emphasis on the Bronze Age and Iron Age periods. Examines the diversity and commonalities of European adaptations, investigates how geography influenced trade of goods and ideas, as well as the profound changes brought about by a new conceptualization of the world and the innovations of the Bronze and Iron Ages. Anthropology 324L (Topic: Bronze Age and Iron Age Atlantic Europe) and 324L (Topic 64) may not both be counted. Prerequisite: Upper-division standing.

**Topic 65: Anthropology for Liberation.** Same as African and African Diaspora Studies 351T. Takes a critical look at anthropologists' quests to shifting the legacy of anthropology from the colonial toward freedom and liberation. Explores anthropology's relationship to human rights, violence, questions of race, gender, and sexuality, imperialism and neoliberalism, and the ways that some anthropologists have chosen to use their field work in new and different ways. Three lecture

hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351T, 372C (Topic: Anthropology for Liberation), 372C (Topic 8), Anthropology 324L (Topic: Anthropology for Liberation), 324L (Topic 65), Women's and Gender Studies 340 (Topic: Anthropology for Liberation). Additional prerequisite: Upper-division standing.

**Topic 66: Indigenizing Queer Theory.** Introduction to emerging work by indigenous queer theorists, largely from the United States. Examines cultural conflicts between the west and indigenous world views and practices surrounding monogamy and marriage, same-sex marriage, enforced gender binaries, sexual identities and practices, their regulation by the colonial state, and implications for indigenous people. Only one of the following may be counted: Anthropology 324L (Topic: Indigenizing Queer Theory), 324L (Topic 66), Women and Gender Studies 335 (Topic: Indigenizing Queer Theory). Prerequisite: Upper-division standing.

**Topic 68: Creation and Evolution: Human Origins in Scientific and Religious Discourses.** Same as Religious Studies 373J. Examines evolutionary theory, intelligent design, and creationism, and how they interact. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Creation and Evolution in America), 324L (Topic 68), Religious Studies 346 (Topic: Creation and Evolution), 373 (Topic 8), 373J. Additional prerequisite: Upper-division standing.

**Topic 69: Japanese Concepts of Body and Self.** Same as Asian Studies 372N and Religious Studies 352S. Exploration of anthropological literature describing Japanese conceptions of self and body, and analysis of the intersection of these conceptions of self with Japanese ideas about religion, morality, aging, and medicine. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Japanese Concepts of Body and Self), 324L (Topic 69), Asian Studies 372 (Topic 41), 372N, Religious Studies 352 (Topic 8), 352S. Additional prerequisite: Upper-division standing.

**Topic 71: Extraterrestrial Intelligence: Culture, Religion, and Imagination.** Same as Religious Studies 373K. Focusing primarily on the 20th and 21st Centuries, explores the search for extraterrestrial intelligence (SETI) and considers how these ideas have intersected with other aspects of society, particularly religion, including recent arguments that SETI itself has developed into a religion. Examines meanings and motivations behind issues such as Percival Lowell's quest to prove the existence of canals on Mars and the development of Scientology. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Sentience, Culture, and Religion: SETI), 324L (Topic 71), Religious Studies 373 (Topic: Sentience, Culture, and Religion: SETI), 373 (Topic 9), 373K. Additional prerequisite: Upper-division standing.

**Topic 72: Development, Security, and Society.** Explores the linkages between development, security, and society. Examines a series of recent transformations that have drawn the relationship between international development and various forms of security together. Through an exploration of recent anthropological work, examines subjects such as: human security, the relationship between development and humanitarian intervention, strategies for planning in the face of climate change, disaster management, and new technologies of warfare and security. Anthropology 324L (Topic: Human Securities/Insecurities) and 324L (Topic 72) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 73: Political Ecology.** Introduction to core tenets of political ecology. Focuses on ethnographic approaches and introduces key debates in the field—such as the relationship between environment and violence, the critique of Malthusian and neo-Malthusian notions of scarcity and limits, the links between conservation and dispossession, and more. Explores the uses of political ecology in key contemporary debates over social and environmental change, from climate change

to waste management. Anthropology 324L (Topic: Political Ecology) and 324L (Topic 73) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 74: Inca World.** Same as Latin American Studies 324L (Topic 18). Explores how Inca civilization developed, how the Incas grew from a small highland state into a mighty empire, and how a small number of Spaniards and their allies were able to bring the Inca dynasty to an end. Read accounts of the Incas written in the first years of Spanish colonial rule, and review the latest archaeological discoveries. Only one of the following may be counted: Anthropology 324L (Topic: Inca World), 324L (Topic 74), Latin American Studies 324L (Topic: Inca World), 324L (Topic 18). Additional prerequisite: Upper-division standing.

**Topic 77: Blacks and Asians: Race and Social Movements.** Same as African and African Diaspora Studies 360G and Asian American Studies 330D. Examines the relations between Asians and Blacks in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360G, 374D (Topic: Blacks/Asians: Race/Social Movements), 374D (Topic 19), Anthropology 324L (Topic: Blacks/Asians: Race/Social Movements), 324L (Topic 77), Asian American Studies 330 (Topic: Blacks/Asians: Race/Social Movements), 330 (Topic 3), 330D. Additional prerequisite: Upper-division standing.

**Topic 78: Black Women and the State.** Same as African and African Diaspora Studies 360E, Latin American Studies 324L (Topic 17), and Women's and Gender Studies 340 (Topic 7). Surveys black women's experiences living with and confronting state oppression around the world. Takes an historical, social, and theoretical look at the roots of this oppression and inequality, and how black women have chosen to respond to it locally and globally. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360E, 372F (Topic 11), 372F (Topic 12), Anthropology 324L (Topic 78), Latin American Studies 324L (Topic 17), Women's and Gender Studies 340 (Topic 7), 340 (Topic 63). Additional prerequisite: Upper-division standing.

#### **ANT 324N. Muslim Women in Politics.**

Same as Islamic Studies 372 (Topic 23), Religious Studies 358D, and Women's and Gender Studies 340 (Topic 56). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Muslim Women in Politics), 324N, Islamic Studies 372 (Topic: Muslim Women in Politics), 372 (Topic 23), Religious Studies 358 (Topic: Muslim Women in Politics), 358 (Topic 19), 358D, Women's and Gender Studies 340 (Topic: Muslim Women in Politics), 340 (Topic 56). Prerequisite: Upper-division standing.

#### **ANT 324O. Globalization in Latin America.**

Same as Latin American Studies 324L (Topic 19). Critically examine the globalization phenomenon in Latin America, focusing on history and ethnography. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Globalization in Latin Amer), 324O, Latin American Studies 324L (Topic: Globalization in Latin Amer), 324L (Topic 19). Prerequisite: Upper-division standing.

#### **ANT 324P. Gender and Labor in Global Asia.**

Same as Asian Studies 379 (Topic 12) and Women's and Gender Studies 340 (Topic 93). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Gender & Labor in Global Asia), 324P, Asian Studies 379 (Topic: Gender & Labor in Global Asia), 379 (Topic 12), Women's and Gender Studies 340 (Topic: Gender & Labor in Global Asia), 340 (Topic 93). Prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

**ANT 324R. Daily Life in Mesoamerica.**

Same as Latin American Studies 324Q. Examine the daily life of people in Mesoamerica, from the earliest inhabitants in the region to the myriad ways that Precolumbian life and archaeology affect the lives of people today. Three lecture hours a week for one semester. Only one of the following may count: Anthropology 324L (Topic: Daily Life in Mesoamerica), 324R, Latin American Studies 324L (Topic: Daily Life in Mesoamerica), 324Q. Prerequisite: Upper-division standing.

**ANT 324S. The Global City.**

Same as African and African Diaspora Studies 351, American Studies 324E, and Urban Studies 330G. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351, 374D (Topic: The Global City), American Studies 321 (Topic: The Global City), 324E, Anthropology 324L (Topic: The Global City), 324S, Urban Studies 330G, 353 (Topic: The Global City). Prerequisite: Upper-division standing.

**ANT 324V. Sexuality in Global Perspective.**

Same as Latin American Studies 324G and Women's and Gender Studies 335 (Topic 14). Explore the ways in which sexuality intersects with money, intimacy, power, and labor in the context of global economic processes. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Sexuality in Global Persp), 324V, Latin American Studies 324G, Women's and Gender Studies 335 (Topic: Sexuality in Global Persp), 335 (Topic 14). Prerequisite: Upper-division standing.

**ANT 325C. Cultures of Sustainability.**

Examine how ecological concerns are articulated and perceived in different cultural contexts. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325C, 325L (Topic: Cultures of Sustainability), 325L (Topic 19). Prerequisite: Upper-division standing.

**ANT 325D. Representation of Jews in the American Public Sphere.**

Same as Jewish Studies 365 (Topic 11) and Religious Studies 346L. Examines how Jews have been represented and constituted in American public culture as a race, religion, and/or nation through distinct institutions and display practices. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325D, 325L (Topic 13), Jewish Studies 365 (Topic 11), Religious Studies 346 (Topic 8), 346L. Prerequisite: Upper-division standing.

**ANT 325E. Ethnographies of Emotion.**

Examine concepts such as place, character, objects, subjects, cultural forms, everyday life, and feeling states or structures such as trauma, love, hope, depression, the even keel, and melodrama through a writing workshop. Explore how to articulate structures of feeling with models of culture and the self. Analyze and experiment with modes of ethnographic attention, the importance of telling detail, and methods of participant observation. Three lecture hours a week for one semester. Anthropology 325E and 325L (Topic 18) may not both be counted. Prerequisite: Upper-division standing.

**ANT 325F. Cultural Heritage on Display.**

Same as American Studies 321S. Explore the public construction and display of traditional American folk culture by studying popular folklife-oriented tourist sites. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Cultural Heritage on Display), 321S, Anthropology 325F, 325L (Topic 11). Prerequisite: Upper-division standing.

**ANT 325G. Technoculture.**

Analyze social groups using digital methods and a process of self-reflection focused on technological mediations of experience. Three lecture hours a week for one semester. Anthropology 325G and 325L (Topic: Technoculture) may not both be counted. Prerequisite: Upper-division standing.

**ANT 325I. Sonic Ethnography.**

Examine sound, themes of listening, noise, silence, audio technology, vibration, and voice. Three lecture hours a week for one semester. Anthropology 324I and 324L (Topic: Sonic Ethnography) may not both be counted. Prerequisite: Upper-division standing.

**ANT 325J. The Photographic Image.**

Applies concepts and practices from visual ethnography to the study of memory, place, and everyday life. Subjects include developing counterintuitive and subversive approaches to practices of looking and techniques of representation. Two lecture hours and two lab hours a week for one semester. Anthropology 325L (Topic: The Photographic Image) and 325J may not both be counted. Prerequisite: Upper-division standing.

**ANT 325O. American Jewish Material Culture.**

Same as Jewish Studies 365 (Topic 12) and Religious Studies 346N. Examines the interplay between material culture and Jewish identity and thought in contemporary America. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic 17), 325O, Jewish Studies 365 (Topic 12), Religious Studies 346 (Topic 9), 346N. Prerequisite: Upper-division standing.

**ANT 325Q. Practices of Looking.**

Explore the development of methodological and analytic tools for the examination of visual culture. Three lecture hours a week for one semester. Anthropology 325L (Topic 15) and 325Q may not both be counted. Prerequisite: Upper-division standing.

**ANT 325R. Cultures and Ecologies.**

Same as Russian, East European, and Eurasian Studies 345 (Topic 8). Examines the anthropology of "nature" and "natural resources," with particular attention to the communities in the arctic and subarctic regions. Use ethnographies to learn about the cultures of peoples who inhabit northern latitudes, especially their cosmological modes of belief and their ecological ways of life. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Cultures and Ecologies), 325L (Topic 16), 325R, Russian, East European, and Eurasian Studies 345 (Topic: Cultures and Ecologies), 345 (Topic 8). Prerequisite: Upper-division standing.

**ANT 325T. Jewish Folklore.**

Same as German, Scandinavian, and Dutch Studies 361W, Jewish Studies 363 (Topic 25), and Religious Studies 357P. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Jewish Folklore), 325T, German, Scandinavian, and Dutch Studies 360 (Topic: Jewish Folklore), 361W, Jewish Studies 363 (Topic: Jewish Folklore), 363 (Topic 25), Religious Studies 357 (Topic: Jewish Folklore), 357P. Prerequisite: Upper-division standing.

**ANT 325U. Austin Jews in the Civil Rights Era.**

Same as American Studies 324J and Jewish Studies 364 (Topic 14). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: UT Jews in Civil Rights Era), 324J, Anthropology 325L (Topic: UT Jews in Civil Rights Era), 325U, Jewish Studies 364 (Topic: UT Jews in Civil Rights Era), 364 (Topic 14). Prerequisite: Upper-division standing.

**ANT 325V. Jewish Cuba.**

Same as Jewish Studies 365 (Topic 16), Latin American Studies 324S, and Religious Studies 366E. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Jewish Cuba), 325V, Jewish Studies 365 (Topic: Jewish Cuba), 365 (Topic 16), Latin American Studies 324L (Topic: Jewish Cuba), 324S, Religious Studies 366 (Topic: Jewish Cuba), 366E. Prerequisite: Upper-division standing.

**ANT 325W. Shamanism and the Primitive.**

Same as Asian Studies 341P, Religious Studies 352G, and Russian, East European, and Eurasian Studies 345 (Topic 12). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Shamanism & the Primitive), 325W, Asian Studies 340 (Topic: Shamanism & the Primitive), 341P, Religious Studies 352 (Topic: Shamanism & the Primitive), 352G, Russian, East European, and Eurasian Studies 345 (Topic: Shamanism & the Primitive), 345 (Topic 12). Prerequisite: Upper-division standing.

**ANT 326C. Native Americans in Texas.**

Same as American Studies 321G. Studies the history of Native Americans in Texas using concepts and evidence from anthropology, history, archaeology, historical geography, and Native American studies. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Native Americans in Texas), Anthropology 324L (Topic: Native Americans in Texas), 326C. Prerequisite: Upper-division standing.

**ANT 326D. Native Americans in the Plains.**

The ethnohistory of some of the most influential Native American groups on the plains, from the arrival of the Spanish through the reservation period. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Native Americans in the Plains), Anthropology 324L (Topic: Native Americans in the Plains), 326D, History 365G (Topic: Native Americans in the Plains). Prerequisite: Upper-division standing.

**ANT 326E. Plains Archaeology: Prehistory and History.**

Explores the evidence of human activities on the central and southern plains from prehistoric to historical times (ca. 11,000 BC to ca. AD 1850). Three lecture hours a week for one semester. Anthropology 324L (Topic: Plains Archaeology: Prehistory and History) and 326E may not both be counted. Prerequisite: Upper-division standing.

**ANT 326F. Great Discoveries in Archaeology.**

Same as European Studies 346 (Topic 2: Great Discoveries in Archaeology). The stories, myths, and people behind some of the great archaeological discoveries. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Great Discoveries in Archaeology), Anthropology 326F, European Studies 346 (Topic 2). Prerequisite: Upper-division standing.

**ANT 326G. Europe Via Ethnography.**

Same as European Studies 346 (Topic 41). Develop a geographical and historical orientation to Europe and examine the cultural complexity of Europe via ethnography. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Europe via Ethnography), 325L (Topic 20), 326G, European Studies 346 (Topic: Europe via Ethnography), 346 (Topic 41). Prerequisite: Upper-division standing.

**ANT 326I. Traveling Culture.**

Same as Russian, East European, and Eurasian Studies 325 (Topic 43). Examine mobility as a point of inquiry into questions of identity, community, belonging, place and landscape, art, representation, cultural

difference, experience, and history. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic 14), 326I, Russian, East European, Eurasian Studies 325 (Topic 43) Prerequisite: Upper-division standing.

**ANT 326L. Cultures in Contact.**

Same as Latin American Studies 324L (Topic 21). History of the interactions of the indigenous peoples of the Americas with Africans, Asians, and Europeans over the past five hundred years. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 326L, Latin American Studies 324L (Topic: Cultures in Contact), 324L (Topic 21). Prerequisite: Upper-division standing.

**ANT 326N. Cultural Resource Management.**

Explore a thorough overview of Cultural Resource Management (CRM). Designed for students who are interested in pursuing a career in archaeology. Three lecture hours a week for one semester. Anthropology 324L (Topic: Cultural Resource Management) and 326N may not both be counted. Prerequisite: Upper-division standing.

**ANT 326O. Empires: Aztec and Spanish.**

Same as Latin American Studies 322L. Examine the daily life of people in the Mexica (commonly known as Aztec) empire after the Spanish conquest. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: Aztecs and Spaniards), 310L (Topic 9), 326O, Latin American Studies 315 (Topic: Aztecs and Spaniards), 322L. Prerequisite: Upper-division standing.

**ANT 327D. Colonial Latin American Archaeology.**

Same as Latin American Studies 324L (Topic 13). Focuses on the Spanish colonies in Latin America. Three lecture hours a week for one semester. Anthropology 327D and Latin American Studies 324L (Topic 13) may not both be counted.

**ANT 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Anthropology.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Anthropology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**ANT 330C. Theories of Culture and Society.**

Examination of the theoretical approaches that have established the intellectual foundations of contemporary sociocultural anthropology. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ANT 432L. Primate Anatomy.**

Comparative and functional anatomy of primates, including humans; emphasis on adaptations and evolution of the various taxa. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Anthropology 301.

**ANT 336L. Native American Cultures North of Mexico.**

Same as American Studies 321 (Topic 3: Native American Cultures North of Mexico). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ANT 340C. Ethnographic Research Methods.**

Introduction to methods used in conducting ethnographic research; emphasis on research design, analysis, writing, and ethical

considerations. Three lecture hours a week for one semester. Prerequisite: Anthropology 302, 305, or 307.

#### **ANT 344K. Films: An Anthropological Perspective.**

Films viewed and discussed. How is cultural meaning communicated? What systems of signification are involved? What are possibilities and limitations of ethnographic films? Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **ANT 345C. Urban Cultures.**

The culture of cities, including the distinctive forms of expressive culture, ethnic and racial conflict, and political or economic activity that cities generate. Three lecture hours a week or two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

#### **ANT 346L. Primate Social Behavior.**

Same as Women's and Gender Studies 323C. Studies primate behavior and why primates do what they do, including basic theoretical principles and the models used to explain primate behavior. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 346L, Women's and Gender Studies 323 (Topic: Primate Social Behavior), 323C. Prerequisite: Anthropology 301.

#### **ANT 346M. Comparative Primate Ecology.**

The basics of how organisms interact with their environment, focusing on a wide range of primates from a comparative perspective. Discusses how various aspects of ecology are used to conserve primate populations. Three lecture hours a week for one semester. Prerequisite: Anthropology 301.

#### **ANT 347C. Methods in Primate Biology.**

The study of primate behavior and the methods by which animal behavior is observed and documented. Students conduct a research project and write a report. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Anthropology 346L, 346M, or Biology 359K with a grade of at least C.

#### **ANT 348. Human Origins and Evolution.**

Detailed examination and analysis of morphological trends evident in the hominid fossil record. Two lecture hours and two laboratory hours a week for one semester. Prerequisite: Anthropology 301.

#### **ANT 348I. Comparative Primate Development.**

Explore "life history theory" and how it pertains to the traits related to growth and reproduction, life, and death in primates. Three lecture hours a week for one semester. Anthropology 348I and 348K (Topic: Comparative Primate Development) may not both be counted. Prerequisite: Anthropology 301 and upper-division standing.

#### **ANT 348J. Sex and Human Nature.**

Same as Women's and Gender Studies 323D. Provides an introduction to the scientific study of sexual behavior, mate choice, and reproduction in humans from the perspective of evolutionary biology; examines a wide range of genetic, ecological, social, physiological, and behavioral aspects of human sexuality. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 348J, 348K (Topic 12), Biology 337 (Topic: Sex and Human Nature), Women's and Gender Studies 323 (Topic: Sex and Human Nature), 323D. Prerequisite: Anthropology 301.

#### **ANT 348K. Current Topics in Biological Anthropology.**

An in-depth study of current topics, controversies, and literature on the evolution, morphology, genetics, and behavioral ecology of primates, including humans. Three lecture hours a week for one semester;

additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Anthropology 301.

#### **Topic 8: Evolutionary Anatomy of the Head and Neck.**

The comparative and functional anatomy of the head and neck in primates and other mammals.

**Topic 10: Primate Conservation.** The theory and practices of conservation biology as applied to primates. Explores species and community characteristics influencing extinction risk, current threats to primates, and potential conservation strategies.

**Topic 11: Early Hominid Evolution.** Examines the early stages of human evolution in Africa starting from the last common great ape ancestor through the origin of the genus *Homo*, looking at the behavioral and morphological adaptations that characterize the earliest stages of human evolution. Anthropology 348K (Topic: Early Hominid Evolution) and 348K (Topic 11) may not both be counted.

#### **ANT 349C. Human Variation.**

The patterns of biological variation within and between human populations. Examines physical, genetic, and behavioral traits, and considers both the microevolutionary and cultural processes that influence those traits. Three lecture hours a week for one semester. Anthropology 348K (Topic: Human Variation) and 349C may not both be counted. Prerequisite: Anthropology 301.

#### **ANT 349D. Anthropological Genetics.**

Basic principles of molecular genetics and population genetics as they relate to the study of humans and other primates. Three lecture hours a week for one semester. Anthropology 348K (Topic: Anthropological Genetics) and 349D may not both be counted. Prerequisite: Anthropology 301.

#### **ANT 350C. Primate Sensory Ecology.**

An integrated perspective on the comparative anatomy, physiology, and ecological significance of sensory adaptations in primates. Three lecture hours a week for one semester. Prerequisite: Anthropology 301.

#### **ANT 351E. Primate Evolution.**

Examination of the fossil record for nonhuman primate evolution, including basic concepts of the anatomy, ecology, and systematics of living primates. Three lecture hours a week for one semester. Prerequisite: Anthropology 301.

#### **ANT 453. Archaeological Analysis.**

Derivation of chronology and cultural information from archaeological data; the role of archaeology in modern life. Four lecture hours a week for one semester. Prerequisite: Anthropology 304.

#### **ANT 353E. Archaeological Laboratory Analysis.**

The analysis of artifacts, features, architecture, and other remains recovered in the field. Four and one-half laboratory hours a week for one semester. Anthropology 324L (Topic: Archaeological Laboratory Analysis) and 353E may not both be counted. Prerequisite: Anthropology 662.

#### **ANT 358Q. Supervised Research.**

Individual instruction. Prerequisite: Upper-division standing.

#### **ANT 360K. The Civilization of the Maya.**

Same as Latin American Studies 324L (Topic 10: The Civilization of the Maya). Maya prehistory and history: the archaeological record, codices and inscriptions, and Spanish conquest writings. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **ANT 662. Field Archaeology.**

Two hundred and forty hours of fieldwork. May be repeated for credit, but may be taken only once on the letter-grade basis. May be repeated for credit.

### **ANT 362K. Archaeology of Texas and Vicinity.**

Cultural history of Texas and neighboring areas, from early prehistoric times to Anglo-American settlements. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **ANT 462M. Archaeological Techniques.**

Problems in planning, organizing, and carrying out archaeological surveys and excavations. Four lecture hours a week for one semester. Prerequisite: Anthropology 453.

### **ANT 366. Anatomy and Biology of the Human Skeleton.**

Comprehensive study of the human skeleton, with special attention to methods of identification. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Upper-division standing and Anthropology 301.

### **ANT 376P, 676P. Research Internship.**

Restricted to anthropology majors. Supervised fieldwork in a business or community setting related to the student's career and research interests. Students conduct research and apply anthropological skills to real-world problems. Approximately 150 or 300 hours of fieldwork. May be repeated for credit, but no more than six semester hours may be counted toward the major requirement. Prerequisite: Upper-division standing and consent of instructor.

### **ANT 379. Problems in Anthropology.**

Supervised individual research on selected problems in anthropology. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in anthropology and consent of instructor.

### **ANT 679H. Honors Tutorial Course.**

For honors candidates in anthropology. Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis. Conference course for two semesters. Prerequisite: For 679HA, admission to the Anthropology Honors Program; for 679HB, Anthropology 679HA.

## **Graduate Courses**

### **ANT 380J. Conference Course in Archaeology.**

Individual instruction in specialized problems of advanced research in archaeology. Individual instruction. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the department prior to registering.

### **ANT 380K. Topics in Archaeological Method and Theory.**

A major category of archaeological topics in which the emphasis is on anthropological theory pertinent to archaeological data and its interpretation. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 6: Ethnohistory and Archaeology.**

### **ANT 382N. Geo-Archaeology and Environmental History.**

Same as Geography 382K. Long-term ecology as reconstructed from settlement and land-use histories. Empirical case studies in environmental history from the Mediterranean region, the Near East, and Mesoamerica. Applications to degradation, desertification, sustainability, and global change. Three lecture hours a week for one semester. Only

one of the following may be counted: Anthropology 382N, Geography 356C, 382K. Prerequisite: Graduate standing.

### **ANT 383M. Topics in Archaeological Techniques and Procedures.**

A major category of archaeological topics in which the emphasis is on techniques and procedures pertinent to the analysis of prehistoric data. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Conference Course.**

**Topic 2: Technological Analysis: Lithics.**

**Topic 4: Technological Analysis: Ceramics.**

**Topic 6: Field Projects.**

### **ANT 683N. Field Archaeology.**

Two hundred forty hours of fieldwork. Prerequisite: Graduate standing and consent of instructor.

### **ANT 384M. Topics in Regional Archaeology.**

Prehistoric cultural developments of a major geographical area; comparative cultural developments in ecologically similar areas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Conference Course.**

### **ANT 386J. Conference Course in Social Anthropology.**

Individual instruction in specialized problems of advanced research in social anthropology. Individual instruction. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the department prior to registering.

### **ANT 388. Topics in Biological Anthropology.**

Constitutes one of two principal categories of courses in biological anthropology covering substantive studies in primate behavior, primate anatomy and evolution, human evolution, and growth and development. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 5: Primate Evolution.**

**Topic 7: Human Evolution.**

**Topic 8: Primate Anatomy.**

**Topic 9: Primate Behavior.**

**Topic 11: Hominid Paleoecology.**

**Topic 13: Primate Ecology.** An introduction to the biology and ecology of living primates—prosimians, monkeys, apes, and humans.

### **ANT 388C. Applied Data Analysis.**

A hands-on, practical overview of methods and tools for applied data science for graduate students and senior undergraduates in the natural and social science disciplines. Three lecture hours a week for one semester. Anthropology 388 (Topic: Applied Data Analysis) and 388C may not both be counted. Prerequisite: Graduate standing.

### **ANT 388J. Conference Course in Biological (Physical) Anthropology.**

Individual instruction in specialized problems of advanced research in biological anthropology. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the department prior to registering.

### **ANT 388K. Topics in General Anthropology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 2: Anthropology of Education.** Same as Curriculum and Instruction 380G. A study of social life in contemporary American schools from an anthropological perspective. Prerequisite: Graduate standing, and twelve semester hours of upper-division coursework in education or consent of instructor.

**Topic 5: Ethnographic and Qualitative Research Methods.**

### **ANT 389. Topics in Unwritten Languages.**

Intensive instruction in selected unwritten, usually aboriginal, languages. Three lecture hours and five laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **ANT 389J. Conference Course in Unwritten Languages.**

Individual instruction in specialized problems in selected unwritten, usually aboriginal, languages. Individual instruction. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the department prior to registering.

### **ANT 389K. Topics in Regional Ethnography.**

Anthropological surveys and analyses of societies and cultures of distinctive world areas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Conference Course.**

**Topic 10: Indo-European Culture and Religion.**

**Topic 17: Mexican America.**

**Topic 19: Race and Ethnicity in American Society.** Same as Latin American Studies 391 (Topic 5: Race and Ethnicity in American Society).

**Topic 20: South Asia: History and Ethnography.** Issues in the history and ethnography of the Indian subcontinent. Topics may include class, caste, and ethnicity; communalism and secularism; colonialism and postcolonialism; the state and ethnic violence; anthropology, Indology, and history.

### **ANT 391. Topics in Social Anthropology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 4: Cultural Construction of Masculinity.**

**Topic 7: Researching Women in Institutions.**

**Topic 15: History and Anthropology.**

**Topic 22: Representation and Signification.**

**Topic 27: Consciousness and Resistance.**

**Topic 32: Gender, Ethnicity, and Nationalism.** Same as Asian Studies 391 (Topic 4: Gender, Ethnicity, and Nationalism).

**Topic 34: Ethnographies of Global Asia.** Same as Asian Studies 391H. Methods and ethnographic study of transnational Asia and the Asian diaspora. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 391 (Topic: Ethnography of Global Asia), 391 (Topic 34), Asian Studies 384 (Topic: Ethnography of Global Asia), 391H. Additional prerequisite: Graduate standing.

### **ANT 391C. Anthropology of East Asia.**

Same as Asian Studies 390 (Topic 10). Explore contemporary anthropological research on East Asia, with a focus on a set of broad subjects (money, mobilities, cosmologies, media, etc.), and a consideration of what constitutes "the anthropological approach" to these subjects. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 391 (Topic: Anthropology of

East Asia), 391C, Asian Studies 390 (Topic: Anthropology of East Asia), 390 (Topic 10). Prerequisite: Graduate standing.

### **ANT 391L. Topics in Research Methods in Physical Anthropology.**

In this second major category of courses in physical anthropology are listed those that have research techniques as their principal focus. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 6: Analysis of Primate Anatomy.**

**Topic 8: Primate Sensory Ecology.** An integrated perspective on the comparative anatomy, physiology, and ecological significance of sensory adaptations in primates.

### **ANT 392C. Core Topics in Anthropology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ANT 392G. AnthroLab.**

Three lecture hours a week for one semester. Anthropology 392G and 392Q may not both be counted. Prerequisite: Graduate standing.

### **ANT 392J. Introduction to Biological Anthropology: Behavior, Genetics, and Variation.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ANT 392K. Introduction to Graduate Archaeology.**

Core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ANT 392L. Introduction to Biological Anthropology: Primate Morphology and Evolution.**

Three lecture hours a week for one semester. Core course for physical anthropology students. Prerequisite: Graduate standing.

### **ANT 392M. Introduction to Graduate Social Anthropology.**

Core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ANT 392N. Introduction to Graduate Linguistic Anthropology.**

Same as Linguistics 396 (Topic 2: Introduction to Graduate Linguistic Anthropology). Core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **ANT 392P. Introduction to Cultural Forms.**

Core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ANT 392R. African Diaspora Anthropology.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ANT 392S. Introduction to Graduate Feminist Anthropology.**

Core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ANT 392T. Mesoamerica and Borderlands.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ANT 393. Topics in Linguistic Anthropology.**

Training and individual research in subjects concerning the relations between language and culture. Three lecture hours a week for one

semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 3: Speech Play and Verbal Art.** Same as Linguistics 393 (Topic 6: Speech Play and Verbal Art). Additional prerequisite: Consent of instructor.

**Topic 7: Discourse Analysis.** Additional prerequisite: Consent of instructor.

**Topic 8: Ethnography of Speaking.** Same as Linguistics 396 (Topic 3: Ethnography of Speaking). Additional prerequisite: Consent of instructor.

**Topic 14: Language and Power.** Additional prerequisite: Consent of instructor.

### **ANT 393J. Conference Course in Linguistic Anthropology.**

Individual instruction in specialized problems of advanced research in linguistic anthropology. Individual instruction. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the department prior to registering.

### **ANT 394J. Conference Course in Cultural Forms.**

Individual instruction in specialized problems of advanced research in cultural forms. Individual instruction. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the department prior to registering.

### **ANT 394M. Topics in Folklore, Public Culture, and Cultural Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 4: Anthropology of the Performing Arts.**

**Topic 13: Cultural Poetics.**

**Topic 19: Foundations of Ethnomusicology.**

**Topic 20: Field Methods in Ethnomusicology.**

**Topic 26: Marxism and Expressive Culture.**

**Topic 29: Object, Matter, and Desire.** Examines various questions regarding matter and meaning.

**Topic 30: Affect.** A survey of theories of affect, including those of Freud, Foucault, and Deleuze, feminist theory, phenomenology, globalization theory, and ethnography. Anthropology 394M (Topic: Affect) and 394M (Topic 30) may not both be counted.

**Topic 31: Public Culture.** Introduction to the theory and ethnography of public culture.

**Topic 32: Deleuze.** The major works of Gilles Deleuze, including the study of the ontology of differences and flow, resonance, affect, vitality, lines of flight, and assemblage.

**Topic 33: Cultural Critique.** Various forms of cultural critique, including culture jamming, speed theory, experimental ethnographic writing, posthumanism, postpositivism, and the memoir.

**Topic 34: New Ethnographic Writing.** Reading and writing new forms of ethnography, including experimental writing, performative writing, new journalism, and the memoir.

**Topic 35: Indigenous Cultural Politics.** The worldwide significance of indigenous movements, identities, and cultural forms.

**Topic 36: Representational Practices.** Theories of representation and representational practices, including the representation of collective selves and others in colonial and ethnographic narratives, collections, and displays.

**Topic 37: Cultural Analysis: The Case of Class.** The development of class analysis in history, sociology, and anthropology, including innovative approaches to the reproduction and performance of class identities.

**Topic 38: Cultural Analysis: The Case of Race.** Current uses of cultural analysis across a range of disciplines, focusing on how race is accounted for in a variety of invocations of culture.

**Topic 39: Cities in Time and Space.** The difficulties associated with making cities intelligible in terms of their distinctive historical and cultural dynamics.

**Topic 40: Anthropology and Mass Media.** Anthropology and mass media both inside and outside the West. Includes television, film, and popular music.

**Topic 41: Anthropology of Science.** Anthropological perspective on the position of scientific disciplines within their broader social contexts and the transformations of social orders based on developments of scientific knowledge.

**Topic 42: Foucault and Cultural Studies.** Examination of Foucault's major works, including an assessment of his theoretical and methodological contributions to scholarly research and political activism.

**Topic 43: Black Queer Studies.**

**Topic 44: Advanced Topics in Black Feminisms.** Theory and practice of black and Third-World feminisms, including as political space, activist methodology, artistic inspiration, and scholarly choice.

**Topic 45: Contemporary Cuban Public Culture(s).** The major preoccupations and tensions of public culture in the state of Cuba and the nation of individual Cubans.

**Topic 46: Black Public Culture: Diasporic Texts and Contexts.** Survey of cultural expressions and political moments of African-descended people since the social, cultural, and political upheavals of the 1970s.

### **ANT 395K. Cultural Adaptation and Change.**

Same as Geography 395. A graduate-level introduction to cultural behavior, adaptation, evolution and transformation, with emphasis on demography, diffusion, migration, ethnicity, and institutions. Three lecture hours a week for one semester. Prerequisite: Graduate standing in anthropology, geography, or a related field, and consent of instructor.

### **ANT 397. Conference Course in Anthropology.**

Individual instruction for graduate students on specialized problems of advanced research. Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **ANT 397F. Doctoral Forum.**

Development of skills in writing, revision, and presentation of papers and grant proposals, and in job hunting. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ANT 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in anthropology and consent of the graduate adviser; for 698B, Anthropology 698A.

### **ANT 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in anthropology and consent of the graduate adviser.

### **ANT 398T. Supervised Teaching in Anthropology.**

Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **ANT 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## Professional Courses

# Applied Learning and Development Courses

## Applied Learning and Development: ALD

### Lower-Division Courses

#### ALD 301C. Freshman Seminar.

Restricted to first-semester freshmen. Small-group seminar involving reading, discussion, writing, and oral reports. Introduction to University resources, including libraries, computer and research facilities, and museums. Several sections are offered each semester, with various topics and instructors. Two lecture hours and one discussion hour a week for one semester.

#### ALD 301D. Connecting Research Experience.

Restricted to freshmen and sophomores. Supervised research associated with the Connexus Bridging Disciplines Program. The equivalent of three lecture hours a week for one semester. With consent of the Connexus Bridging Disciplines Program, may be repeated for credit. Prerequisite: Admission to the Connexus Bridging Disciplines Program.

#### ALD 118C, 218C, 318C. Forum Seminar Series.

Restricted to freshmen and sophomores. Lectures and discussions on various contemporary issues. Emphasis on multidisciplinary perspectives and critical discourse. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary.

#### ALD 119, 219, 319, 419, 519, 619. International Learning Seminars.

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Applied Learning and Development 119, 219, 319, 419, 519, 619 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Upper-Division Courses

#### ALD 320. Cognition, Human Learning, and Motivation.

Current theories concerning conditioning learning and remembering, attention, knowledge representation and retrieval, problem solving, critical thinking, transfer, assessment, peer learning, and motivation; applying theories to educational and instructional practices. Three lecture hours a week for one semester. Prerequisite: Three semester hours of coursework in behavioral sciences.

#### ALD 320C. Connecting Research Experience.

Supervised research associated with the Connexus Bridging Disciplines Program. The equivalent of three lecture hours a week for one semester. With consent of the Connexus Bridging Disciplines Program, may be repeated for credit. Prerequisite: Upper-division standing and admission to the Connexus Bridging Disciplines Program.

#### ALD 321. Play in Early Childhood Development.

Theoretical and empirical bases for observing children in play; cognitive, social, and communicative stages related to developmental theory; children's adjustment related to social and emotional theories; motivational value of play. Three lecture hours a week for one semester, with field hours to be arranged.

#### ALD 322. Individual Differences.

Introduction to individual differences among people through the life span. Examines areas of exceptionality within the context of typical development: current research trends; theoretical and legal considerations; and practice-related issues, including family involvement, cultural and linguistic diversity, and educational perspectives. Orientation to assistive technology. Three lecture hours a week for one semester, with field hours to be arranged. Prerequisite: Three semester hours of coursework in psychology.

#### ALD 323. Language Acquisition.

Language structure; sequence, process, cognitive and social aspects of language acquisition and use; language variation. Three lecture hours a week for one semester. Required for certification in early childhood education. Prerequisite: Three semester hours of coursework in psychology.

#### ALD 324. Literacy Acquisition.

Processes of becoming literate; cognitive insights that move a child to literacy; relationships between reading and writing and among individual characteristics, social factors, and literacy growth. Three lecture hours a week for one semester. This course or Psychology 338K is required for the reading specialization. Prerequisite: Three semester hours of coursework in psychology.

#### ALD 325. Second Language Acquisition.

Acquisition by children or adults of English as a second language. Simultaneous acquisition of two languages, adding a second language, language processing, order of acquisition, role of the first language. Three lecture hours a week for one semester, with field hours to be arranged. Required for certification in bilingual education. Applied Learning and Development 325 and 329 may not both be counted. Prerequisite: Three semester hours of coursework in psychology.

#### ALD 326. Language of Children with and without Disabilities.

Restricted to special education majors. Physiological, prelinguistic, and linguistic components of language; theoretical framework of communication and language development in monolingual and bilingual populations; problems of language development in special populations; language assessment tools. Technological skills component. Three lecture hours a week for one semester. Required for certification in generic special education.

#### ALD 327. Sociocultural Influences on Learning.

Human learning in multisocial, multilingual, and multicultural contexts; realities of society and their impact on learning; social concerns such as prejudice, stereotyping, cross-cultural attitudes, bilingual issues, parent and community involvement. Three lecture hours a week for one semester, with field hours to be arranged. Only one of the following may be counted: African and African Diaspora Studies 352F, 372D (Topic 2), Applied Learning and Development 327, Mexican American Studies 374 (Topic: Sociocultural Influences on Learning). Prerequisite: Three semester hours of coursework in psychology.

#### ALD 327G. Study Abroad: Education, Culture and Diversity.

Comparative analysis of human learning in multisocial, multilingual, and multicultural contexts in the United States and Latin America. Social concerns such as prejudice, stereotyping, cross-cultural attitudes, bilingual issues, and parent and community involvement. Particular focus on transnationalism and immigration in the United States from Central America and Mexico. The equivalent of three lecture hours a week for one semester. Taught in Latin America.

### **ALD 328. Applied Human Learning.**

Development, cognition, language, and sociocultural influences in learning contexts; child assessment, identification of learning styles, and tests and measurements. Fieldwork to provide a theoretical basis for professional assessment, referral, and placement. Three lecture hours a week for one semester, with fieldwork to be arranged. Prerequisite: Admission to the professional development sequence of the Bachelor of Science in Applied Learning and Development degree program.

### **ALD 329. Acquisition of Language and Literacies.**

Subjects include initial language and literacy acquisition theory; second language acquisition theory; relations among first and additional languages in literacy and language acquisition; home, school, and learners' perspectives; and current issues in literacy and multilingual classrooms. Three lecture hours a week for one semester. Additional fieldwork hours may be required. Applied Learning and Development 325 and 329 may not both be counted. Prerequisite: Applied Learning and Development 327 or 327G.

### **ALD 329G. Study Abroad: Acquisition of Language and Literacies in the United States and Latin America.**

Exploration of the theory and practice of language acquisition in cross-cultural contexts in Latin America and the United States. Subjects include the instruction of English as a second language, social justice for bilingual learners and speakers of minority languages, and connections to multilingual communities. Particular focus on language and immigration issues in the United States and Latin America. The equivalent of three lecture hours a week for one semester. Taught in Latin America.

### **ALD 330. Language in Education.**

Theoretical and practical perspectives on the nature of language in education, with a focus on implications for English language learners in classroom settings; linguistic structures and functions; discourse, phonology, morphology, syntax, and semantics across languages and throughout development; and language varieties. Three lecture hours a week for one semester. Additional fieldwork hours may be required. Prerequisite: Three semester hours of coursework in psychology.

### **ALD 331. Restorative Practices.**

Focus on community engagement and social justice issues related to schooling access and equity. Includes a field based component that promotes practices needed to implement restorative practices in multiple settings. Three lecture hours per week. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **ALD 333. Children's Literature.**

For future teachers, an investigation of literature written for children from early childhood through age twelve. Includes an investigation of genres, authors, themes, and forms, and an introduction to ways of bringing literature to children, facilitated by extensive discussion. Three lecture hours a week for one semester, with field hours to be arranged.

### **ALD 179, 279, 379, 479, 579, 679. International Learning Seminars.**

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Applied Learning and Development 179, 279, 379, 479, 579, 679 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## **Graduate Courses**

## **Professional Courses**

## **Arabic Courses**

### **Arabic: ARA**

#### **Lower-Division Courses**

##### **ARA 601C. Intensive Arabic I.**

Not open to native speakers of Arabic. First semester of intensive Arabic language instruction. Six lecture hours a week for one semester. Only one of the following may be counted: Arabic 601C, 506, 508. Arabic 601C and 106C may not both be counted.

##### **ARA 305. Arabic Tutorial.**

The basics of the Arabic language. Individual instruction. May not be used to fulfill the foreign language requirement for any bachelor's degree. Prerequisite: Consent of the faculty coordinator.

##### **ARA 506. First-Year Arabic I.**

Not open to native speakers of Arabic. First semester of Arabic language instruction. Five lecture hours a week for one semester. Only one of the following may be counted: Arabic 601C, 506, 508. Prerequisite: Credit or registration for Arabic 106C.

##### **ARA 106C. Conversation for First-Year Arabic I.**

Not open to native speakers of Arabic. One lecture hour a week for one semester. Arabic 601C and 106C may not both be counted. Prerequisite: Credit or registration for Arabic 506.

##### **ARA 507. First-Year Arabic II.**

Not open to native speakers of Arabic. Continuation of Arabic 506. Five lecture hours a week for one semester. Only one of the following may be counted: Arabic 507, 509, 611C. Prerequisite: Arabic 506 and 106C with a grade of at least C in each, and credit or registration for Arabic 107C.

##### **ARA 107C. Conversation for First-Year Arabic II.**

Not open to native speakers of Arabic. One lecture hour a week for one semester. Arabic 107C and 611C may not both be counted. Prerequisite: Arabic 506 and 106C with a grade of at least C in each, and credit or registration for Arabic 507.

##### **ARA 508. Modern Standard Arabic I.**

Designed to provide students with basic competence in Modern Standard Arabic, targeting the skills of speaking, reading, writing, and listening. Five lecture hours a week for one semester. Only one of the following may be counted: Arabic 601C, 506, 508.

##### **ARA 509. Modern Standard Arabic II.**

Continuation of Arabic 508. Five lecture hours a week for one semester. Only one of the following may be counted: Arabic 507, 509, 611C. Prerequisite: Arabic 508 with a grade of at least C.

##### **ARA 611C. Intensive Arabic II.**

Not open to native speakers of Arabic. Six lecture hours a week for one semester. Arabic 611C and 512K may not both be counted. If taken in residence, only one of the following may be counted: Arabic 507, 509, 611C. If taken in residence, Arabic 107C and 611C may not both be counted. Prerequisite: Arabic 601C with a grade of at least C.

##### **ARA 112C. Conversation for Second-Year Arabic I.**

Not open to native speakers of Arabic. One lecture hour a week for one semester. Arabic 112C and 621K may not both be counted. Prerequisite:

Arabic 507 and 107C with a grade of at least C in each, and credit or registration for Arabic 512K.

### **ARA 112D. Conversation for Second-Year Arabic II.**

Not open to native speakers of Arabic. One lecture hour a week for one semester. Arabic 112D and 621L may not both be counted. Prerequisite: Arabic 112C and 512K with a grade of at least C in each, and credit or registration for Arabic 512L.

### **ARA 512K. Second-Year Arabic I.**

Not open to native speakers of Arabic. Five lecture hours a week for one semester. Arabic 512K and 621K may not both be counted. Prerequisite: Arabic 507 and 107C with a grade of at least C in each, and credit or registration for Arabic 112C.

### **ARA 512L. Second-Year Arabic II.**

Not open to native speakers of Arabic. Continuation of Arabic 512K. Five lecture hours a week for one semester. Arabic 512L and 621L may not both be counted. Prerequisite: Arabic 112C and 512K with a grade of at least C in each, and credit or registration for Arabic 112D.

### **ARA 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Arabic.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework counted in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **ARA 321. Introduction to Arabic Dialects.**

Introduction to Arabic as spoken throughout the Arab world. Three lecture hours a week for one semester.

### **ARA 621K. Intensive Arabic III.**

Not open to native speakers of Arabic. Six lecture hours a week for one semester. If taken in residence, only one of the following may be counted: Arabic 512K, 621K. Arabic 112C and 621K may not both be counted. Prerequisite: Arabic 611C with a grade of at least C.

### **ARA 621L. Intensive Arabic IV.**

Not open to native speakers of Arabic. Six lecture hours a week for one semester. If taken in residence, only one of the following may be counted: Arabic 512L, 621L. Arabic 112D and 621L may not both be counted. Prerequisite: Arabic 621K with a grade of at least C.

### **ARA 322K. Levantine Arabic.**

Not open to native speakers of Arabic. Three lecture hours a week for one semester. Prerequisite: Arabic 512L or 621L with a grade of at least C.

### **ARA 325K. Egyptian Arabic.**

Not open to native speakers of Arabic. Introduction to the Egyptian dialect of Arabic. Three lecture hours a week for one semester. Prerequisite: Arabic 512L or 621L with a grade of at least C.

### **ARA 327K. Advanced Spoken Media Arabic I.**

Development of the specialized vocabulary and skills needed in the media or public policy sectors of the Arab-speaking world. Three lecture hours a week for one semester. Prerequisite: Arabic 531L with a grade of at least B-.

### **ARA 327L. Advanced Spoken Media Arabic II.**

Development of the specialized vocabulary and skills needed in the media or public policy sectors of the Arab-speaking world. Three lecture hours a week for one semester. Prerequisite: Arabic 327K with a grade of at least B-.

### **ARA 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Arabic.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **ARA 130D. Arabic across Disciplines.**

Students read and discuss Arabic language materials related to the subject matter of another designated course. One lecture hour a week for one semester. No more than three semester hours may be counted toward the major in either Middle Eastern Studies or Middle Eastern Languages and Culture. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **ARA 531K. Intensive Arabic V.**

Not open to native speakers of Arabic. Five lecture hours a week for one semester. Prerequisite: Arabic 112D and 512L with a grade of at least C in each, or Arabic 621L with a grade of at least C.

### **ARA 531L. Intensive Arabic VI.**

Not open to native speakers of Arabic. Sixth semester of intensive Arabic language instruction. Five lecture hours a week for one semester. Prerequisite: Arabic 531K with a grade of at least C.

### **ARA 360C. Arabic Readings in Classical Islamic Texts.**

Three lecture hours a week for one semester. Arabic 360C and 360L (Topic: Ara Readings Classcl Isl Txts) may not both be counted. Prerequisite: Arabic 531L with a grade of at least C.

### **ARA 360D. Quranic Arabic.**

Three lecture hours a week for one semester. Arabic 360D and 360L (Topic: Quranic Arabic) may not both be counted. Prerequisite: Arabic 531L with a grade of at least C.

### **ARA 360E. Contemporary World Challenges.**

Three lecture hours a week for one semester. Arabic 360E and 360L (Topic: Contemporary World Challenges) may not both be counted. Prerequisite: Arabic 531L with a grade of at least C.

### **ARA 360L. Topics in Arabic Language, Literature, and Culture.**

Close textual study of prose or poetry in Arabic. Some topics may focus on the cultural impact of literature and language. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Arabic 531L with a grade of at least C.

**Topic 2: Arab Women Poets.** Same as Islamic Studies 373 (Topic 7) and Middle Eastern Studies 342 (Topic 26). Only one of the following may be counted: Arabic 360L (Topic 2), Comparative Literature 323 (Topic: Arab Women Poets), Islamic Studies 373 (Topic 7), Middle Eastern Studies 342 (Topic 26). Additional prerequisite: Upper-division standing, and Arabic 420L with a grade of at least C in each, or Arabic 531L with a grade of at least C.

**Topic 4: Translating Arabic Texts.** Only one of the following may be counted: Arabic 360L (Topic 4), 380C (Topic 8: Translating Arabic

Texts), Middle Eastern Studies 381 (Topic 39: Translating Arabic Texts).

**Topic 5: Egyptian Culture and Society.** Arabic 360L (Topic: Egyptian Culture and Society) and 360L (Topic 5) may not both be counted.

**Topic 6: Arab Political Speeches in War and Peace.** Arabic 360L (Topic: Arab Political Speeches in War and Peace) and 360L (Topic 6) may not both be counted.

**Topic 7: The Arab Spring.** Arabic 360L (Topic: The Arab Spring) and 360L (Topic 7) may not both be counted. Additional prerequisite: Upper-division standing, and the following with a grade of at least C: Arabic 120D and 420L, or 531L.

**Topic 8: Readings in Arabic Literature.** Arabic 360L (Topic: Readings in Arabic Literature) and 360L (Topic 8) may not both be counted. Additional prerequisite: Upper-division standing and the following with a grade of at least C: Arabic 120D and 420L, or 531L.

**Topic 10: Palestine and the Palestinians: A Journey Through Time.** Only one of the following may be counted: Arabic 360L (Topic: Palestine and the Palestinians), 360L (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 21), Middle Eastern Studies 342 (Topic 31). Additional prerequisite: Arabic 531L with a grade of at least C.

**Topic 11: Arabic Voices from Poetry to Rap.** Focuses on contemporary poetry, specifically examining popular poetry, graphic poetry, rap, slam, hip-hop, and Twitter as a poetic genre. Investigates crossings between contemporary and classical forms, as well as Arabic and non-Arabic genres. Analyzes new poetic forms expressed in a variety of dialectics and cultural contexts, addressing the role of music, digital technology, and political developments in shaping new poetry. Explores various texts in Modern Standard Arabic and dialects from across the Arab world. Three lecture hours a week for one semester. Arabic 360L (Topic: Arabic Voices from Poetry to Rap) and 360L (Topic 11) may not both be counted.

### **ARA 369. Conference Course in Arabic Language and Literature.**

Supervised individual study of selected problems in Arabic language or literature. Conference course. May be repeated for credit. Prerequisite: Nine semester hours of upper-division coursework in Arabic and consent of instructor.

### **ARA 679H. Honors Tutorial Course.**

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper. Conference course for two semesters. Prerequisite: For 679HA, admission to the Arabic Language and Literature Honors Program; for 679HB, Arabic 679HA.

## **Graduate Courses**

### **ARA 380C. Topics in Arabic Language.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing. Additional prerequisites may vary with the topic and are given in the Course Schedule.

**Topic 8: Translating Arabic Texts.** Same as Middle Eastern Studies 381 (Topic 39: Translating Arabic Texts). Only one of the following may be counted: Arabic 360L (Topic 4: Translating Arabic Texts), 380C (Topic 8), Middle Eastern Studies 381 (Topic 39).

### **ARA 381H. Intensive Graduate Language Instruction I.**

Not open to native speakers of Arabic. Intensive cultural and literacy-focused training in Arabic at the beginning level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement

test. Six lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ARA 381J. Intensive Graduate Language Instruction II.**

Not open to native speakers of Arabic. Intensive cultural and literacy-focused training in Arabic at the low-intermediate level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Six lecture hours a week for one semester. Prerequisite: Graduate standing and Arabic 381H with a grade of at least B.

### **ARA 381K. Intensive Graduate Language Instruction III.**

Not open to native speakers of Arabic. Intensive cultural and literacy-focused training in Arabic at the intermediate level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Six lecture hours a week for one semester. Prerequisite: Graduate standing and Arabic 381J with a grade of at least B.

### **ARA 381L. Intensive Graduate Language Instruction IV.**

Not open to native speakers of Arabic. Intensive cultural and literacy-focused training in Arabic at the high-intermediate level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Six lecture hours a week for one semester. Prerequisite: Graduate standing and Arabic 381K with a grade of at least B.

### **ARA 381M. Intensive Graduate Language Instruction V.**

Not open to native speakers of Arabic. Intensive cultural and literacy-focused training in Arabic at the advanced level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Five lecture hours a week for one semester. Prerequisite: Graduate standing and Arabic 381L with a grade of at least B.

### **ARA 381N. Intensive Graduate Language Instruction VI.**

Not open to native speakers of Arabic. Intensive cultural and literacy-focused training in Arabic at the advanced level in preparation for research in the Arab world or with Arabic sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Five lecture hours a week for one semester. Prerequisite: Graduate standing and Arabic 381M with a grade of at least B.

### **ARA 382C. Topics in Arabic Linguistics and Philology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Arabic 531L with a grade of at least B. Additional prerequisites may vary with the topic.

**Topic 2: Grammar of the Arabic Language.** Same as Linguistics 396 (Topic 7).

**Topic 3: Arab Grammarians.**

**Topic 4: History of the Arabic Language.** Same as Linguistics 383 (Topic 6).

**Topic 5: The Qur'an: A Linguistic Analysis.**

**Topic 6: Varieties and Registers of Arabic.** The historical and linguistic development of Arabic varieties and registers, past and present. Arabic 383C (Topic: Varieties and Registers of Arabic) and 382C (Topic 6) may not both be counted.

**Topic 7: Comparative Arabic Dialects.** Additional prerequisite: Some familiarity with an Arabic dialect.

**Topic 8: Introduction to Arabic Linguistics.** Introduction to the major areas of research in Arabic linguistics. Includes formal linguistics and sociolinguistics, and code-switching and dialectology.

**Topic 9: The Structure of Palestinian Arabic.** A detailed examination of the syntax of Palestinian Arabic. Additional prerequisite: A graduate course in Arabic grammar or theoretical syntax.

### **ARA 383C. Topics in Arabic Language Teaching, Pedagogy, and Applied Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Arabic 531L with a grade of at least B. Additional prerequisites may vary with the topic.

**Topic 1: Teaching Arabic as a Foreign Language.** Theory and practice of foreign or second language acquisition, applied to Arabic instruction. Arabic 380C (Topic: Teaching Arabic as a Foreign Language) and 383C (Topic 1) may not both be counted.

**Topic 3: Curriculum Design in Arabic.** Examines three curricular models that are widely used in teaching foreign languages: proficiency-based instruction, task-based instruction, and content-based instruction. Additional prerequisite: Arabic 383C (Topic 1).

### **ARA 384C. Topics in Arabic Literature.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Arabic 531L with a grade of at least B; additional prerequisites vary with the topic.

**Topic 5: Arab Women Poets.**

**Topic 6: Classical Arabic Akhbar.** Examines classical Arabic prose from the perspective of the individual khabar or story, which was the basic unit for all humanities works, and works in history, geography, zoology, cosmology, and anthropology.

**Topic 9: New Arabic Writings.**

**Topic 10: Encountering the West in Modern Arabic Literature.** Investigates the representation of the West in Arabic literature from the nineteenth century onward by examining travel narratives, novels, essays, and visual texts.

**Topic 11: Survey of Classical Arabic Literature.** Additional prerequisite: Consent of instructor.

**Topic 12: Survey of Modern Arabic Literature.** Additional prerequisite: Consent of instructor.

### **ARA 386K. Advanced Spoken Media Arabic I.**

Development of the specialized vocabulary and skills needed in the media and public policy sectors of the Arab-speaking world. Three lecture hours a week for one semester. Arabic 380C (Topic: Advanced Spoken Media Arabic I) and 386K may not both be counted. Prerequisite: Graduate standing.

### **ARA 386L. Advanced Spoken Media Arabic II.**

Development of the specialized vocabulary and skills needed in the media and public policy sectors of the Arab-speaking world. Three lecture hours a week for one semester. Arabic 380C (Topic: Advanced Spoken Media Arabic II) and 386L may not both be counted. Prerequisite: Graduate standing and Arabic 386K.

### **ARA 387. Topics in Arab Culture.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Arabic 531L with a grade of at least B. Additional prerequisites may vary with the topic.

**Topic 1: Contemporary Arabic Cinema.**

### **ARA 388. Research Methods and Bibliography in Arabic Studies.**

Arabic classical and modern sources on a variety of subjects, as well as modern scholarship in Arabic studies both in the West and in the

Arab world. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Arabic 531L with a grade of at least B. Additional prerequisites may vary with the topic.

### **ARA 389. Conference Course in Arabic Studies.**

Supervised individual study of selected problems in Arabic studies. Conference course. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **ARA 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Arabic studies and consent of the graduate adviser; for 698B, Arabic 698A.

### **ARA 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Arabic studies and consent of the graduate adviser.

### **ARA 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Architectural Engineering Courses**

## **Architectural Engineering: ARE**

### **Lower-Division Courses**

#### **ARE 102. Introduction to Architectural Engineering.**

Restricted to architectural engineering and architecture majors. Introduction to architectural engineering as a career by use of case studies. One lecture hour a week for one semester. Offered in the fall semester only.

#### **ARE 217. Computer-Aided Design and Graphics.**

Introduction to procedures in computer-aided design and computer graphics used in producing plans and three-dimensional electronic models associated with building design and construction. Three hours of lecture and laboratory a week for one semester. Prerequisite: Architectural Engineering 102.

#### **ARE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Architectural Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Civil, Architectural and Environmental Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **ARE 320K. Introduction to Design I.**

Introduction to design principles, concepts, and problem-solving approaches. Issues addressed by a series of two- and three-dimensional studies. Nine laboratory hours a week for one semester. Offered in the

fall semester only. Prerequisite: Architectural Engineering 217, and credit or registration for Engineering Mechanics 319.

### **ARE 320L. Introduction to Design II.**

Continuation of Architectural Engineering 320K. Focus on building design. Nine laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Architectural Engineering 320K, and credit or registration for Civil Engineering 329.

### **ARE 323K. Project Management and Economics.**

Solving economic problems related to construction and engineering; construction project management techniques; characteristics of construction organizations, equipment, and methods. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 333T, and Mathematics 408D or 408M.

### **ARE 325L. Cooperative Engineering.**

This course covers the work period of architectural engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Architectural Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Architectural Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Architectural Engineering 325LY and appointment for a full-time cooperative work tour.

### **ARE 225M. Cooperative Engineering.**

Covers the work period of architectural engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Architectural Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Architectural Engineering 225MA and appointment for a full-time cooperative work tour.

### **ARE 125N. Cooperative Engineering.**

This course covers the work period of architectural engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Architectural Engineering 325LZ or 225MB, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

### **ARE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Architectural Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Civil, Architectural and Environmental Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **ARE 335. Materials and Methods of Building Construction.**

Elements and properties of construction materials and components; fabrication and construction technologies, methods, and processes; engineering systems characteristic of commercial buildings such as foundation, structural, and building envelope systems. Three or four

lecture and discussion hours a week for one semester. Prerequisite: Civil Engineering 324P.

### **ARE 345K. Masonry Engineering.**

Behavior and design of masonry with respect to architectural, economic, and structural criteria. Four and one-half hours a week for one semester, including lecture and laboratory. Prerequisite: Civil Engineering 324P.

### **ARE 346N. Building Environmental Systems.**

Analysis and design of building air conditioning systems; heating and cooling load calculations, air side systems analysis, air distribution, building electrical requirements, electrical and lighting systems. Three lecture hours a week for one semester. Prerequisite: Physics 303L, 103N, and one of the following: Mechanical Engineering 310T, 316T, 320, or 326.

### **ARE 346P. HVAC Design.**

Design and analysis of heating, ventilation, and cooling systems for buildings. Focus on application of fundamental energy and mass transfer principles to HVAC components. Three lecture hours a week for one semester. Prerequisite: Architectural Engineering 346N.

### **ARE 358. Cost Estimating in Building Construction.**

Building construction estimating from plans and specifications, unit prices, lump sum estimates, job sites, overhead, general overhead, and bidding procedures. Estimating methods throughout the design process. Two lecture hours and three supervised laboratory hours a week for one semester. Prerequisite: Architectural Engineering 335.

### **ARE 362L. Structural Design in Wood.**

Engineering properties of wood; design of glued-laminated and lumber structural members, connections, and simple systems; introduction to shear walls and diaphragms. Five hours of lecture and supervised work a week for one semester. Prerequisite: Civil Engineering 329.

### **ARE 465. Integrated Design Project.**

Design of low-rise buildings, including structural and environmental systems; preparation of contract documents. Six hours a week for one semester, including lecture and laboratory. Prerequisite: Architectural Engineering 320L, 346N, credit or registration for 335, Civil Engineering 331 or 335, and 357.

### **ARE 366. Contracts, Liability, and Ethics.**

Legal aspects of engineering and construction contracts; contract formation, interpretation, rights and duties, and changes; legal liabilities and professional ethics of architects, engineers, and contractors. Two lecture hours and two laboratory hours a week for one semester. Prerequisite: Architectural Engineering 323K.

### **ARE 370. Design of Energy Efficient and Healthy Buildings.**

Design and analysis of sustainable buildings, envelopes and facades, and energy and resource use in energy efficient and healthy buildings. Applies building science principles used to avoid moisture problems, minimize sick-building syndrome symptoms, and reduce energy use. Three lecture hours a week for one semester. Prerequisite: Architectural Engineering 346N.

### **ARE 371. Energy Simulation in Building Design.**

Fundamentals of building energy simulations, analytical models for heat transfer in buildings, general numerical methods for solving equations from the analytical models, use of energy simulation tools in building design analysis, and parametric analyses used to study various operational parameters that affect energy use in buildings. Three lecture hours a week for one semester. Prerequisite: Architectural Engineering 346N.

### **ARE 372. Modeling of Air and Pollutant Flows in Buildings.**

Fundamentals of indoor airflow modeling; use of computational fluid dynamics (CFD) for air quality and thermal comfort analyses; application of CFD for analysis of air velocity, temperature, humidity, and contaminant distributions with different ventilation systems. Three lecture hours a week for one semester. Prerequisite: Architectural Engineering 346N and Civil Engineering 319F.

### **ARE 376. Building Information Modeling for Capital Projects.**

Focuses on the skills and information needed to effectively use an existing Building Information Model for a building construction project. In this project-based course, students gain knowledge on the implementation of BIM concepts throughout the life cycle of a building from planning and design to construction and operations. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Architectural Engineering 320L and 323K.

### **ARE 177K, 277K, 377K. Studies in Architectural Engineering.**

Various specified topics or conference course. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 7: Independent Study.** Restricted to architectural engineering majors. Independent research with a tenure track faculty member in the Department of Civil, Architectural, and Environmental Engineering. Prepare a project proposal and a final report, each of which is evaluated by the faculty supervisor. ARE 177K (Topic 7) and ARE 177K (Topic: Independent Study) may not both be counted. Additional prerequisite: Consent of instructor.

### **ARE 177R. Internship.**

The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only.

### **ARE 377S. Emerging Technology: Survey.**

Restricted to students in the Cockrell School of Engineering. Survey of building design technologies in engineering, architectural, and construction firms. Three lecture hours for one semester. Only one of the following may be counted: Architectural Engineering 377K (Topic: Emerging Technol: Tech Elec-GBR), 377K (Topic: Emerging Technol:Survey-GBR), 377S, or 377T. Offered on the letter-grade basis only. Prerequisite: Consent of Instructor.

### **ARE 377T. Emerging Technologies: Technical Elective.**

Restricted to students in the Cockrell School of Engineering. Technical design within engineering, architecture, and construction. Three lecture hours for one semester. Only one of the following may be counted: Architectural Engineering 377K (Topic: Emerging Technol: Tech Elec-GBR), 377K (Topic: Emerging Technol:Survey-GBR), 377S, or 377T. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Architectural Engineering 320K and 320L; and consent of instructor.

### **ARE 679H. Undergraduate Honors Thesis.**

Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA,

enrollment in the Engineering Honors Program; for 679HB, Architectural Engineering 679HA and enrollment in the Engineering Honors Program.

## **Graduate Courses**

### **ARE 381E. Design of Energy Efficient and Healthy Buildings.**

Design of buildings for low energy use and optimal indoor air quality. Includes ventilation, energy efficiency, moisture problems, and prevention by design. Three lecture hours a week for one semester. Prerequisite: Graduate standing in engineering or graduate standing and consent of instructor.

### **ARE 382. Independent Studies in Architectural Engineering.**

Investigation of problems in building construction, selected by the student with approval of the graduate adviser. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in architectural engineering and consent of the graduate adviser.

**Topic 1: Construction and Project Management.** Offered on the credit/no credit basis only.

**Topic 2: Structures.** Offered on the credit/no credit basis only.

**Topic 3: Materials and Methods.** Offered on the credit/no credit basis only.

**Topic 4: Environmental Engineering.** Offered on the credit/no credit basis only.

**Topic 5: Design Principles and Procedures.** Offered on the credit/no credit basis only.

### **ARE 383. Research Studies in Architectural Engineering.**

Three lecture hours a week for one semester, or the equivalent in conference hours, or as stated for the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Construction and Project Management.**

**Topic 2: Structures.**

**Topic 3: Materials and Methods.**

**Topic 4: Forensic Engineering: Materials and Structures.** Same as Civil Engineering 397F. Methods of forensic analysis; role of the expert witness; methods of dispute resolution; case studies; term project. Two lecture hours a week for one semester, with three laboratory hours a week for presentation of case studies.

**Topic 5: Advanced Masonry Engineering.** Properties of masonry, differential movement, construction operations, bearing wall systems, and case histories of failures.

### **ARE 389H. HVAC Design.**

Design of heating, ventilation, and air-conditioning systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing and three of the following courses: Architectural Engineering 346N, Civil Engineering 319F, Mechanical Engineering 320, 326, 330, 339.

### **ARE 389T. Indoor Air Quality: Transport and Control.**

Transport and control of indoor pollutants. Includes particulate removal and pollutant transport into and within indoor environments. Three lecture hours a week for one semester. Prerequisite: Graduate standing in architectural or civil engineering.

### **ARE 389U. Energy Simulation in Building Design.**

Restricted to architectural engineering or civil engineering graduate students. Fundamentals of building energy simulations including basic analytical models for heat transfer in building elements and general numerical methods for solving system of equations. Use of energy simulation tools for building design analyses including parametric studies. Three lecture hours a week for one semester. Only one of the

following may be counted: Architectural Engineering 383 (Topic: Energy Simulation in Building Design), 389U, Civil Engineering 397 (Topic: Energy Simulation in Building Design). Prerequisite: Graduate standing, and Mechanical Engineering 320 or three semester hours of equivalent upper-division coursework in thermodynamics.

#### **ARE 389V. Modeling of Air and Pollutant Flows in Buildings.**

Same as Civil Engineering 389V. Restricted to architectural engineering or civil engineering graduate students. Fundamentals of indoor airflow modeling, use of computational fluid dynamics (CFD) for air quality and thermal comfort analyses, application of CFD for analysis of air velocity, temperature, humidity, and contaminant distributions with different ventilation systems. Three lecture hours a week for one semester. Only one of the following may be counted: Architectural Engineering 383 (Topic: Modeling of Air and Pollutant Flows in Buildings), 389V, Civil Engineering 389V, 397 (Topic: Modeling of Air and Pollutant Flows in Buildings). Prerequisite: Graduate standing; for architectural engineering and civil engineering majors, three semester hours of coursework in fluid dynamics; for others, consent of instructor.

#### **ARE 395P. Project Automation.**

Three lecture hours a week for one semester. Some topics may require additional hours; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Advanced CAD Procedures.** Same as Civil Engineering 395P (Topic 1: Advanced CAD Procedures). Introduction to advanced CAD procedures and CAD systems, and their influence on building design and construction. Nine hours of lecture and laboratory a week for one semester. Additional prerequisite: An introductory CAD course.

**Topic 2: Introduction to Construction Automation and Integration.** Same as Civil Engineering 395P (Topic 2: Introduction to Construction Automation and Integration). Construction automation and integration activities, methods for opportunity identification and financial analysis of systems, and tools from several disciplines that are used in construction automation and integration; students prepare a project that synthesizes this information.

#### **ARE 395Q. Project Controls.**

Three lecture hours a week for one semester. Some topics require two lecture hours and three laboratory hours a week; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

#### **ARE 395R. Project Information Systems.**

Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 5: Data Mining.** Same as Civil Engineering 395R (Topic 5: Data Mining). Fundamentals of data mining. Techniques for data classification, prediction, clustering, and association rules mining. Data mining as an advanced data analysis method in engineering and construction. Implementation issues.

#### **ARE 395S. Project Organization.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 4: Project Management.** Same as Civil Engineering 395S (Topic 4: Project Management). Overall aspects of project and portfolio management from inception to successful operation: project selection and feasibility, contracting methods, project scheduling, cost control systems, project communications, project scope and quality

management, human resource management, partner selection and management, project leadership, project closeout, and global project management.

#### **ARE 395T. Project Technology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

#### **ARE 395U. General Topics in Construction Engineering and Project Management.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 3: Advanced Legal Concepts.** Same as Civil Engineering 395U (Topic 3: Advanced Legal Concepts). Contracts, documentation requirements, claims avoidance, and settlement of claims by alternative dispute resolution. Students conduct and present in-depth studies of the most frequent causes of claims (delay, disruption, acceleration, soil conditions, and changes) and consider the way the court establishes causation and determines damages.

#### **ARE 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in architectural engineering and consent of the graduate adviser; for 698B, Architectural Engineering 698A.

#### **ARE 398D. Departmental Report.**

Preparation of a report to fulfill the requirement for the Master of Science in Engineering degree under the departmental report option. Individual instruction. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in architectural engineering and consent of the supervising professor and the graduate adviser.

#### **ARE 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the Graduate School report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in architectural engineering and consent of the supervising professor and the graduate adviser.

### **Professional Courses**

## **Architectural Interior Design Courses**

### **Architectural Interior Design: ARI**

#### **Lower-Division Courses**

##### **ARI 310K. Design I.**

Same as Architecture 310K. Restricted to students in the School of Architecture. An introduction to the forms and methods of design for architects and interior designers, with an emphasis on inhabitation including body, light, and movement. Taught in a studio format by faculty members under the direction of a faculty coordinator. Three lecture hours and six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Registration for Architectural Interior Design 311K or Architecture 311K.

##### **ARI 310L. Design II.**

Same as Architecture 310L. Restricted to students in the School of Architecture. An introduction to the forms and methods of design for architects and interior designers, with an emphasis on environment,

including color, material, and texture. Taught in a studio format by faculty members under the direction of a faculty coordinator. Three lecture hours and six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Architecture 310K and 311K or Architectural Interior Design 310K and 311K with a grade of at least C in each, and registration for Architecture 311L or Architectural Interior Design 311L.

#### **ARI 311K. Visual Communication I.**

Same as Architecture 311K. Restricted to students in the School of Architecture. Study and application of drawing and other communication skills for designers, including formal and spatial studies, life drawing, and perspective. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Registration for Architectural Interior Design 310K or Architecture 310K.

#### **ARI 311L. Visual Communication II.**

Same as Architecture 311L. Restricted to students in the School of Architecture. Study and application of drawing and other communication skills for designers, including color, light and shadow, and projections. Employs manual and digital techniques. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Architecture 310K and 311K or Architectural Interior Design 310K and 311K with a grade of at least C in each, and registration for Architecture 310L or Architectural Interior Design 310L.

#### **ARI 318K. Interiors and Society.**

Concepts, principles, and elements of interior design, presented in artistic, philosophical, and professional contexts. Includes a basic historical overview of the development of interior design. Three lecture hours a week for one semester. Prerequisite: For students in the School of Architecture, none; for others, consent of instructor.

#### **ARI 318M. Interior Design History.**

Survey of interior design from antiquity through the eighteenth century, including theoretical, social, technical, and environmental forces. Three lecture hours a week for one semester. Prerequisite: Architectural Interior Design 318K with a grade of at least C.

### **Upper-Division Courses**

#### **ARI 320K. Design III--Interiors.**

Restricted to students in the School of Architecture. Focus on the physical and psychological needs of the inhabitants of interior space, with an emphasis on conceptual process and diagrammatic techniques. Projects deal with real building situations and introduce implications of fenestration, structure, and materials. Nine hours of lecture and studio a week for one semester. Prerequisite: The following coursework with a grade of at least C in each: Architectural Interior Design 310L and 311L, or Architecture 310L and 311L; and registration for Architectural Interior Design 221K or Architecture 221K.

#### **ARI 520L. Design IV--Interiors.**

Restricted to students in the School of Architecture. Explores linkages between multiple interior spaces and the study of spatial thresholds. Investigates individual spaces in relation to the body and the surrounding environment, utilizing a clearly defined program. Fifteen hours of lecture and studio a week for one semester. Prerequisite: Architectural Interior Design 320K, Architecture 415K, and Architectural Interior Design 221K or Architecture 221K, with a grade of at least C in each.

#### **ARI 221K. Visual Communication III.**

Same as Architecture 221K. Restricted to students in the School of Architecture. Introduction to digital modeling as well as principles of digital fabrication. Includes various modes of output such as

drawings, renderings, and physical models. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C in each: Architectural Interior Design 310L and 311L, or Architecture 310L and 311L; and registration for Architectural Interior Design 320K or Architecture 320D (or 320K).

#### **ARI 324K. Environmental Controls I.**

Same as Architecture 334K. Restricted to students in the School of Architecture. A survey of acoustics, color, light, illumination, and electrical and information systems in architectural interiors. Includes techniques of documentation. Three lecture hours and three laboratory hours a week for one semester. Architectural Interior Design 324K and Architecture 334K may not both be counted. Prerequisite: Architectural Interior Design 520L or Architecture 521E (or 520E) or 521G (or 520G) with a grade of at least C.

#### **ARI 327P. Productions.**

Same as Architecture 327P. Designed to explore the relationships between the generation of form, space, experience, and atmosphere in the spatial practices of interior design, architecture, and art. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 327P, 350R (Topic: Productions), Architectural Interior Design 327P. Prerequisite: For students in the School of Architecture, upper-division standing; for others, upper-division standing and consent of instructor.

#### **ARI 328P. Prototype.**

Same as Architecture 328P. Focus on digital fabrication as a link between architecture and product design. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Architecture 328P, 351R (Topic: Prototype), Architectural Interior Design 328P. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and Architecture 520L with a grade of at least C, or consent of instructor.

#### **ARI 130. Interior Design Internship.**

Restricted to students in the School of Architecture. Practical application of design procedures in a professional design office. At least 250 hours of work in one semester. Prerequisite: Architectural Interior Design 530T.

#### **ARI 530K. Design V--Interiors.**

Restricted to students in the School of Architecture. Examination of the elements of interior space and scale, including specific human factors. Particular emphasis on the design, documentation, production, and placement of objects in interiors. Fifteen hours of lecture and studio a week for one semester. Prerequisite: Architectural Interior Design 520L and 434K with a grade of at least C in each.

#### **ARI 530T. Design VI--Interiors.**

Restricted to students in the School of Architecture. Capstone studio with specific design projects from current markets. Application of code issues, regulatory restraints, fire safety, and regulations for accessibility in interiors. Fifteen hours of lecture and studio a week for one semester. Prerequisite: Architectural Interior Design 324K and 530K with a grade of at least C in each.

#### **ARI 434K. Construction II--Interior Materials and Assemblies.**

Restricted to students in the School of Architecture. Core concepts in interior materials, assemblies, and systems. Includes material properties, environmental and sustainable issues, attachment, detailing, and product specifications. Projects encourage manipulation and assembly of various material systems. Case studies using material samples, and field trips to sites of fabrication. Six hours of lecture and laboratory a week for one semester. Prerequisite: Architecture 415K with a grade of at least C.

### **ARI 338. Designing for Human Behavior.**

Issues of mood, privacy, perception, proxemics, and preferences applied to the design of interiors. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **ARI 350R. Topics in Interior Design Theory.**

Seminar in a variety of topics. Designed to broaden the student's knowledge of interior design and to encourage critical and theoretical thinking in the discipline. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For students in the School of Architecture, upper-division standing; for others, upper-division standing and consent of instructor.

### **ARI 560R. Advanced Interior Design.**

Restricted to students in the School of Architecture. Synthesis of components covered in other interior design courses, such as human aspects, place-making, the interior envelope, transitional spaces, and conceptual processes. Fifteen hours of lecture and studio a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Architectural Interior Design 530T with a grade of at least C and satisfactory completion of a third-year portfolio review.

### **ARI 362. Interior Design Practice.**

Restricted to students in the School of Architecture. Business procedures, professional practice, design project control and management, and professional ethics. Documents procedures for interior design. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

### **ARI 368R. Interior Design History II.**

Study of function and aesthetics, and decoration and use, emphasizing interiors from the nineteenth century to the present. Three lecture hours a week for one semester. Prerequisite: Architectural Interior Design 318M with a grade of at least C.

### **ARI 368S. Topics in the History of Architecture and Architectural Interior Design.**

Seminars and lecture/seminars on advanced topics in the history of architectural interior design. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; and for students in the School of Architecture, Architecture 318L with a grade of at least C; for others, consent of instructor.

### **ARI 279, 379. Interior Design Research.**

Investigation of problems selected by the student with approval of the supervising instructor. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Upper-division standing and consent of instructor and the dean.

## **Graduate Courses**

### **ARI 281. Visual Communications.**

Introduction to using digital tools for communicating design, with an emphasis on integrating digital image, CAD, and 3-D software processes with hand drawing and modeling techniques. Subjects may include the manipulation of digital images, the combination of text and image, rendered perspectives, measured drawings, an introduction to 3-D modeling, and the use of advanced visual language. Some projects are based on work done in the student's design studios. Six hours of lecture and studio a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARI 381D. Architectural Drawing.**

Visual communication in such media as freehand drawing, modeling, photography, and measured drawings. Five laboratory hours a week for one semester. Architecture Interior Design 381D and 381R (Topic: Architectural Drawing) may not both be counted. Prerequisite: Graduate standing and consent of graduate adviser.

### **ARI 381R. Topics in Representation.**

Topics in the fundamental components of interior design and visual communication. Five or six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 1: Advanced Drawing.** Focus on personal design methodology by exploring multiple drawing methods, skills, and approaches including manual, digital, and hybrid techniques. Refines design communication skills by pairing clearly articulated design intention with compelling drawings, and expressing them via effective verbal presentations. Five or six laboratory hours a week for one semester.

### **ARI 381T. Topics in Emerging Technologies.**

Examines tools, techniques, and methods used in simulating, constructing, and experiencing interior space. Studies how various emerging technologies affect interior design, from initial design to fabrication to completion. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARI 382. Interior Design Practice.**

Business procedures, professional practice, design project control and management, and professional ethics as they relate to interior design. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARI 384F. Environmental Control: Heat, Air and Water.**

Examine thermal comfort, heating, cooling, ventilation, plumbing systems, fire protection, and conveying equipment in buildings. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Architecture 384F, 384L, Architectural Interior Design 384F, and 384K. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARI 384G. Environmental Control: Light, Sound and Electricity.**

Survey light and color fundamentals, daylighting, artificial illumination, acoustics, and electrical and information systems for buildings. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Architecture 384K, 384G, Architectural Interior Design 384L, 384G. Prerequisite: Graduate standing and consent of the graduate advisor.

### **ARI 385K. Construction I.**

Restricted to students in the Master of Interior Design, first professional program. Introduction to building construction, materials, and structures. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of graduate adviser.

### **ARI 385L. Construction II: Interior Materials and Assemblies.**

Restricted to students in the Master of Interior Design, first professional program. Core concepts in interior materials, assemblies, and systems. Includes material properties, environmental and sustainable issues, attachment, detailing, and product specifications. Projects encourage manipulation and assembly of various material systems. Also includes case studies using material samples, and field trips to sites of fabrication. Six lecture hours and three laboratory hours a week for one

semester. Prerequisite: Graduate standing, Architectural Interior Design 385K with a grade of at least C, and consent of graduate adviser.

#### **ARI 385T. Topics in Materials and Tectonics.**

Investigates traditional interior design materials and materials emerging from new technologies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARI 386K. Seminar in Interior Design.**

Introductory subjects in interior design. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARI 386M. Topics in Interior Design Theory and Criticism.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARI 388. Designing for Human Behavior.**

Restricted to students in the Master of Interior Design, first professional program. Three lecture hours a week for one semester. Architectural Interior Design 386M (Topic: Designing for Human Behavior) and 388 may not both be counted. Prerequisite: Graduate standing.

#### **ARI 388K. Interior Design History I.**

Survey of interior design from antiquity through the eighteenth century, including theoretical, social, technical, and environmental issues. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARI 388L. Interior Design History II.**

Study of function and aesthetics, and decoration and use, emphasizing interiors from the nineteenth century to the present. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Architectural Interior Design 388K with a grade of at least C.

#### **ARI 388R. Topics in Interior Design History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser. Additional prerequisites may vary with the topic.

#### **ARI 389, 689. Research in Interior Design.**

Investigation of problems selected by the student and approved by the graduate adviser. Three or six lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARI 391P. Productions.**

Same as Architecture 391P. Designed to explore the relationships between the generation of form, space, experience, and atmosphere in the spatial practices of interior design, architecture, and art. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 386M (Topic: Productions), 391P, Architectural Interior Design 386M (Topic: Productions), 391P. Prerequisite: For students in the School of Architecture, graduate standing; for others, graduate standing and consent of instructor.

#### **ARI 392F. Digital Drawing and Fabrication.**

Focus on advanced visual communication methodologies necessary for architectural generation, translation, and output. Six laboratory hours a week for one semester. Architectural Interior Design 381R (Topic: Digital Drawing and Fabrication) and 392F may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARI 392P. Prototype.**

Same as Architecture 392P. Focus on digital fabrication as a link between architecture and product design. Five laboratory hours a week for one semester. Only one of the following may be counted: Architecture 381R (Topic: Prototype), 392P, Architectural Interior Design 381R (Topic: Prototype), 392P. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARI 693. Master's Design Studio.**

Restricted to students in the Master of Interior Design, first professional program. Advanced study in architectural interior design, addressing complex design problems and issues related to various architectural topics. The equivalent of eighteen laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARI 693K. Interior Design Core Studio I.**

Explores interior spaces and their sequence and adjacencies. Studies individual rooms, their locations, and their uses in such fields as hospitality, health care, and entertainment. Special emphasis on the design of transitions from public spaces to personal spaces. Fifteen hours of lecture and studio a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARI 693L. Interior Design Core Studio II.**

Examination of the elements of interior space and scale, including specific human factors. Particular emphasis on the design, documentation, production, and placement of objects in interiors. Fifteen hours of lecture and studio a week for one semester. Prerequisite: Graduate standing, Architectural Interior Design 693K with a grade of at least C, and consent of the graduate adviser.

#### **ARI 693M. Interior Design Core Studio III.**

Examination of interior spaces and elements. Fifteen hours of lecture and studio a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, Architectural Interior Design 693L with a grade of at least C, and consent of the graduate adviser.

#### **ARI 694. Advanced Design: International Studio.**

Advanced problems in international interior design. Students help design new residential or commercial buildings, incorporating local architectural style. Includes research of local historical texts. Taught abroad in locations that vary by semester, but may include Italy and Mexico. Fifteen studio hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, Architectural Interior Design 693K and 693L, and consent of the graduate adviser.

#### **ARI 695. Interior Design: Technical Studio.**

Comprehensive studio that focuses on combining the elements that create a thorough interior design. Fifteen studio hours a week for one semester. Prerequisite: Graduate standing, Architectural Interior Design 693K and 693L, and consent of the graduate adviser.

#### **ARI 395D. Frank Lloyd Wright: Design, Method, Theory.**

Same as Architecture 395D and Landscape Architecture 395D. Comprehensive study of Frank Lloyd Wright's life and work with emphasis on the analyses of his concepts of organic architecture, design methods, and theories. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 388R (Topic: Frank Lloyd Wright: Design, Method, Theory), 395D, Architectural Interior Design 388R (Topic: Frank Lloyd Wright: Design, Method, Theory), 395D, Landscape Architecture 388 (Topic: Frank Lloyd Wright), 395D. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **ARI 395G. The American Home: Identity, Process, and Marketing.**

Same as Architecture 395G and Landscape Architecture 395G. An examination of how American housing is conceived, developed, and marketed, as well as relationships between home buyers and builders. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 388R (Topic: American Home), 395G, Architectural Interior Design 388R (Topic: American Home), 395G, Landscape Architecture 388 (Topic: American Home), 395G. Offered on the letter-grade basis only. Prerequisite: For students in the School of Architecture, graduate standing; for others, graduate standing and consent of instructor.

### **ARI 696. Advanced Interior Design Studio.**

Studies advanced problems in interior design and examines design strategies and different phases of design. Topics may focus on interior design as it relates to retail, education, sustainability, and health care. Fifteen studio hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, Architectural Interior Design 693K and 693L, and consent of the graduate adviser.

### **ARI 197. Interior Design Internship.**

Practical application of design procedures in a professional design office. Sixteen to twenty hours of work a week for one semester (a total of at least 250 hours). Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARI 698. Thesis.**

For students seeking the Master of Interior Design degree. The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in interior design and consent of the graduate adviser; for 698B, Interior Design 698A.

## **Professional Courses**

# **Architecture Courses**

## **Architecture: ARC**

### **Lower-Division Courses**

#### **ARC 001F. First-Year Interest Group Seminar.**

Restricted to students in the First-Year Interest Group Program. Basic issues in various School of Architecture disciplines. One lecture hour a week for one semester.

#### **ARC 308 (TCCN: ARCH 1311). Architecture and Society.**

Introduction to the social contexts, potential, and consequences of architecture and interior design. Three lecture hours and one laboratory hour a week for one semester.

#### **ARC 310K. Design I.**

Same as Architectural Interior Design 310K. Restricted to students in the School of Architecture. An introduction to the forms and methods of design for architects and interior designers, with an emphasis on inhabitation including body, light, and movement. Taught in a studio format by faculty members under the direction of a faculty coordinator. Three lecture hours and six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Registration for Architectural Interior Design 311K or Architecture 311K.

#### **ARC 310L. Design II.**

Same as Architectural Interior Design 310L. Restricted to students in the School of Architecture. An introduction to the forms and methods of design for architects and interior designers, with an emphasis on

environment, including color, material, and texture. Taught in a studio format by faculty members under the direction of a faculty coordinator. Three lecture hours and six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Architecture 310K and 311K or Architectural Interior Design 310K and 311K with a grade of at least C in each, and registration for Architecture 311L or Architectural Interior Design 311L.

#### **ARC 311K. Visual Communication I.**

Same as Architectural Interior Design 311K. Restricted to students in the School of Architecture. Study and application of drawing and other communication skills for designers, including formal and spatial studies, life drawing, and perspective. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Registration for Architectural Interior Design 310K or Architecture 310K.

#### **ARC 311L. Visual Communication II.**

Same as Architectural Interior Design 311L. Restricted to students in the School of Architecture. Study and application of drawing and other communication skills for designers, including color, light and shadow, and projections. Employs manual and digital techniques. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Architecture 310K and 311K or Architectural Interior Design 310K and 311K with a grade of at least C in each, and registration for Architecture 310L or Architectural Interior Design 310L.

#### **ARC 312C. Appropriate Materials.**

Examine the underlying material framework of the built environment through the study of buildings, products, and artworks that span time and place. Emphasis is placed on works of architecture. Three lecture hours a week for one semester. Architecture 312C and 327R (Topic: Appropriate Materials-WB) may not both be counted.

#### **ARC 312R. Topics in Introductory Design Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **ARC 415K. Construction I.**

Restricted to students in the School of Architecture. Introduction to building construction, materials, and structures. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C in each: Architectural Interior Design 310L and 311L, or Architecture 310L and 311L; and registration for Architectural Interior Design 320K or Architecture 321D (or 320D).

#### **ARC 415L. Construction II.**

Restricted to students in the School of Architecture. Analysis of building assemblies, envelope design, and structures. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Architecture 415K with a grade of at least C; Mathematics 408C or 408K; and Physics 302K and 102M, or 303K and 103M.

#### **ARC 318K (TCCN: ARCH 1301). World Architecture: Origins to 1750.**

Comparative study of the architecture of the ancient world, including Asia, Africa, the Americas, and Europe. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: For students in the School of Architecture, Architecture 308 with a grade of at least C.

#### **ARC 318L (TCCN: ARCH 1302). World Architecture: The Industrial Revolution to the Present.**

Three lecture hours a week for one semester. Prerequisite: For students in the School of Architecture, Architecture 318K with a grade of at

least C; for others, twelve semester hours of college coursework is recommended.

### **ARC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Architecture.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the academic advising coordinator in the School of Architecture. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May not be counted toward a degree in the School of Architecture. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **ARC 521G. Design VI Intermediate.**

Restricted to students in the School of Architecture. Intermediate-level studio emphasizing theory, *raison-d'être*, program, and overlaps with other disciplines. Fifteen studio hours a week for one semester. Only one of the following may be counted: Architecture 520G, 521G, 530T. Prerequisite: Architecture 521F, 334K, and 435K, with a grade of at least C in each; and consent of the department.

### **ARC 221K. Visual Communication III.**

Same as Architectural Interior Design 221K. Restricted to students in the School of Architecture. Introduction to digital modeling as well as principles of digital fabrication. Includes various modes of output such as drawings, renderings, and physical models. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C in each: Architectural Interior Design 310L and 311L, or Architecture 310L and 311L; and registration for Architectural Interior Design 320K or Architecture 320D (or 320K).

### **ARC 323D. Design III Intermediate Studio.**

Restricted to students in the School of Architecture. Explore tectonic expression through structural systems, construction methods and materiality, and spatial and formal composition at the scale of a building. Nine studio hours a week for one semester. Architecture 321D and 323D and may not both be counted. Prerequisite: Architecture 310L and 311L with a grade of at least C.

### **ARC 523E. Design IV Intermediate Studio.**

Restricted to students in the School of Architecture. Examine the relationship of city and nature, urban issues, housing, landscape, and spatial and formal composition at the scale of the city in a studio setting. Twelve studio hours a week for one semester. Prerequisite: Architecture 323D (or 321D), Architecture 221K, and Architecture 415K with a grade of at least a C.

### **ARC 523F. Design V Intermediate Studio.**

Restricted to students in the School of Architecture. Examine theory, *raison-d'être*, program, spatial and formal composition, and overlaps with other disciplines in a studio setting. Twelve studio hours a week for one semester. Prerequisite: Architecture 523E (or 521E), Architecture 415L, and Architecture 333 with a grade of at least a C.

### **ARC 326R. Topics in Design and Practice.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### **ARC 327C. Urban Design History, Theory, and Criticism.**

Study of critical theories and practices that affect the built environment. Three lecture hours a week for one semester. Architecture 327C and 350R (Topic: Urban Design History/Theory/Criticism) may not both be

counted. Prerequisite: For students in the School of Architecture, upper-division standing; for others, upper-division standing and consent of instructor.

### **ARC 327E. Alternative Real Estate Action.**

Intersects theory and practice by performing design-build, community service/community engagement as a form of alternative real estate development. Three lecture hours a week for one semester. Architecture 327E and 350R (Topic: Alternative Real Estate Action) may not both be counted. Prerequisite: Upper-division standing.

### **ARC 327F. American Dream: Status Quo and Alternatives.**

Three lecture hours a week for one semester. Architecture 327F and Urban Studies 352 (Topic 2) may not both be counted.

### **ARC 327G. Regenerative Architecture.**

Three lecture hours a week for one semester. Architecture 327G and 350R (Topic: Regenerative Architecture) may not both be counted. Prerequisite: Upper-division standing.

### **ARC 327J. Theory of Architecture I.**

Three lecture hours a week for one semester. Architecture 327J and 350R (Topic: Theory of Architecture I) may not both be counted. Prerequisite: Upper-division standing.

### **ARC 327P. Productions.**

Same as Architectural Interior Design 327P. Designed to explore the relationships between the generation of form, space, experience, and atmosphere in the spatial practices of interior design, architecture, and art. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 327P, 350R (Topic: Productions), Architectural Interior Design 327P. Prerequisite: For students in the School of Architecture, upper-division standing; for others, upper-division standing and consent of instructor.

### **ARC 327R. Topics in Architectural Theory.**

Advanced topics in architecture and associated disciplines to encourage critical and theoretical thinking. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Architectural Criticism.** Architecture 327R (Topic 1) and 350R (Topic: Architectural Criticism) may not both be counted.

**Topic 2: Architectural Photography.** Architecture 327R (Topic 2) and 350R (Topic: Architectural Photography) may not both be counted.

**Topic 3: City as Form and Idea.** Architecture 327R (Topic 3) and 350R (Topic: City as Form and Idea) may not both be counted.

**Topic 4: Community Design Engagement.** Architecture 327R (Topic 4) and 350R (Topic: Community Design Engagement) may not both be counted.

**Topic 5: Design Firm Leadership.** Architecture 327R (Topic 5) and 350R (Topic: Design Firm Leadership) may not both be counted.

**Topic 6: Design of New Communities.** Architecture 327R (Topic 6) and 350R (Topic: Design of New Communities) may not both be counted.

**Topic 7: Design Process.** Architecture 327R (Topic 7) and 350R (Topic: Design Process) may not both be counted.

**Topic 8: Designing the Way We Build.** Architecture 327R (Topic 8) and 350R (Topic: Designing the Way We Build) may not both be counted.

**Topic 9: Eileen Gray and E. 1027.** Architecture 327 (Topic 9) and 350R (Topic: Eileen Gray and E.1027) may not both be counted.

**Topic 10: Energy Modeling and The Design Process.** Architecture 327R (Topic 10) and 350R (Topic: Energy Modeling & Design Proc) may not both be counted.

**Topic 11: Global Housing Challenge.** Architecture 327R (Topic 11) and 350R (Topic: Global Housing Challenge) may not both be counted.

**Topic 12: Light and Sustainable Design.** Architecture 327R (Topic 12) and 350R (Topic: Light and Sustainable Design) may not both be counted.

**Topic 13: Managing the Design Project.** Architecture 327 (Topic 13) and 350R (Topic: Managing the Design Project) may not both be counted.

**Topic 14: Place and Historical Imagination.** Architecture 327R (Topic 14) and 350R (Topic: Place & Historical Imagination) may not both be counted.

**Topic 15: Poetics of Building.** Architecture 327R (Topic 15) and 350R (Topic: Poetics of Building) may not both be counted.

**Topic 16: Smart, Green, and Just.** Architecture 327R (Topic 16) and 350R (Topic: Smart, Green, and Just) may not both be counted.

**Topic 17: Solar Geometry/Energy Flow in Building.** Architecture 327R (Topic 17) and 350R (Topic: Solar Geom/Energy Flow in Bldg) may not both be counted.

**Topic 18: Timber Technologies.** Architecture 327R (Topic 18) and 350R (Topic: Timber Technologies) may not both be counted.

**Topic 19: Urban Land Institute Workshop.** Architecture 327R (Topic 19) and 350R (Topic: Urban Land Institute Workshop) may not both be counted.

**Topic 20: Introduction to Urban Ecology.**

**Topic 21: Urban Agricultural Systems.**

**Topic 23: Computational Design.** Explore the theory and application of computational design. Use of software programs to develop experimental projects that uncover new tactics for the design of buildings and objects. Projects will be evaluated on their spatial and experiential potential and attention to digital craft. Architecture 327R (Topic: Computational Design) and 327R (Topic 23) may not both be counted.

**Topic 24: Race and Gender by Design.** Examine the relationship of design relative to the narratives of race, gender, and diversity. Architecture 327R (Topic: Race and Gender by Design) and 327R (Topic 24) may not both be counted.

### **ARC 327U. Technology/Technique Sustainable Design.**

Three lecture hours a week per semester. Architecture 327U and 350R (Topic: Technol/Techniq Sustn Dsgn-Ger) may not both be counted. Prerequisite: Upper-division standing.

### **ARC 328D. Advanced Drawing.**

Focus on personal design methodology by exploring multiple drawing methods, skills and approaches including manual, digital, and hybrid techniques. Refines design communication skills by pairing clearly articulated design intention with compelling drawings, and expressing them via effective verbal presentations. Three lecture hours or six laboratory hours a week for one semester. Architecture 328D and 351R (Topic: Advanced Drawing: Draw Blood) may not both be counted. Prerequisite: Upper-division standing and Architecture 520L with a grade of at least C, or consent of instructor.

### **ARC 328F. Digital Drawing and Fabrication.**

Focus on advanced visual communication methodologies necessary for architectural generation, translation, and output. The equivalent of three lecture hours a week for one semester. Architecture 328F and 351R (Topic: Digital Drawing and Fabrication) may not both be counted. Prerequisite: Architecture 520L with a grade of at least C, or consent of instructor.

### **ARC 328G. Design Logics: Projection and Proportion in Architecture.**

Three lecture hours a week for one semester. Architecture 328G and 351R (Topic: Dsgn Logics: Proj/Prop Arch) may not both be counted. Prerequisite: Upper-division standing.

### **ARC 328P. Prototype.**

Same as Architectural Interior Design 328P. Focus on digital fabrication as a link between architecture and product design. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Architecture 328P, 351R (Topic: Prototype), Architectural Interior Design 328P. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and Architecture 520L with a grade of at least C, or consent of instructor.

### **ARC 328Q. Rendering and Animation for the Built Environment.**

Same as Landscape Architecture 341R (Topic 1). Digital visualization techniques used to model three dimensional environments and motion with digital media. Includes lectures, software demonstrations, and projects that focus on the digital translation of spatial experience, as well as the visualization techniques associated with rendering texture, character, and environment. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 328Q, 328V, 351R (Topic: Visualization and Digital Representation in Design), Landscape Architecture 341R (Topic 1). Prerequisite: For students in the School of Architecture: upper-division standing and Architecture 521E with a grade of at least C, or consent of instructor; for others, upper-division standing or consent of instructor.

### **ARC 328R. Topics in Visualization and Fabrication.**

Advanced topics in various methods of visual communication. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Architecture 520E or 520G with a grade of at least C, or consent of instructor.

### **ARC 328S, 428S. Global Visual Communication.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing.

### **ARC 328W. Wood Design.**

Practice on basic woodworking skills: tool sharpening, layout, millwork, joinery, gluing, sanding, and finishing. The equivalent of three lecture hours a week for one semester. Architecture 328W and 351R (Topic 11) may not both be counted. Prerequisite: Upper-division standing and Architecture 520L with a grade of at least C, or consent of instructor.

### **ARC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Architecture.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the academic advising coordinator in the School of Architecture. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May not be counted toward a degree in the School of Architecture. May be repeated for credit when the topics vary.

### **ARC 333. Site Design.**

Restricted to students in the School of Architecture. History, theory, and technique of landscape design, with emphasis on the relationship of a building to its landscape. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **ARC 334K. Environmental Controls I.**

Same as Architectural Interior Design 324K. Restricted to students in the School of Architecture. A survey of acoustics, color, light, illumination, and electrical and information systems in architectural interiors. Includes techniques of documentation. Three lecture hours and three laboratory hours a week for one semester. Architectural Interior Design 324K and

Architecture 334K may not both be counted. Prerequisite: Architectural Interior Design 520L or Architecture 521E (or 520E) or 521G (or 520G) with a grade of at least C.

### **ARC 334L. Environmental Controls II.**

Restricted to students in the School of Architecture. A survey of heating, ventilating, air conditioning, vertical transportation, and wiring and plumbing systems in buildings, including techniques of documentation. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Architecture 334K or Architectural Interior Design 324K with a grade of at least C.

### **ARC 435R. Structures I.**

Restricted to students in the School of Architecture. Examine theories of building construction and materials. Explore the analysis and design of structural components. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Architecture 415L with a grade of at least C; Mathematics 408C or 408L; and Physics 302L and 102N, or 303L and 103N.

### **ARC 435S. Structures II.**

Restricted to students in the School of Architecture. Continue to examine theories of building behavior and materials. Explore the analysis and design of structural systems. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Upper-division standing and Architecture 435R with a grade of at least C.

### **ARC 335T. Architectural Details and Materials.**

Analyze building envelope, assemblies, detailing, and specifications. Three lecture hours a week for one semester. Architecture 335M and 335T may not both be counted. Prerequisite: Architecture 435S with a grade of at least a C.

### **ARC 342C. Mexican Architecture and Urbanism: From Pre-Columbian to Contemporary.**

A survey of Mexican architecture and urbanism from its origins in pre-Columbian times to the twenty-first century. Evaluation of architecture as a cultural production intricately connected to its artistic and historical context and the landscape that supports it. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 342C, 368R (Topic: Mexican Architectural History), 368R (Topic: Mexican Architecture-UT/Mex). Prerequisite: For students in the School of Architecture, Architecture 318L with a grade of at least C; for students in art history, Latin American studies, Mexican American studies, and urban studies, upper-division standing; for all others, consent of instructor.

### **ARC 342E. History and Theories of Landscape Architecture I.**

Same as Landscape Architecture 342K. Overview and chronological series of in-depth studies in the history of major garden cultures and designed landscapes of the Western and Eastern worlds. Introduction to methodological approaches to the formal, social, and cultural history of gardens and landscapes, as well as to relevant theoretical frameworks for interpreting these designed landscapes and for use in conceptualizing landscapes, architecture, and urban projects in studio design. Three lecture hours a week for one semester. Only one of the following may be counted: Landscape Architecture 342K, Architecture 342E, 368R (Topic: History and Theories of Landscape Architecture I) Prerequisite: Upper-division standing; for students in the School of Architecture, Architecture 318L with a grade of at least C; for others, consent of instructor.

### **ARC 342F. History and Theories of Landscape Architecture II.**

Same as Landscape Architecture 342L. Continuation of Landscape Architecture 342K (and Architecture 342D) through the modern period

to contemporary times. Formal and cultural history of gardens, parks, and public landscapes from 1700 to about 1990. Includes comparative material from the contemporary period, 1980 to 2010. Three lecture hours a week for one semester. Only one of the following may be counted: Landscape Architecture 342L; Architecture 342F or 368R (Topic: History and Theories of Landscape Architecture II). Prerequisite: Upper-division standing; for students in the School of Architecture, Architecture 318L with a grade of at least C; for others, consent of instructor.

### **ARC 342K. Representing Landscape and Architecture, 1500-2015.**

Same as Landscape Architecture 342R (Topic 3). Explores the roles of visual representation in design and professional practice from Leonardo da Vinci to the digital age. An overview of the history of techniques, media, and conventions of representation in architecture and landscape architecture and in their intersections. Includes some drawing and painting. Three lecture hours a week for one semester. Only one of the following may be counted: Landscape Architecture 342R (Topic 3); Architecture 342K, 368R (Topic: Representing Landscape and Architecture, 1500-2015). Offered on the letter-grade basis only. Prerequisite: Upper-division standing; for students in the School of Architecture, Architecture 318L with a grade of at least C; for others, consent of instructor.

### **ARC 342R. Topics in the History of Architecture.**

Seminars and lecture/seminars on advanced topics in the history of architecture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For students in the School of Architecture, Architecture 318L with a grade of at least C and upper-division standing; for others, upper-division standing.

**Topic 1: Twentieth-Century Latin American Architecture.** Architecture 342R (Topic 1) and 368R (Topic: 20th-Cen Latin American Arch) may not both be counted.

**Topic 2: American Architecture.** Architecture 342R (Topic 2) and 368R (Topic: American Architecture) may not both be counted.

**Topic 3: Brazilian Urban.** Architecture 342R (Topic 3) and 368R (Topic: Brazilian Urban Theory) may not both be counted.

**Topic 4: Central European Architecture, 1648-Present.** Architecture 342R (Topic 4) and 368R (Topic: Central European Architecture 1648-Present) may not both be counted.

**Topic 5: German Modernism.** Architecture 342R (Topic 5) and 368R (Topic: German Modernism) may not both be counted.

**Topic 6: History of Architecture Since 1985.** Architecture 342R (Topic 6) and 368R (Topic: History of Architecture since 1985) may not both be counted.

**Topic 7: History of Building Technology.** Architecture 342R (Topic 7) and 368R (Topic: History of Building Technology) may not both be counted.

**Topic 8: Hybridity in Landscape/Architecture.** Architecture 342R (Topic 8) and 368R (Topic: Hybridity in Landscape Architecture) may not both be counted.

**Topic 9: Loos and Mies.** Architecture 342R (Topic 9) and 368R (Topic: Loos and Mies) may not both be counted.

**Topic 10: Modern American Design.** Architecture 342R (Topic 10) and 368R (Topic: Modern American Design) may not both be counted.

**Topic 11: Modern Landscape Architecture 1900-1970.** Architecture 342R (Topic 11) and 368R (Topic: Modern Landscape Architecture 1900-1970) may not both be counted.

**Topic 12: Rome's Gardens and Landscapes.** Same as Landscape Architecture 342R (Topic 1). Only one of the following may be counted: Landscape Architecture 342R (Topic 1); Architecture 342R (Topic 12), 368R (Topic: Italian Villa and Garden)

**Topic 13: History of Architectural Theory.** Architecture 342R (Topic 13) and 368R (Topic: History of Architectural Theory) may not both be counted.

**Topic 14: Professional Design Practice: Baroque Rome.** Same as Landscape Architecture 342R (Topic 2). Explore an overview of the synthetic act of design and a strong interdisciplinary grounding in one of the key historical periods of design and in advanced research methods. Only one of the following may be counted: Landscape Architecture 342R (Topic 2), Architecture 342R (Topic 14) or Architecture 368R (Topic: Prof Dsgn Prac: Baroq Rome).

### **ARC 342S. Modern European Architecture.**

Three lecture hours a week for one semester Architecture 342S and 368R (Topic: Modern European Arch-Europe) may not both be counted. Prerequisite: Upper-division standing.

### **ARC 342T. Advanced Architecture History.**

Three lecture hours a week for one semester. Architecture 342T and ARC 368R (Topic: Advanced Architecture History-ITA) may not both be counted. Prerequisite: Upper-division standing.

### **ARC 342U. Modern History of Sustainable Architecture.**

Three lecture hours a week for one semester Architecture 342U and 368R (Topic: Mod Hist of Sustainable Arch-Ger) may not both be counted. Prerequisite: Upper-division standing.

### **ARC 350R. Topics in Design Theory.**

Advanced topics in architecture and associated disciplines to encourage critical and theoretical thinking. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For students in the School of Architecture, upper-division standing; for others, upper-division standing and consent of instructor; additional prerequisites may vary with the topic.

**Topic 1: The Modern American City.** Same as Geography 337 and Urban Studies 337. Issues facing residents of United States cities, such as transportation and housing, poverty and crime, metropolitan finance, environmental and architectural design; historical/comparative urban evolution. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 350R (Topic 1), Geography 337, Urban Studies 337, 352 (Topic 1). Additional prerequisite: For students in the School of Architecture, upper-division standing; for others, upper-division standing and consent of instructor.

**Topic 3: Urban Design Practice.** Architecture 350R (Topic 3) and Urban Studies 352 (Topic 3) may not both be counted.

**Topic 4: Economy/Value/Quality of Life.** Architecture 350R (Topic 4) and Urban Studies 352 (Topic 4) may not both be counted.

### **ARC 351R. Visual Communication.**

Advanced topics in various methods of visual communication. Three lecture hours or six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Architecture 520L with a grade of at least C, or consent of instructor.

**Topic 1: Computer Applications in Design.** Six studio hours a week for one semester.

**Topic 2: Introduction to Computer Applications.** Six studio hours a week for one semester.

**Topic 4: Composition, Presentation, and Portfolio.** Three lecture hours a week for one semester.

**Topic 5: Descriptive Geometry.** Three lecture hours a week for one semester.

**Topic 6: Drawing Clinic.** Three lecture hours a week for one semester.

**Topic 7: Introduction to Computer Imaging.** Three lecture hours a week for one semester.

**Topic 8: Seeing Things: General Drawing.** Three lecture hours a week for one semester.

**Topic 9: Solid Geometry Drawing.** Three lecture hours a week for one semester.

**Topic 10: Visual Communication Exercises.** Three lecture hours a week for one semester.

### **ARC 561C. Comprehensive Studio.**

Restricted to students in the School of Architecture. Comprehensive studio to develop the ability to combine the elements of a thorough building design. Twelve studio hours a week for one semester. Only one of the following may be counted: Architecture 560T, 660T, or 561C. Prerequisite: Architecture 523F (or 521E or 520E) with a grade of at least C; and satisfactory completion of Portfolio Review.

### **ARC 561R, 661R. Advanced Design.**

Restricted to students in the School of Architecture. Advanced problems in architectural design. For Architecture 561R, fifteen studio hours a week for one semester; for 661R, eighteen studio hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Architecture 521E (or 520E) with a grade of at least C; Architecture 521G (or 520G) with a grade of at least C; and satisfactory completion of third-year portfolio review.

### **ARC 361S. Internship.**

Restricted to students participating in the School of Architecture Professional Residency Program. Three lecture hours a week for one semester. Architecture 327R (Topic: PROF RESIDENCY INTERN-PRP) and 361S may not both be counted. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division Standing.

### **ARC 361T. Technical Communication.**

Restricted to students in the School of Architecture. Produce construction documents. Six studio hours a week for one semester. Prerequisite: Architecture 521E (or 520E) with a grade of at least C; Architecture 521G (or 520G) with a grade of at least C; and satisfactory completion of third-year portfolio review.

### **ARC 362. Professional Practice.**

Restricted to students in the School of Architecture. Ethical, legal, and administrative responsibilities of the architect; organizations, processes, and roles in architecture. Three lecture hours a week for one semester. Prerequisite: One of the following with a grade of at least C: Architecture 561R, 561C, or 560T.

### **ARC 368R. Topics in the History of Architecture.**

Seminars and lecture/seminars on advanced topics in the history of architecture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For students in the School of Architecture, Architecture 318L with a grade of at least C; for others, consent of instructor.

### **ARC 369J. City Architecture.**

Introduction to city architecture, urban design, and planning. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 369J, Urban Studies 328C, 352 (Topic 6), or Community Regional Planning 369K. Prerequisite: For students in the School of Architecture: Architecture 333 with a grade of at least C and upper-division standing; for others, upper-division standing.

### **ARC 170V, 370V. Topics in Digital Technology and Fabrication.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### **ARC 170W, 370W. Topics in Disaster Recovery.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper division standing

### **ARC 378R. Bachelor Design Study, Part I.**

Restricted to advanced design-level Bachelor of Architecture students. Independent research, planning, and prep course that must be followed by Architecture 578S. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; must have passed Portfolio Review; GPA of at least 3.5; and an approved Bachelor Design Study (BDS) proposal.

### **ARC 578S. Bachelor Design Study, Part II.**

Restricted to advanced design-level Bachelor of Architecture students. An independent studio that follows Architecture 378R. Five lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; must have passed Portfolio Review; a GPA of at least 3.5; a grade of at least C in Architecture 378R; and an approved Bachelor Design Study (BDS) proposal.

### **ARC 279, 379, 479, 579. Architectural Research.**

Investigation of problems selected by the student. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Consent of instructor and an approved architectural research proposal.

## **Graduate Courses**

### **ARC 380C. Topics in Visualization and Fabrication.**

Advanced topics in visualization and fabrication in such media as freehand drawing, modeling, photography, computer graphics, photogrammetry, and measured drawings. Five laboratory hours a week for one semester. Architecture 380C and 381R may not both be counted. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARC 380D. Topics in Design and Practice.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARC 180R. Proseminar in Architecture.**

Study of theories related to design, livability, and sustainability in the built environment. Includes collaboration with other students and research. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and admission to the Master of Architecture (postprofessional) degree program.

### **ARC 180V, 380V. Topics in Digital Technology and Fabrication.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ARC 180W, 380W. Topics in Disaster Recovery.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ARC 381D. Architectural Drawing.**

Visual communication in media, such as freehand drawing, modeling, photography, and measured drawings. Five laboratory hours a week for one semester. Architecture 381D and 386M (Topic: Architectural Drawing) may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARC 381F. Digital Drawing and Fabrication.**

Focus on advanced visual communication methodologies necessary for architectural generation, translation, and output. Five laboratory hours a week for one semester. Architecture 381F and 381R (Topic: Digital Drawing and Fabrication) may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARC 381T. Technical Communication.**

Studio to provide skills in producing construction documents as they relate to the design and building process. Six laboratory hours a week for one semester. Prerequisite: Graduate standing, Architecture 694, and consent of the graduate adviser.

### **ARC 381W. Visual Communication Workshop.**

Introductory workshop with a focus on developing graphic and basic design skills for the purpose of describing and communicating architectural ideas and form. Exposure to a diverse range of approaches involving freehand drawing, architectural graphic conventions, three-dimensional modeling of ideas, and an introduction to the design process. Five laboratory hours a week for one semester. Architecture 381R (Topic: Visual Communication Workshop) and 381W may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **ARC 382. Professional Practice.**

Ethical, legal, economic, and administrative processes and responsibilities of the practitioner in architecture and allied fields. Topics may include preservation law, community development, participatory design, and other aspects of organizations; methods and roles in design, planning, and preservation of the built environment. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARC 382P. Professional Residency Program Portfolio.**

Restricted to students participating in the Professional Residency Program. Under the supervision of a faculty member, students produce a portfolio based on the Professional Residency Program experience. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARC 382R. Professional Residency Program Paper.**

Restricted to students participating in the Professional Residency Program. Under the supervision of a faculty member, students produce a research paper based on the Professional Residency Program experience. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARC 383S. Site Design.**

Fundamentals of building and landscape relationships. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARC 383T. Site, Landscape, and Urban Studies.**

Topics in the history, design, and preservation of building sites, landscapes, and rural and urban communities. Three lecture hours a

week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 384F. Environmental Control: Heat, Air, and Water.**

Examine thermal comfort, heating, cooling, ventilation, plumbing systems, fire protection, and conveying equipment in buildings. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Architecture 384F, 384L, Architectural Interior Design 384F, and 384K. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 384G. Environmental Control: Light, Sound, and Electricity.**

Examine light and color fundamentals, daylighting, artificial illumination, acoustics, and electrical and information systems for buildings. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Architecture 384K, 384G, Architectural Interior Design 384L, 384G. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 384T. Topics in Building and Environment Studies.**

Topics include daylighting and the history of building technology. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 385Q. Construction.**

Introduction to building construction, materials, and structures. Analyze building assemblies and envelope design. Three lecture hours and three laboratory hours a week for one semester. Architecture 385K and 385Q may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 385R. Structures I.**

Examine theories of building construction and materials. Explore the analysis and design of structural components. Three lecture hours and three laboratory hours a week for one semester. Architecture 385R and 385T (Topic: Structures I) may not both be counted. Prerequisite: Graduate standing, Architecture 385Q with a grade of at least C, and consent of the graduate adviser.

#### **ARC 385S. Structures II.**

Continue to examine theories of building behavior and materials. Explore the analysis and design of structural systems. Three lecture hours and three laboratory hours a week for one semester. Architecture 385S and 385T (Topic: Structures II) may not both be counted. Prerequisite: Graduate standing, Architecture 385R with a grade of at least C, and consent of the graduate adviser.

#### **ARC 385T. Topics in Building Construction and Conservation.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 386C. Architectural Theory: Contemporary Issues.**

Restricted to students in the architecture or architectural studies program. Examine how architectural theory has shaped, and been shaped by, architectural practice in the 20th and 21st centuries, with an emphasis on architecture of the after-Modern. Three lecture hours a week for one semester. Architecture 386M (Topic: Arch Thry: Contemp Issues) and 386C may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 386D. Architectural Theory: Historical Overview.**

Restricted to students in the architecture or architectural studies program. Survey architectural theories since the Renaissance. Three lecture hours a week for one semester. Architecture 386D and 386M (Topic: Arch Thry: Historical Overview) may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 386M. Topics in Architectural Theory.**

Study of critical theories and practices that affect the built environment. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 2: Architectural Criticism.** Architecture 386M (Topic: Architectural Criticism) and 386M (Topic 2) may not both be counted.

**Topic 3: Architectural Photography.** Architecture 386M (Topic: Architectural Photography) and 386M (Topic 3) may not both be counted.

**Topic 4: City as Form and Idea.** Only one of the following may be counted: Architecture 386M (Topic 4), 386M (Topic: City as Form and Idea), 388R (Topic: City as Form and Idea).

**Topic 5: Community Design Engagement.** Architecture 386M (Topic: Community Design Engagement) and 386M (Topic 5) may not both be counted.

**Topic 6: Design Firm Leadership.** Architecture 386M (Topic: Design Firm Leadership) and 386M (Topic 6) may not both be counted.

**Topic 7: Design of New Communities.** Architecture 386M (Topic: Design of New Communities) and 386M (Topic 7) may not both be counted.

**Topic 8: Design Process.** Architecture 386M (Topic: Design Process) and 386M (Topic 8) may not both be counted.

**Topic 9: Designing the Way We Build.** Architecture 386M (Topic: Designing the Way We Build) and 386M (Topic 9) may not both be counted.

**Topic 10: Eileen Gray and E.1027.** Architecture 386M (Topic: Eileen Gray and E.1027) and 386M (Topic 10) may not both be counted.

**Topic 11: Energy Modeling and the Design Process.** Architecture 386M (Topic: Energy Modeling & Design Proc) and 386M (Topic 11) may not both be counted.

**Topic 12: Global Housing Challenge.** Architecture 386M (Topic: Global Housing Challenge) and 386M (Topic 12) may not both be counted.

**Topic 13: Light and Sustainable Design.** Architecture 386M (Topic: Light and Sustainable Design) and 386M (Topic 13) may not both be counted.

**Topic 14: Managing the Design Project.** Architecture 386M (Topic: Managing the Design Project) and 386M (Topic 14) may not both be counted.

**Topic 15: Place and Historical Imagination.** Architecture 386M (Topic: Place & Historical Imagination) and 386M (Topic 15) may not both be counted.

**Topic 16: Poetics of Building.** Architecture 386M (Topic: Poetics of Building) and 386M (Topic 16) may not both be counted.

**Topic 17: Advanced Theories of Architecture.** Architecture 386M (Topic: Advanced Theories of Architecture) and 386M (Topic 17) may not both be counted.

**Topic 18: Smart, Green and Just.** Architecture 386M (Topic: Smart, Green, and Just) and 386M (Topic 18) may not both be counted.

**Topic 19: Solar Geometry and Energy Flow.** Architecture 386M (Topic: Solar Geom/Energy Flow in Bldg) and 386M (Topic 19) may not both be counted.

**Topic 20: Technology/Techniques Sustainable Design.** Architecture 386M (Topic: Technol/Techniq Sustn Dsgn-Ger) and 386M (Topic 20) may not both be counted.

**Topic 21: Timber Technologies.** Architecture 386M (Topic: Timber Technologies) and 386M (Topic 21) may not both be counted.

**Topic 22: Urban Land Institute Workshop.** Same as Urban Design 382M (Topic 1). Only one of the following may be counted: Architecture 386M (Topic: Urban Land Institute Workshop) or Architecture 386M (Topic 22) or Urban Design 382M (Topic 1)

**Topic 25: Preservation Law.** Architecture 386M (Topic: Preservation Law) and 386M (Topic 25) may not both be counted.

**Topic 26: Computational Design.** Explore the theory and application of computational design. Use of software programs to develop experimental projects that uncover new tactics for the design of buildings and objects. Architecture 386M (Topic: COMPUTATIONAL DESIGN) and 386M (Topic 26) may not both be counted.

**Topic 27: Research Design.** Architecture 386M (Topic: Research Design) and 386M (Topic 27) may not both be counted.

**Topic 29: Futures and Cities.** Same as Urban Design 388R (Topic 1). Only one of the following may be counted: ARC 386M (Topic: Futures and Cities), 386M (Topic 29), Landscape Architecture 388 (Topic 2), Urban Design 388R (Topic 1)

**Topic 30: Race and Gender by Design.** Examine the relationship of design relative to the narratives of race, gender, and diversity. Architecture 386M (Topic: RACE AND GENDER: BY DESIGN) and 386M (Topic 30) may not both be counted.

### **ARC 387F. World Architecture: Origins to 1750.**

Introduction to architectural types, principles, and building technologies from prehistory to the mid-eighteenth century. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARC 387G. World Architecture: The Industrial Revolution to the Present.**

Examination of architecture types, principles, and building technologies with special attention to cultural transfers. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Architecture 387F with a grade of at least C, and consent of the graduate adviser.

### **ARC 388R. Topics in the History of Architecture and Historic Preservation.**

Seminars and lecture/seminars on advanced topics in architectural history, historic preservation, and the history of building technology. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser; additional prerequisites vary with the topic.

**Topic 1: 20th Century Latin American Architecture.** Architecture 388R (Topic: 20th Century Latin American Architecture) and 388R (Topic 1) may not both be counted.

**Topic 2: American Architecture.** Architecture 388R (Topic: American Architecture) and 388R (Topic 2) may not both be counted.

**Topic 3: Brazilian Urban Theory.** Architecture 388R (Topic: Brazilian Urban Theory) and 388R (Topic 3) may not both be counted.

**Topic 4: History of Central European Architecture, 1648-Present.** Architecture 388R (Topic: Cent European Arch, 1648-Pres) and 388R (Topic 4) may not both be counted.

**Topic 5: German Modernism.** Architecture 388R (Topic: German Modernism) and 388R (Topic 5) may not both be counted.

**Topic 6: History of Architecture Since 1985.** Architecture 388R (Topic: History of Architecture Since 1985) and 388R (Topic 6) may not both be counted.

**Topic 7: History of Building Technology.** Architecture 388R (Topic: History of Building Technology) and 388R (Topic 7) may not both be counted.

**Topic 8: Hybridity in Landscape/Architecture.** Architecture 388R (Topic: Hybridity in Landscape/Architecture) and 388R (Topic 8) may not both be counted.

**Topic 9: Loos and Mies.** Architecture 388R (Topic: Loos and Mies) and 388R (Topic 9) may not both be counted.

**Topic 10: Modern American Design.** Only one of the following may be counted: Architecture 386M (Topic: Modern American Design), 388R (Topic: Modern American Design), 388R (Topic 10).

**Topic 11: History of Architectural Theory.** Architecture 388R (Topic: HISTORY OF ARCHITECTURAL THRY) and 388R (Topic 11) may not both be counted.

**Topic 12: Romes Gardens and Landscapes.** Only one of the following courses may be counted: Architecture 388R (Topic: Italian Villa and Garden), 388R (Topic 12), Landscape Architecture 388 (Topic: Italian Villa and Garden), 388 (Topic 3).

**Topic 13: Modern History of Sustainable Architecture.** Architecture 388R (Topic: Modern History of Sustainable Architecture - GER) and 388R (Topic 13) may not both be counted.

**Topic 14: Modern European Architecture.** Architecture 388R (Topic: Modern European Arch-Europe) and 388R (Topic 14) may not both be counted.

**Topic 15: Methodologies in Architectural History.** Architecture 388R (Topic: Methodologies in Arch History) and 388R (Topic 15) may not both be counted.

**Topic 16: Advanced Architectural History.** Architecture 388R (Topic: Advanced Architecture Hist-ITA) and 388R (Topic 16) may not both be counted.

**Topic 17: Preservation History and Theory.** Architecture 388R (Topic: Preservation History & Theory) and 388R (Topic 17) may not both be counted.

**Topic 18: Preservation Planning and Practice.** Architecture 388R (Preservation Planning/Practice) and 388R (Topic 18) may not both be counted.

**Topic 19: Design Logics: Projection and Proportion in Architecture.** Architecture 388R (Topic: Design Logics: Projection and Proportion in Architecture) and 388R (Topic 19) may not both be counted.

**Topic 20: Migratory Urbanism.** Architecture 386M (Topic: Migratory Urbanism) and 388R (Topic 20) may not both be counted.

**Topic 21: Professional Design Practice: Baroque Rome.** Only one of the following may be counted: Architecture 388R (Topic: Prof Dsgn Prac: Baroq Rome), 388R (Topic 21), Landscape Architecture 388 (Topic: Prof Dsgn Prac: Baroq Rome), 388 (Topic 4). Additional prerequisite: Graduate standing

**Topic 22: Cultural Landscape and Ethnographic Methods.** Architecture 388R (Topic: Cultl Lndscp and Ethnogr Meths) and 388R (Topic 22) may not both be counted.

### **ARC 389, 689. Research in Architecture.**

Investigation of problems in architecture, urban design, and development selected by the student with approval of the Graduate Studies Committee. Three or six lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ARC 189R. Architectural Research.**

Investigation of problems selected by the student with approval of the supervising faculty member. One studio hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **ARC 190C, 390C. Architecture Practicum.**

Restricted to students in the following programs: Master of Architecture (first professional), Master of Architecture (post-professional), Master of Science in Sustainable Design, Master of Science in Urban Design, Master of Arts in Architectural History, Master of Science in Historic Preservation, Master of Science in Architectural Studies. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional hours to be arranged. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite:

Graduate standing, and written consent of the graduate adviser and chair of the Architecture Graduate Studies Committee.

#### **ARC 690H. Master's Design Studio--Dual Degree.**

Restricted to dual degree students. Advanced study in architecture, addressing complex design problems and issues related to various architectural topics. The equivalent of nine laboratory hours a week for two semesters. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 391C. Urban Design History, Theory, and Criticism.**

Study of critical theories and practices that affect the built environment. Three lecture hours a week for one semester. Architecture 386M (Topic: Urban Design History/Theory/Criticism) and 391C may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 391P. Productions.**

Same as Architectural Interior Design 391P. Designed to explore the relationships between the generation of form, space, experience, and atmosphere in the spatial practices of interior design, architecture, and art. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 386M (Topic: Productions), 391P, Architectural Interior Design 386M (Topic: Productions), 391P. Prerequisite: For students in the School of Architecture, graduate standing; for others, graduate standing and consent of instructor.

#### **ARC 392D. Advanced Drawing.**

Focus on personal design methodology by exploring multiple drawing methods, skills, and approaches including manual, digital, and hybrid techniques. Refines design communication skills by pairing clearly articulated design intention with compelling drawings, and expressing them via effective verbal presentations. Five laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 692K. Historic Preservation Studio.**

Interdisciplinary studio integrating design and other preservation issues at scales from interiors to landscapes and urban districts. The equivalent of fifteen laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

#### **ARC 392P. Prototype.**

Same as Architectural Interior Design 392P. Focus on digital fabrication as a link between architecture and product design. Five laboratory hours a week for one semester. Only one of the following may be counted: Architecture 381R (Topic: Prototype), 392P, Architectural Interior Design 381R (Topic: Prototype), 392P. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 392V. Digital Visualization and the Built Environment.**

Digital visualization techniques used to model three dimensional environments and motion with digital media. Includes lectures, software demonstrations, and projects that focus on the digital translation of spatial experience, including the visualization techniques associated with rendering texture, character, and environment. Five laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of graduate adviser.

#### **ARC 392W. Wood Design.**

Practice on basic woodworking skills: tool sharpening, layout, millwork, joinery, gluing, sanding, and finishing. Five laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of graduate adviser.

#### **ARC 694. Architectural Design: Vertical Studio.**

Design problems dealing with subjective and objective decision making, study and application of drawing and other communication skills for architects, investigation of physical and social contexts, and the practical requirements of sound building. The equivalent of fifteen laboratory hours a week for one semester. Architecture 393 and 694 may not both be counted. Architecture 394 and 694 may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 395C. Mexican Architecture and Urbanism: From Pre-Columbian to Contemporary.**

A survey of Mexican architecture and urbanism from its origins in pre-Columbian times to the twenty-first century. Evaluation of architecture as a cultural production intricately connected to its artistic and historical context and the landscape that supports it. Three lecture hours a week for one semester. Architecture 388R (Topic: Mexican Architectural History) and 395C may not both be counted. Prerequisite: For students in the School of Architecture, graduate standing; for all others, graduate standing and consent of instructor.

#### **ARC 395D. Frank Lloyd Wright: Design, Method, Theory.**

Same as Architectural Interior Design 395D and Landscape Architecture 395D. Comprehensive study of Frank Lloyd Wright's life and work with emphasis on the analyses of his concepts of organic architecture, design methods, and theories. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 388R (Topic: Frank Lloyd Wright: Design, Method, Theory), 395D, Architectural Interior Design 388R (Topic: Frank Lloyd Wright: Design, Method, Theory), 395D, Landscape Architecture 388 (Topic: Frank Lloyd Wright), 395D. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ARC 395E. History and Theories of Landscape Architecture I.**

Overview and chronological series of in-depth studies in the history of major garden cultures and designed landscapes of the Western and Eastern worlds. Introduction to methodological approaches to the formal, social, and cultural history of gardens and landscapes, as well as to relevant theoretical frameworks for interpreting these designed landscapes and for use in conceptualizing landscapes, architecture, and urban projects in studio design. Three lecture hours a week for one semester. Architecture 388R (Topic: History and Theories of Landscape Architecture I) and 395E may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 395F. History and Theories of Landscape Architecture II.**

Continuation of Architecture 395E through the modern period and contemporary times. Formal and cultural history of gardens, parks, and public landscapes from 1700 to about 1990. Includes comparative material from the contemporary period, 1980 to 2010. Three lecture hours a week for one semester. Architecture 388R (Topic: History and Theories of Landscape Architecture II) and 395F may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 395G. The American Home: Identity, Process, and Marketing.**

Same as Architectural Interior Design 395G and Landscape Architecture 395G. An examination of how American housing is conceived, developed, and marketed, as well as relationships between home buyers and builders. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 388R (Topic: American Home), 395G, Architectural Interior Design 388R (Topic: American Home), 395G, Landscape Architecture 388 (Topic: American Home), 395G. Offered on the letter-grade basis only. Prerequisite: For students in the School

of Architecture, graduate standing; for others, graduate standing and consent of instructor.

#### **ARC 395J. Originality Tradition in Baroque Rome: Borromini.**

Same as Landscape Architecture 395J. Explores the synthetic act of design and notions of originality and tradition in the arts of Baroque Rome by studying Francesco Borromini and his work through the lenses of professional design practice, the arts, contemporary Galilean science, and papal society. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 388R (Topic: Professional Design Practice: Baroque Rome), 395J, Landscape Architecture 388 (Topic: Professional Design Practice: Baroque Rome), 395J. Prerequisite: For students in the School of Architecture, graduate standing; for others, graduate standing and consent of instructor.

#### **ARC 395K. Representing Landscape and Architecture, 1500-2015.**

Same as Landscape Architecture 395K. Explores the roles of visual representation in design and professional practice from Leonardo da Vinci to the digital age. An overview of the history of techniques, media, and conventions of representation in architecture and landscape architecture and in their intersections. Includes some drawing and painting. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 388R (Topic: Representing Landscape and Architecture, 1500-2015), 395K, Landscape Architecture 388 (Topic: Representing Landscape and Architecture, 1500-2015), 395K. Prerequisite: For students in the School of Architecture, graduate standing; for others, graduate standing and consent of instructor.

#### **ARC 695S. Advanced Architectural Design: Integrative Studio.**

Advanced studio to develop skills in assimilating concepts into a feasible building design. Fifteen laboratory hours a week for one semester. Architecture 695 and 695S may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Architecture 694; and consent of the Graduate Adviser.

#### **ARC 696. Advanced Architectural Design.**

Advanced problems in architectural design to help develop skills in areas of students' and faculty member's choice, including interior architecture and preservation, as well as landscape, urban, and sustainable design. The equivalent of fifteen laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, Architecture 694 or the equivalent, and consent of the graduate adviser.

#### **ARC 697. Master's Design Studio.**

Forum for advanced study in architecture, addressing complex design problems and issues related to various architectural topics. The equivalent of eighteen laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 397K. Doctoral Research in Architecture.**

Conference course for students preparing for the dissertation colloquium. Conference course. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in architecture and consent of the graduate adviser.

#### **ARC 698. Thesis.**

For students seeking the Master of Science or Master of Arts degrees in the School of Architecture, those seeking the Master of Architecture as a postprofessional degree, and those seeking the Master of Architecture as a first professional degree who choose to complete the requirements of a concentration. The equivalent of three lecture hours a week for two

semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in architecture and consent of the graduate adviser; for 698B, Architecture 698A.

#### **ARC 398D. Departmental Report.**

Preparation of a degree project to fulfill the requirement for the Master of Science in Historic Preservation or other School of Architecture degree program under the departmental report option. May be taken for a single semester (similar to the Professional Report), or two semesters (similar to the Thesis). The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in architectural studies and consent of the graduate adviser.

#### **ARC 398T. Supervised Teaching in Architecture.**

Designed to orient the beginning teacher in effective methods of teaching architecture and related topics. Three lecture hours a week for one semester. Required for assistant instructors in architecture. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **ARC 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

### **Professional Courses**

## **Art Education Courses**

### **Art Education: AED**

#### **Lower-Division Courses**

#### **Upper-Division Courses**

#### **Graduate Courses**

##### **AED 381G. Foundations of Art Education.**

Explores foundational writings and beliefs, past and present literature, and perspectives within art education. Three lecture hours a week for one semester. Prerequisite: Graduate standing in art education and consent of the graduate adviser.

##### **AED 381K. Contemporary Issues in Art Education.**

The role of art education in education and society, including technology, multiculturalism, gender studies, contemporary art, visual and material culture, interdisciplinary connections, media studies, and community-based art education. Three lecture hours a week for one semester. Prerequisite: Graduate standing in art education, Art Education 381G, and consent of the graduate adviser.

##### **AED 382G. Introduction to Research in Art Education.**

Explores diverse approaches and methodologies for conducting research in art education. Three lecture hours a week for one semester. Prerequisite: Graduate standing in art education and consent of the graduate adviser.

##### **AED 382H. Thesis Proposal and Preparation.**

Restricted to art education majors. Focuses on the preparation of a graduate thesis proposal, with emphasis on the student's identification of a central research question. Three lecture hours a week for one

semester. Prerequisite: Graduate standing, Art Education 382G and consent of the graduate advisor.

#### **AED 382L. Applied Project in Art Education.**

Research based applied project in Art Education. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; Art Education 382H; project proposal approval from graduate committee; and consent of the graduate adviser.

#### **AED 383J. Museum Education: History and Theory.**

Historical and philosophical development of American art museum education. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **AED 383K. Museum Education: Practice and Application.**

The practice and application of museum education within the context of art museums. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **AED 383L. Issues in Museum Studies.**

Same as Art History 394 (Topic 6). Survey major issues in the field of museum studies. Three lecture hours a week for one semester. Only one of the following may be counted: Art Education 383L, Art History 394 (Topic: Issues in Museum Studies), 394 (Topic 6). Prerequisite: Graduate standing and consent of the graduate adviser.

#### **AED 384. Special Topics in Art Education.**

Readings, discussion, and research relevant to major current trends in art education. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **AED 385. Independent Study in Art Education.**

Restricted to art education majors. Student-initiated study with an art education faculty member covering the topic of student's research focus. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, consent of the graduate advisor, and consent of instructor.

#### **AED 386. Internship and Field Study.**

Supervised observation and research in art education related to the candidate's area of emphasis. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, consent of the graduate advisor, and consent of instructor.

#### **AED 387C. Case Studies in Community-Based Art Education.**

Restricted to art education majors. Students review examples of community-based art programs to understand their histories, philosophies, purposes, organization, funding, operation, evaluation, and redevelopment; and discuss issues affecting the successful creation, preservation, and development of such programs. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate advisor.

#### **AED 387D. Program Development in Community-Based Art Education.**

Restricted to art education majors. Students examine the process of establishing an exemplary community-based art program; conduct ethnographic research and write grant proposals toward the creation of an ideal community-based art program or the improvement of an existing program; and develop operational activities and explore various approaches to art production to prepare for implementing a program.

Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate advisor.

#### **AED 388C. Art Instruction through Arts-Based Research.**

Restricted to art education majors. Students observe teaching and learning styles in early childhood through grade twelve art classrooms and review and evaluate their observations using class discussions, journals, creative reports, and other arts-based research techniques. Three lecture hours and three hours of fieldwork a week for one semester. Prerequisite: Graduating standing and consent of the graduate advisor.

#### **AED 388D. Art and the Creation of Meaning.**

Restricted to art education majors. Discussion, analysis, and hands-on use of the materials, techniques, and processes used to create artwork in early childhood through grade twelve classrooms. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate advisor.

#### **AED 388E. Art and Critical Discourse.**

Restricted to art education majors. Focuses on personal and professional critiques of artifacts and artistic products. Students explore and justify their responses to artwork in written and verbal discussion. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate advisor.

#### **AED 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in art education; Art Education 382G and 382H; eighteen semester hours of coursework in art education, art history, or studio art; and consent of the graduate adviser; for 698B, Art Education 698A.

#### **AED 398T. Supervised Teaching in Art Education.**

Teaching under the close supervision of the course instructor for one semester; weekly group meetings with the instructor, individual consultations, and reports throughout the teaching period. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing in art education, or graduate standing and appointment as a teaching assistant.

## **Professional Courses**

# **Art History Courses**

## **Art History: ARH**

### **Lower-Division Courses**

#### **ARH 301 (TCCN: ARTS 1301). Introduction to the Visual Arts.**

A broad survey of selected traditions of art with an emphasis upon understanding their visual elements and cultural significance. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

#### **ARH 302 (TCCN: ARTS 1303). Survey of Ancient through Medieval Art.**

A study of selected visual works throughout the world from prehistoric time to 1400 CE. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

### **ARH 303 (TCCN: ARTS 1304). Survey of Renaissance through Modern Art.**

A study of selected visual works throughout the world from 1400 CE to the present. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

### **ARH 304. Issues in Visual Culture.**

Restricted to art history majors. Examines the modern and contemporary history of art and visual culture in relation to a broader set of problems fundamental to visual representation throughout the history of art. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

### **ARH 314. Mexico City: Aztec to Modern.**

Explores the building of Mexico City, sited in a lake bed surrounded by active volcanoes and tectonic activity, from the time of the Aztecs to the present. Addresses art, architecture, science, and engineering, as well as the role that art and archaeological museums have played in the capital's modern, urban identity. Three lecture hours a week for one semester.

### **ARH 119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, 919Q. Topics in Art History.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **ARH 321. Problems in Art Historical Research.**

Restricted to art history majors. Focus on developing research skills. Introduction to critical analysis in the context of using various resources and primary materials. Three lecture hours a week for one semester.

### **ARH 322. Issues in Exhibitions and Collections of Visual Arts.**

Examines the histories and practices of collections and exhibitions in the visual arts. Three lecture hours a week for one semester.

### **ARH 325. Art and Archaeology of the Ancient Near East.**

Examines various aspects of material culture, including the rise of monumentality and urbanism; media such as writing and figurative arts; and the history and politics of archaeological research in the area of the Fertile Crescent, Turkey, and Iran. Three lecture hours a week for one semester. Art History 325 and 361L (Topic: Art/Archeology of the Ancient Near East) may not both be counted.

### **ARH 326J. The Parthenon Through the Ages.**

Examines why the Parthenon is of relevance today for a global audience. Subjects include the postantique lives of this unique monument as a Christian cathedral and pilgrimage site, a mosque, a ruin, and an archaeological icon; the various debates about its restoration and preservation; and the problem of cultural ownership. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 326J, 362 (Topic: Parthenon through the Ages), Classical Civilization 340 (Topic: Parthenon through the Ages).

### **ARH 326K. Myth and Images in the Greek and Roman Mediterranean.**

Examines various methods of interpretation, such as archaeological and art historical analysis of mythical Greek and Roman narratives as they appear in visual arts of antiquity. Three lecture hours a week for one

semester. Only one of the following may be counted: Art History 326K, 362 (Topic: Myth in Images in Classical Antiquity), Classical Civilization 340 (Topic: Myth in Images in Classical Antiquity).

### **ARH 326L. Visual Cultures of the Mediterranean Islands.**

Analysis of material and visual culture and the divergent histories of archaeology and art history in Cyprus, Crete, and Sicily. Three lecture hours a week for one semester.

### **ARH 326M. Art and Archaeology of Greek Sanctuaries.**

Examines the archaeology of Olympia, Delphi, Dodona, Delos, and Samos, their global relevance today, and the history of archaeological research. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 326M, 362 (Topic: Art and Archaeology of Greek Sanctuaries), Classical Civilization 340 (Topic: Art and Archaeology of Greek Sanctuaries).

### **ARH 327N. Art and Politics in Imperial Rome.**

Same as Classical Civilization 340 (Topic 2). Public art of the Roman Empire from Augustus to late antiquity, ca. 31 BC to AD 350. Three lecture hours a week for one semester. Art History 327N and Classical Civilization 340 (Topic 2) may not both be counted. Prerequisite: Upper-division standing.

### **ARH 327R. Art in the Lives of Ordinary Romans.**

Same as European Studies 347 (Topic 26). Art and architecture from the archaeological sites of Pompeii, Herculaneum, and Ostia as indices of Roman culture, 100 BC to AD 250. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 327R, European Studies 347 (Topic: Art in the Lives of Ordinary Romans), 347 (Topic 26).

### **ARH 327S. Art and Politics in Republican Rome.**

The art and architecture of republican Rome, ca. 500-44 BCE, when the city established dominance in the Mediterranean and developed an artistic tradition that would flourish into the Empire. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 327S, 362 (Topic: Art and Politics in Republican Rome), Classical Civilization 340 (Topic: Art and Politics in Republican Rome), European Studies 347 (Topic: Art and Politics in Republican Rome).

### **ARH 327T. Art in the Age of Hadrian.**

Examines art in Rome under the reign of emperor Hadrian (117-138), who inherited the empire at its greatest geographical extent. Three lecture hours a week for one semester.

### **ARH 327U. Love, Beauty, and Protection.**

Same as Women's and Gender Studies 345C. Examine selected works of Greek and Roman art (sixth century B.C. to fourth century A.D.) to explore how ancients thought about themselves with regard to love, sexuality, divine and human beauty, and protection from demonic forces. Focus on social and cultural contexts, gender, and practices of daily life. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 327U, 362 (Topic: Love, Beauty, and Protection), Women's and Gender Studies 345 (Topic: Love, Beauty, and Protection), 345C.

### **ARH 328J. Arts of Islam, 650-1500.**

Same as Religious Studies 359M. Early Islamic art and architecture, with an emphasis on interconnections between the Islamic world and Europe. Examines unique ways Islamic visual culture developed out of the classical and late antique world. Artworks will be contextualized within early Islamic history, religion, and culture. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328J, 363 (Topic: Arts of Islam: Caliphs-Sultans), Islamic Studies

372 (Topic: Arts of Islam: Caliphs-Sultans), Middle Eastern Languages and Cultures 321 (Topic: Arts of Islam: Caliphs-Sultans), Middle Eastern Studies 342 (Topic: Arts of Islam: Caliphs-Sultans), Religious Studies 358 (Topic 17), 359M.

#### **ARH 328K. Arts of Islam 1500-Present.**

Same as Religious Studies 359N. Later Islamic art and architecture, beginning with the world empires of the Ottomans, Safavids, and Mughals, and extending into the modern and contemporary periods. Subjects include the social and historical context of Islamic art in these periods and its unique visual culture. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328K, 363 (Topic: Arts of Islam, 1500-1800), 363 (Topic: Arts of Islam: 1500-Present), Islamic Studies 372 (Topic: Arts of Islam, 1500-1800), 373 (Topic: Arts of Islam: 1500-Present), Middle Eastern Languages and Cultures 321 (Arts of Islam: 1500-Present), Middle Eastern Studies 342 (Topic: Arts of Islam: 1500-Present), Religious Studies 358 (Topic 18), 359N.

#### **ARH 328L. Medieval Middle East History in One Hundred Objects.**

Same as History 339Q, Islamic Studies 373 (Topic 21), and Middle Eastern Studies 343 (Topic 11). Survey the history of the medieval Middle East, from the period of Late Antiquity (in the seventh century) to the rise of early modern empires of the Safavids, Ottomans, and Mughals (in the seventeenth century), through close examination of the meaning and significance of 100 objects. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328L, 363 (Topic: Mid East Hist in 100 Objects), History 339Q, 364G (Topic: Mid East Hist in 100 Objects), Islamic Studies 373 (Topic: Mid East Hist in 100 Objects), 373 (Topic 21), Middle Eastern Studies 343 (Topic: Mid East Hist in 100 Objects), 343 (Topic 11). Prerequisite: Upper-division standing.

#### **ARH 328M. Modern Middle East History in One Hundred Objects.**

Same as History 343E, Islamic Studies 373 (Topic 23), and Middle Eastern Studies 343 (Topic 12). Survey the history of the medieval Middle East, from 1500 to the present, through close examination of the meaning and significance of 100 objects. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328M, 366P (Topic: Mod Mid East In 100 Objects), History 343E, 364G (Topic: Mod Mid East In 100 Objects), Islamic Studies 373 (Topic: Mod Mid East In 100 Objects), 373 (Topic 23), Middle Eastern Studies 343 (Topic: Mod Mid East In 100 Objects), 343 (Topic 12). Prerequisite: Upper-division standing.

#### **ARH 328N. Arabs and Vikings: Art and Culture.**

Same as German, Scandinavian, and Dutch Studies 362F and Middle Eastern Studies 343 (Topic 13). Explore the art and culture of the global Middle Ages through close examination of recent films, popular and academic publications, and works of art and architecture that reveal the interconnection between the European and the Islamic worlds. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328N, 361L (Topic: Arabs/Vikings Art Culture), German, Scandinavian, and Dutch Studies 360 (Topic: Arabs/Vikings Art Culture) 362F, Middle Eastern Studies 343 (Topic: Arabs/Vikings Art Culture), 343 (Topic 13). Prerequisite: Upper-division standing.

#### **ARH 329J. Byzantine Art.**

Same as Religious Studies 357I. Examination of the medieval art and architecture of the eastern Roman empire, including related traditions (Coptic, Armenian, Georgian, Crusader, Norman). Three lecture hours a week for one semester. Only one of the following may be counted: Art History 329J, Religious Studies 357 (Topic 2), 357I.

#### **ARH 329N. Art and Architecture of Late Antiquity.**

Examination of early Christian and late Roman art and architecture, including related traditions, such as Jewish, Coptic, Armenian, Georgian, Persian, and Syriac. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 329N, 362R (Topic: Art and Architecture of Late Antiquity), Classical Civilization 340 (Topic: Art and Architecture of Late Antiquity).

#### **ARH 129Q, 229Q, 329Q, 429Q, 529Q, 629Q, 729Q, 829Q, 929Q. Topics in Art History.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **ARH 329R. Romanesque Art and Architecture.**

Same as European Studies 347 (Topic 28). Form and function of religious art in twelfth-century Europe. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 329R, European Studies 347 (Topic: Romanesque Art and Architecture), 347 (Topic 28).

#### **ARH 329T. Art in the Age of Dante and Giotto.**

Same as European Studies 347 (Topic 49). Examine the art of the later Middle Ages in Italy (1200-1400), including work by Giotto, Duccio, Nicola and Giovanni Pisano, and Arnolfo de Cambio. Three lecture hours a week for one semester. Only one of the following may be counted Art History 329T, Art History 363 (Topic: Art in the Age of Dante/Giotto), European Studies 347 (Topic: Art in the Age of Dante/Giotto), European Studies 347 (Topic 49).

#### **ARH 330G. Art at Court: The Gothic Period.**

Same as European Studies 347 (Topic 45). Changing manifestations of Gothic art and architecture at selected court centers, 1140 to 1400. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 330G, European Studies 347 (Topic: Art at Court: The Gothic Period), 347 (Topic 45).

#### **ARH 330J. Gothic Cathedral: Amiens.**

Same as European Studies 347 (Topic 30) and Religious Studies 357Q. An examination of the cathedral at Amiens, its meaning, structure, political and financial contexts, and sculptural programs, as well as its influence on other buildings in France and Germany. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 330J, 374 (Topic: Gothic Cathedral: Amiens), European Studies 347 (Topic: Gothic Cathedral: Amiens), 347 (Topic 30), Religious Studies 357 (Topic 14), 357Q.

#### **ARH 331J. Art and Experience in Central Italy.**

Restricted to students admitted to the Learning Tuscany program. Art and architecture of central Italy. The equivalent of three lecture hours a week for one semester. Prerequisite: Consent of instructor.

#### **ARH 331K. Early Italian Renaissance Art to 1470.**

Same as Core Texts and Ideas 352D and European Studies 347 (Topic 29). Traces the beginnings of the "rebirth" (renaissance) of the visual arts, from the end of the Middle Ages to the heyday of the Medici. Works of art are analyzed both in formal terms and in relation to contemporary society, religion, philosophy, economics, statecraft, gender, and other significant issues. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 331K, Core Texts and Ideas 352D, 375 (Topic: Early Italian Renaissance Art to 1470), European

Studies 347 (Topic: Early Italian Renaissance Art to 1470), 347 (Topic 29).

### **ARH 331N. Later Quattrocento Art, 1470-1500.**

Explores the visual arts created in the Italian peninsula during the final decades of the fifteenth century, or Quattrocento. Emphasis will be on common themes such as the revival of antiquity, the exaltation of the prince, and specific local characteristics. Three lecture hours a week for one semester.

### **ARH 331P. Art and the City in Renaissance Italy.**

Same as Core Texts and Ideas 375 (Topic 4) and European Studies 347 (Topic 33). Art, architecture, and emerging civic identity in Florence, Siena, Venice, and other Italian Renaissance city-states. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 331P, 364 (Topic: Art and the City in Renaissance Italy), Core Texts and Ideas 375 (Topic: Art and the City in Renaissance Italy), 375 (Topic 4), European Studies 347 (Topic: Art and the City in Renaissance Italy), 347 (Topic 33), Italian Civilization 349 (Topic: Art and the City in Renaissance Italy), Western Civilization 320 (Topic: Art and the City in Renaissance Italy).

### **ARH 331Q. Art in Medici Florence.**

Explores the social and cultural fabric of Florence before and after the rise to power of the Medici family beginning in the early fifteenth century. Three lecture hours a week for one semester.

### **ARH 331R. Michelangelo and His World.**

Examine the work of artist Michelangelo Buonarroti (1475-1564). Three lecture hours a week for one semester. Art History 331R and 364 (Topic: Michelangelo and His World) may not both be counted.

### **ARH 331S. Art, Geology, and Place in Italy.**

Examine the intersection of art, geology, and the geographic notion of 'place' in Italy, using a thematic rather than geographic approach. Three lecture hours a week for one semester. Art History 331S and 364 (Topic: Art/Geology/Place in Italy) may not both be counted.

### **ARH 332K. Northern Renaissance Art, 1350-1500.**

Same as European Studies 347 (Topic 27) and Religious Studies 357J. Northern European art from the International Style to van Eyck and Hieronymus Bosch. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 332K, European Studies 347 (Topic: Northern Renaissance Art, 1350-1500), 347 (Topic 27), Religious Studies 357 (Topic: Northern Renaissance Art, 1350-1500), 357 (Topic 7), 357J.

### **ARH 332L. Northern Renaissance Art, 1500-1600.**

Same as European Studies 347 (Topic 32) and Religious Studies 357K. Art and cultural development in the sixteenth century; artists include Durer, Gruenewald, Holbein, and Brueghel. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 332L, European Studies 347 (Topic: Northern Renaissance Art, 1500-1600), 347 (Topic 32), Religious Studies 357 (Topic: Northern Renaissance Art, 1500-1600), 357 (Topic 6), 357K. Prerequisite: Upper-division standing.

### **ARH 333K. Italian Baroque Art.**

The art of Italy in the seventeenth and eighteenth centuries; includes the sixteenth-century sources from which Roman baroque developed. Three lecture hours a week for one semester.

### **ARH 333L. The Age of Rembrandt and Rubens: Northern Baroque Art.**

Same as European Studies 347 (Topic 31) and Religious Studies 357R. Northern European art in the seventeenth century, stressing the Netherlands and Flanders. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 333L, European Studies 347 (Topic: The Age of Rembrandt and Rubens: Northern Baroque Art), 347 (Topic 31), Religious Studies 357 (Topic 11), 357R.

### **ARH 333M. Rembrandt and Vermeer.**

Examine the lives and work of Rembrandt (1606-1669) and Jan Vermeer (1632-1675) from diverse methodological perceptions. Three lecture hours a week for one semester. Art History 333M and 365 (Topic: Rembrandt and Vermeer) may not both be counted.

### **ARH 335F. Art and the Moral Law.**

Examines the revolutionary energy of 'Art for Art's Sake' in nineteenth century Europe and various artists' challenge to the moral law, especially in Britain and France. Three lecture hours a week for one semester.

### **ARH 335G. Art and Landscape 1778-1908.**

In Europe, the arts of landscape (painting, gardening, poetry and the novel) flourished more creatively than ever in the period covered. Exploration of these arts, their intersections with each other, and across national boundaries. Three lecture hours a week for one semester.

### **ARH 335H. Buddhist Traditions and Nineteenth-Century Art.**

Examines the extent to which Buddhism and Buddhist art influenced artists and Western culture in the nineteenth century, especially in the development of modernism. Three lecture hours a week for one semester.

### **ARH 335J. Nineteenth-Century Art.**

Examines European art and themes in art during the nineteenth century. Three lecture hours a week for one semester.

### **ARH 335N. European Art, 1789-1848.**

European painting and sculpture as social and political events from the French Revolution to the revolutionary crises of midcentury. Three lecture hours a week for one semester.

### **ARH 335R. Burne-Jones and Friends.**

Explore the work of British symbolist painter Edward Burne-Jones (1833-1898) and its place within 19th-century European culture. Three lecture hours a week for one semester. Art History 335R and Art History 366J (Topic: Burne-Jones and Friends) may not both be counted.

### **ARH 335T. Goya in Context.**

Explore the works of Francisco Goya (1746-1828). Three lecture hours a week for one semester. Art History 335T and 366J (Topic: Goya in Context) may not both be counted.

### **ARH 336D. Derek Jarman: Art and Film.**

The place of Derek Jarman (1942-1994) in the history of film is assured, but he was also a painter, wrote memoirs, and created a famous garden. Discussion of all his works in the context of his life, British culture, and his HIV/AIDS status. Three lecture hours a week for one semester. Art History 336D and 366N (Topic: Derek Jarman: Art/Film-Making) may not both be counted.

### **ARH 337K. Twentieth-Century European Art to 1940.**

Same as European Studies 347 (Topic 46). Major movements in the development of modern European painting and sculpture. Three lecture hours a week for one semester. Only one of the following may be

counted: Art History 337K, European Studies 347 (Topic: Twentieth-Century European Art to 1940), 347 (Topic 46).

### **ARH 338J. Performing Art History.**

Uses the work of one seminal performance, film, video, and installation artist as a case study for considering the history of minimalism, video, and performance in the United States and Europe from the 1960s to the present and for developing ways of writing about time-based media in general. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 338J, 359 (Topic: Performing Art History), 366P (Topic: Performing Art History), Women and Gender Studies 345 (Topic: Performing Art History). Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **ARH 338L. Art since 1930: Modernism and Mass Modernity.**

Avant-garde activity, primarily painting, photography, and film, in the United States and Europe from 1930 to 1970. Three lecture hours a week for one semester.

### **ARH 338M. Art and Culture: 1968 and After.**

Artistic and critical activity in the United States and Europe from 1968 to the present. Three lecture hours a week for one semester.

### **ARH 338N. Sculpture as Model in the Twentieth Century.**

Examines the inherent problems in making and interpreting sculpture in the twentieth century in the United States and Europe. Three lecture hours a week for one semester.

### **ARH 338V. Magazine as Archive: View Magazine 1940-1947.**

Considers the fate of avant-garde culture globally during World War II and its immediate aftermath through the lens of View Magazine and primary research conducted in the Harry Ransom Center. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 338V, 359 (Topic: Magazine as Archive: 1940-1947), 366P (Topic: Magazine as Archive: 1940-1947). Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **ARH 339J. American Art: Colonial Era to the Civil War.**

Painting, sculpture, and architecture from the early seventeenth century to 1860. Three lecture hours a week for one semester.

### **ARH 339K. American Art: Civil War to the Armory Show.**

Painting, sculpture, and architecture from 1860 to 1913. Three lecture hours a week for one semester.

### **ARH 339L. Twentieth-Century American Art to the 1950s.**

Art in the United States from the Armory Show through abstract expressionism. Three lecture hours a week for one semester.

### **ARH 339M. American Art, 1958-1985.**

Survey of major movements from 1958 to 1985, from pop art to graffiti art and new expressionism. Three lecture hours a week for one semester.

### **ARH 339N. Painting in America to 1860.**

Same as American Studies 325F. Painting in British colonial North America and the United States prior to the Civil War. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 325 (Topic 2), 325F, Art History 339N, 374 (Topic 1).

### **ARH 339P. Painting in the United States, 1860-1913.**

Same as American Studies 325G. Painting in the United States from the Civil War to the Armory Show. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 325 (Topic 3), 325G, Art History 339P, 374 (Topic 2).

### **ARH 339Q. Modernism in American Design and Architecture.**

Same as American Studies 330 and Urban Studies 320M. A historical survey of artifacts, buildings, and urban environments, focusing on responses to machine-age civilization. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 330, Art History 339Q, Urban Studies 352 (Topic 5), 320M. Prerequisite: Upper-division standing.

### **ARH 339R. Art, Art History, and Medicine.**

Examines similarities and differences between the discipline of art history and the types of visual training offered by medical schools in conjunction with museums. Builds observational skills necessary for both medicine and art history while remaining grounded in the methodologies and purposes of art history. Sharpens critical thinking skills about images and texts. Cultivates interdisciplinary collaboration in consideration of select examples of European and U.S. art, including—but not limited to—medical or anatomical subjects. Three lecture hours a week for one semester.

### **ARH 340L. History of Photography.**

The history of photography, including major historic processes, influential photographers, critical debates, and the significant social, political, and economic circumstances that shaped the development of the medium and the diverse works that were created since its origins in the nineteenth century. Three lecture hours a week for one semester. Art History 340L and 366N (Topic: History of Photography) may not both be counted.

### **ARH 341J. Nineteenth-Century Latin American Art.**

Art of the nineteenth century in Latin America, including Argentina, Brazil, Colombia, Chile, Mexico, Paraguay, Peru, Uruguay, Venezuela, and the Caribbean. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 341J, 361 (Topic: Reframing the Nation: Nineteenth-Century Latin American Art), Latin American Studies 327 (Topic: Reframing the Nation: Nineteenth-Century Latin American Art).

### **ARH 341K. Modern Art of Mexico.**

Same as Latin American Studies 327 (Topic 2). Mexican visual culture from the late nineteenth century through 1968. Emphasis on the emergence of modernist avant-gardes and popular entertainment, and their ambivalent relationship to state, church, and market. Also explores how self-consciously negotiating the tension between native and international influences, artists, critics, and curators contributes to notions of *Lo Mexicano*, or "Mexicanness." Three lecture hours a week for one semester. Art History 341K and Latin American Studies 327 (Topic 2) may not both be counted.

### **ARH 341L. Chicano Art Histories and Futures.**

Same as Latin American Studies 327 (Topic 1). Mexican American art since the 1960s, with an emphasis on the visual production and exhibition of identity inside and outside the Chicano civil rights movement and the politics of U.S. multiculturalism. An introduction to a broad range of art history written to date—including recent feminist and queer interventions—as a means of envisioning a supposed "post-Chicano" or "post-racial" moment. Three lecture hours a week for one semester. Art History 341L and Latin American Studies 327 (Topic 1) may not both be counted.

### **ARH 341M. Contemporary Mexican Art.**

Survey of visual culture beginning in the 1950s and 1960s, with a focus on key artists, exhibition spaces, and critical debates from the last thirty years in Mexico in light of international aesthetic currents and shifting

political and economic conditions. Three lecture hours a week for one semester.

#### **ARH 341N. Other Modernities: Latin American Art.**

Development and sources of twentieth-century art in the Caribbean and Central and South America. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 341N, 361 (Topic: Other Modernities: Latin American Art), Latin American Studies 327 (Topic: Other Modernities: Latin American Art), Mexican American Studies 374 (Topic: Other Modernities: Latin American Art).

#### **ARH 341P. Contemporary Latin American Art.**

Same as Latin American Studies 327 (Topic 9). Development and sources of art in the Caribbean and Central and South America from the 1960s to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 341P, 361 (Topic: Contemporary Latin Amer Art), Latin American Studies 327 (Topic: Contemporary Latin Amer Art), 327 (Topic 9).

#### **ARH 341Q. Women in Latin American Art.**

Development and sources of Latin American Women Artists considering feminist, gender and queer theories Three lecture hours a week for one semester. Only one of the following may be counted: Art History 341Q, 361 (Topic: From Modern to Conceptual: Women Artists in Latin America), Women's and Gender Studies 340 (Topic: From Modern to Conceptual: Women Artists in Latin America).

#### **ARH 341R. Apertures: Film and Photography Through Greater Mexico.**

Exploration of the historical and aesthetic linkages and affinities between filmmakers and photographers working in greater Mexico, including prominent visitors and Americans of Mexican descent. Considers how Mexican culture is represented but also how borders between Mexico and the wider world—as well as among media—were blurred or brought into sharper focus by these exchanges. Three lecture hours a week for one semester. Art History 341R and 361 (Topic: Apertures: Film & Photo Mexico) may not both be counted.

#### **ARH 341S. Art Cinemas of the Americas.**

Same as Latin American Studies 327 (Topic 7). Examine art cinemas from the Spanish-speaking Americas from the 1950s to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 341S, 361 (Topic: Art Cinemas of the Americas), Latin American Studies 327 (Topic: Art Cinemas of the Americas), 327 (Topic 7).

#### **ARH 342J. Introduction to Women's and Gender Studies in the Fine Arts.**

An introduction to women's studies and gender studies in relation to visual, theatrical, and musical culture in the United States and Europe. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 342J, 359 (Topic: Intro to Women's and Gender Studies in the Fine Arts), Fine Arts 350 (Topic: Intro to Women's and Gender Studies in the Fine Arts), Women's and Gender Studies 345 (Topic: Intro to Women's and Gender Studies in the Fine Arts).

#### **ARH 344J. Twentieth-Century African American Art.**

Same as African and African Diaspora Studies 335K. A survey of visual art produced by people of African descent in the United States with an emphasis on the twentieth century and its sociohistorical framework. Changes in modes of expression, formal concerns, pictorial themes, and the impact of the Black Arts movement, feminism, and Afrocentrism on art are explored, as well as the relationship of the work of black artists to art from West and Central Africa and the visual traditions of European and Euro-American artists. Three lecture hours a week for one semester.

Only one of the following may be counted: African and African Diaspora Studies 335K, 374F (Topic 19), Art History 344J, 366N (Topic: 20th-Cen African American Art).

#### **ARH 344L. Art of the Harlem Renaissance.**

Same as African and African Diaspora Studies 335M. Examine the factors which gave rise to the Harlem Renaissance, with a particular emphasis on art and artists. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 344L, 374 (Topic: Harlem Renaissance), African and African Diaspora Studies 335M, 374F (Topic: Harlem Renaissance).

#### **ARH 345J. Contemporary Artists of the African Diaspora.**

Same as African and African Diaspora Studies 335J. Examines a wide range of artists, practicing in different parts of the world, who are part of the African diaspora via such factors as the Atlantic slave trade and various patterns of international migration. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335J, 374F (Topic 15), Art History 345J, 373D (Topic: Contemp Artist of Afr Diaspora), 374 (Topic: Contemp Artist of Afr Diaspora).

#### **ARH 345K. Contemporary British Artists of the African Diaspora.**

Same as African and African Diaspora Studies 335I. A look at a wide range of artists, practicing in Britain, who are part of the African diaspora via such factors as the Atlantic slave trade and various patterns of international migration. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335I, 374F (Topic 14), Art History 345K, 374 (Topic: Contemp Brit Artists Afr Diaspora).

#### **ARH 345L. Diaspora Visions.**

Same as African and African Diaspora Studies 335G and Women's and Gender Studies 340 (Topic 48). An exploration of border crossing by cultures and groups including Yorubas, Jews, Armenians, Tibetans, Hamish, Pakistanis, and Indians and the production of images by immigrants, exiles, and nomads in alien lands. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335G, 374F (Topic 13), Art History 345L, 373D (Topic: Diaspora Visions), 374 (Topic: Diaspora Vision), Women's and Gender Studies 340 (Topic 48).

#### **ARH 345M. Visual Arts of the Caribbean.**

Same as African and African Diaspora Studies 335F. A look at a wide range of artists from the countries of the Caribbean, including examples of cinema and reggae music packaging. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335F, 374F (Topic 12), Art History 345M, 373D (Topic: Visual Arts of the Caribbean), 374 (Topic: Visual Arts of the Caribbean).

#### **ARH 345N. Cinema of the African Diaspora.**

Examine work made in the past several decades by independent filmmakers from different parts of the world, including the United States, which speaks to the history, challenges, and multiple identities of people in the African Diaspora. Three lecture hours a week for one semester. Art History 345N and 373D (Topic: Cinema of African Diaspora) may not both be counted.

#### **ARH 346K. Introduction to African Art.**

Same as African and African Diaspora Studies 335E. Investigates the lives and works of several artists who have made substantial contributions to the definition, history, and interpretation of the visual arts. Three lecture hours a week for one semester. Only one of the

following may be counted: African and African Diaspora Studies 335E, 374F (Topic 11), Art History 346K, 373C (Topic: Introduction to African Art), 374 (Topic: Introduction to African Art).

#### **ARH 346L. Africana Women's Art.**

Same as African and African Diaspora Studies 335C and Women's and Gender Studies 340 (Topic 46). Analysis of the diverse modes of presentation, mediums, definitions, and influences of Africana women artists in the diaspora. Designed to use critical theory and art history found in oral and written literatures, music, films, and other formal and informal documents. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335C, 374F (Topic: Africana Women's Art), 374F (Topic 9), Art History 346L, 373C (Topic: Africana Women's Art), Women's and Gender Studies 340 (Topic: Africana Women's Art), 340 (Topic 46). Prerequisite: Upper-division standing.

#### **ARH 346M. Visual Cultures of Africa.**

Same as African and African Diaspora Studies 335D. Painting, textiles, ceramics, sculpture, performance, mixed media, photography, films, and the aesthetic ideas behind the production of African visual cultures from the perspectives of rituals, rites of passage, celebrations, initiations, documentations, and expressions. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335D, 374F (Topic 10), Art History 346M, 373C (Topic: Visual Cultures of Africa).

#### **ARH 347J. Preclassic Mesoamerican Art and Civilization.**

Introduction to the origins and earliest developments in Mesoamerican art, architecture, and civilization, with emphasis on the social context of art and visual culture in preclassic Mesoamerica. Three lecture hours a week for one semester.

#### **ARH 347K. Art and Archaeology of Ancient Peru.**

Same as Latin American Studies 327 (Topic 6). The growth of civilization in South America from the earliest decorated textiles, pottery, and ceremonial buildings to the imperial Inca style. Three lecture hours a week for one semester. Art History 347K and Latin American Studies 327 (Topic 6) may not both be counted.

#### **ARH 347L. Mesoamerican Art and Culture.**

Same as Latin American Studies 327 (Topic 3). Mesoamerican art, architecture, and its archaeological context, with emphasis on the social function of art and visual culture in ancient Mesoamerica up to the time of European contact. Three lecture hours a week for one semester. Art History 347L and Latin American Studies 327 (Topic 3) may not both be counted.

#### **ARH 347M. Maya Art and Architecture.**

Same as Latin American Studies 327 (Topic 5). Introduction to the artistic traditions of the ancient Maya, tracing their development up to the time of European contact. Students will examine various important themes of Maya culture including history, ritual, and cosmology as revealed in sculpture, hieroglyphs, painting, and architectural design. Three lecture hours a week for one semester. Art History 347M and Latin American Studies 327 (Topic 5) may not both be counted.

#### **ARH 347N. Aztec Art and Civilization.**

An introduction to the art, symbolism, and visual culture of the ancient Aztecs. Subjects include the representations of history and mythology in architecture, stone monuments, and pictorial manuscripts. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 347N, 370 (Topic: Aztec Art and Civilization), Latin American Studies 327 (Topic: Aztec Art and Civilization).

#### **ARH 347P. Mesoamerican Writing Systems.**

Examines the scripts of ancient Mesoamerica, focusing mostly on Maya and Aztec hieroglyphic writing. Subjects include methods of decipherment, the visual encoding of language in art and script, and the cultures of literacy in precolumbian Mesoamerica. Three lecture hours a week for one semester.

#### **ARH 347R. Architecture and Sculpture in the Maya World.**

Explore the ancient world of the Maya through the lens of architecture and sculpture. Three lecture hours a week for one semester. Art History 347R and 370 (Topic: Arch/Sculpture in Maya World) may not both be counted.

#### **ARH 348K. Formation of Indian Art, 1000 BCE to 1000 CE.**

Examines the artistic traditions of South Asia up to the fifth century C.E., with an emphasis on social and religious factors shaping its development. Three lecture hours a week for one semester.

#### **ARH 348L. Later Indian Art.**

Examines the development of artistic and architectural traditions in South Asia from the fifth through fourteenth centuries with an emphasis on their social and religious significance. Three lecture hours a week for one semester.

#### **ARH 348M. The Taj Mahal and the Diversity of Indian Art.**

Same as Religious Studies 341E. Examination of the period when Islamic dynasties controlled much of the subcontinent and how a unique mix of forms and cultural practices shaped the development of monuments such as the Taj Mahal. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 348M, 372 (Topic: The Taj Mahal and the Diversity of Indian Art), Asian Studies 372 (Topic: The Taj Mahal and the Diversity of Indian Art), Religious Studies 341 (Topic 9), 341E. Prerequisite: Upper-division standing.

#### **ARH 348N. Buddhist Art.**

Same as Asian Studies 374C and Religious Studies 341T. Explores the development of Buddhist art in South Asia, the land of its origin as well as its spread elsewhere. Focus on the question of "what is" Buddhist art. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 348N, 372 (Topic: Buddhist Art), Asian Studies 372 (Topic 24), 374C, Religious Studies 341 (Topic 8), 341T.

#### **ARH 348P. Art in the Himalayas.**

Examines developments in various Himalayan regions, such as Tibet and Nepal, by focusing on certain subjects and styles in order to comprehend the roles of art in shaping culture and society. Three semester hours a week for one semester.

#### **ARH 349K. Traditional Chinese Art and Culture.**

Examines Chinese art and culture from prehistory to the eighteenth century. Subjects include Chinese painting, calligraphy, sculpture, and architecture in their historical setting. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 349K, 372 (Topic: Traditional Chinese Art and Culture), 374 (Topic: Traditional Chinese Art and Culture), Asian Studies 372 (Topic: Traditional Chinese Art and Culture).

#### **ARH 349L. Contemporary Chinese Art.**

Examines Chinese art and visual culture from the early twentieth century to the present. Analyzes complex issues involving modern and contemporary art scenes in China through artworks, artists' lives, and sociopolitical changes in China during this period. Three lecture hours a week for one semester. Only one of the following may be counted: Art

History 349L, 372 (Topic: Contemporary Chinese Art), Asian Studies 372 (Topic: Contemporary Chinese Art), 372 (Topic 45).

**ARH 359. Topics in Feminism and Gender.**

An introduction to feminist and gender theories in relation to issues concerning visual representation. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 360L. Topics in the History of Photography.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 361. Topics in Latin American and Latinx Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 361L. Topics in Ancient Near Eastern Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 362. Topics in Greek and Roman Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 362R. Topics in the Art of Late Antiquity.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 363. Topics in Medieval Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 364. Topics in Renaissance Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 365. Topics in Baroque Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 366J. Topics in Nineteenth-Century Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 366N. Topics in Twentieth-Century Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**ARH 366P. Topics in Modernism.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 367. Topics in the Art of North America.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 370. Topics in Pre-Columbian Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 370J. Study in Guatemala.**

Art and architecture of Guatemala. The equivalent of three lecture hours a week for one semester. Taught in Guatemala. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

**Topic 1: Ancient Maya Writing and History.**

**Topic 2: Sacred Landscapes of the Precolumbian World.**

**Topic 3: Baroque Art and Architecture in Spanish America.**

**ARH 372. Topics in the Art of Asia.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Chinese Literati Art.** Same as Asian Studies 374E. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 372 (Topic: Chinese Literati Art), 372 (Topic 1), Asian Studies 361 (Topic: Chinese Literati Art), 372 (Topic 42), 374E. Additional prerequisite: Upper-division standing.

**ARH 373C. Topics in Africana Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 373D. Topics in Diaspora Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**ARH 373E. Topics in African American Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Black Art, Brown Art.** Same as African and African Diaspora Studies 335N and Mexican American Studies 323C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335N, 372E (Topic: Black Art, Brown Art), Art History 373E (Topic: Black Art, Brown Art), 373E (Topic 1), Mexican American Studies 323C, 374 (Topic: Black Art, Brown Art). Additional prerequisite: Upper-division standing.

**ARH 374. Special Topics in the History of Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 3: Colonial Encounter.**

**ARH 375. Theories and Methods in the History of Art.**

Restricted to art history majors. Examination of the theories and methods used by art historians and the changing nature of art historical inquiry. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Art History 321 with a grade of at least C, and consent of the adviser.

**ARH 376. Reading Tutorial in Art History Problems.**

Individual projects to be completed under faculty supervision. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: For majors in the Department of Art and Art History, six semester hours of upper-division art history, a grade point average of at least 3.00, and consent of instructor; for others, a grade point average of at least 3.00, and consent of instructor.

**ARH 379H. Thesis Course for Departmental Honors.**

Individual conference course in which student researches and writes a thesis. The equivalent of three lecture hours a week for one semester. Prerequisite: Admission to the Honors Program in Art History, and approval of the honors adviser.

## Graduate Courses

### ARH 381. Topics in Latin American and Latinx Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### ARH 381L. Topics in Ancient Near Eastern Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

**Topic 1: Visual Cultures in the Ancient Near East.** Examine scholarly methodologies for understanding how imagery encoded messages and how viewers developed strategies for making sense of them. Only one of the following may count: Art History 381L (Topic: Visual Culs In Anc Near East), 381L (Topic 1), Middle Eastern Studies 381 (Topic: Visual Culs In Anc Near East).

### ARH 382. Topics in Greek and Roman Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

**Topic 1: Parthenon Throughout the Ages.** Examine the products of ongoing preservation and restoration of the Parthenon, its history and contemporary relevance. Art History 382 (Topic: Parthenon Through The Ages) and 382 (Topic 1) may not both be counted.

**Topic 2: Seeing Gods.** Same as Religious Studies 387M (Topic 2). Examine textual and theoretical accounts of the religious phenomenon of epiphany across various belief systems. Only one of the following may be counted: Art History 382 (Topic: Seeing Gods), 382 (Topic 2), Religious Studies 387M (Topic: Seeing Gods), Religious Studies 387M (Topic 2).

**Topic 3: Pompeii and Ostia: Visual Representation and Acculturation.** Examine how scholars in the past and the present have used evidence of visual representation and material culture to understand human beings living in Pompeii and Ostia. Art History 382 (Topic: Pompeii/Ostia Vis Rep Accul) and 382 (Topic 3) may not both be counted.

**Topic 4: Art and Politics in Republican Rome.** Explore the art and architecture of Republican Rome circa 500-44 B.C. and its relationship with visual culture and politics of the time. Art History 382 (Topic: Art & Polit In Republican Rome) and 382 (Topic 4) may not both be counted.

**Topic 5: Construction, Deconstruction, Reconstruction in Ancient Rome.** Study Roman architecture from Republic to Empire periods. Explore evidence for different phases of ancient buildings' lives - from construction to restoration to demolition - with a view to determining their political significances. Art History 382 (Topic: Constr/Destr/Recon Anc Rome) and 382 (Topic 5) may not both be counted.

**Topic 6: Art of the Roman Dictatorship.** Examine public art and architecture created in Rome during the last decades of the Republic (circa 100-44 BCE). Art History 382 (Topic: Art of Roman Dictatorship) and 382 (Topic 6) may not both be counted.

### ARH 382R. Topics in the Art of Late Antiquity.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### ARH 383. Topics in Medieval Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### ARH 384. Topics in Renaissance Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

**Topic 1: Michelangelo and His World.** Examine the work of Michelangelo Buonarroti (1475-1564) in the context of his patrons and the history of the period in which he worked. Only one of the following may be counted: Art History 384 (Topic: Michelangelo), 384 (Topic 1), Italian Studies 382 (Topic: Michelangelo).

### ARH 385. Topics in Baroque Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### ARH 386G. Topics in Eighteenth-Century Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### ARH 386J. Topics in Nineteenth-Century Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### ARH 386N. Topics in Twentieth-Century Art.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### ARH 386P. Topics in Modernism.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 1: Art Criticism, Theory, and Contemporary Art.** Explore the language of art criticism and to investigate the historical origin of some of the terms that have become central to the discourse of contemporary art. Art History 386P (Topic: ART CRIT, THRY, AND CONTEM ART) and 386P (Topic 1) may not both be counted.

**Topic 2: Writing About Contemporary Art.** Study the special problems facing those who write about contemporary art, which does not already have an established historical record or a generally accepted canonical interpretation. Art History 386P (Topic: Writing Abt Contemp Art) and 386P (Topic 2) may not both be counted.

**Topic 3: Film Cultures of the 1960s.** Examine the formal, theoretical, and social circumstances of the integration of various film cultures and surrealism in Europe and the United States during the post-war period. Only one of the following may be counted: Art History 386P (Topic: Film Cultures of the 1960s), 386P (Topic 3), Women's and Gender Studies 393 (Topic: Film Cultures of the 1960s).

**Topic 4: Archives and the History of Everyday Life.** Examine an overview of the work of a variety of individuals who consider history, biography, and the study of archives through the lens of the ephemeral and lived experience. Explore the relationship between writing biography and autobiography, archives and archival research and the production of knowledge, and the impact these choices have on the writing of history. Art History 386P (Topic: Archives/Hist Everyday Life) and 386P (Topic 4) may not both be counted.

**Topic 5: Magazine as Archive.** Examine the magazine as archive and whether its temporal and material limit-terms constitute a viable frame for the writing of history. Only one of the following may be counted: Art History 386P (Topic: View Magazine, 1940-47), 386P

(Topic 5), Women's and Gender Studies 393 (Topic: View Magazine, 1940-47).

### **ARH 387. Topics in the Art of North America.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### **ARH 390. Topics in Pre-Columbian Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### **ARH 392. Topics in the Art of East Asia.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### **ARH 393C. Topics in Africana Art.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### **ARH 393D. Topics in Diaspora Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

**Topic 1: Visualizing Slavery.** Examine the work of modern and contemporary artists that touches on or explores the issue of slavery. Only one of the following may be counted: African and African Diaspora Studies 387D (Topic: Visualizing Slavery), American Studies 391 (Topic: Visualizing Slavery), Art History 393D (Topic: Visualizing Slavery), 393D (Topic 1), Women's and Gender Studies 393 (Topic: Visualizing Slavery).

### **ARH 393E. Topics in African American Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### **ARH 394. Special Topics in the History of Art.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

**Topic 2: Administration and Development of Visual Resources Collections.**

**Topic 3: Poststructuralist Methods in Art History.** Examine an overview of influential examples of poststructuralist theory and how such theory can be applied to interpretive issues in the visual arts.

Explore the writings of Barthes, Derrida, Lacan, Benjamin, and others. Only one of the following may be counted: Art History 386P (Topic: Poststructuralist Methods in ARH), 394 (Topic: Poststructuralist Methods in Art Hist), 394 (Topic 3).

**Topic 4: When Practice Encounters Theory.** Study situations in which the theoretical position that guides an interpretation comes into conflict with the nature of the technical practices of the artist whose work is being interpreted. Art History 394 (Topic: When Practice Encounters Theory) and 394 (Topic 4) may not both be counted.

**Topic 5: Visual Cultures in Cyberspace.** Examine transatlantic computational art systems as expressive practices for computing aesthetics and interconnectivity of gendered, racial, and sexualized bodies. Only one of the following may be counted: Art History 394 (Topic: Visual Cultures in Cyberspace), 394 (Topic 5), Women's and Gender Studies 393 (Topic: Visual Cultures in Cyberspace).

**Topic 6: Issues in Museum Studies.** Same as Art Education 383L. Survey major issues in the field of museum studies. Three lecture hours a week for one semester. Only one of the following may be counted: Art Education 383L, Art History 394 (Topic: Issues in Museum Studies), 394 (Topic 6). Additional prerequisite: Graduate standing and consent of the graduate adviser.

### **ARH 395. Art Historical Methods.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### **ARH 396. Advanced Reading Tutorial.**

Individual instruction arranged by the student. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### **ARH 196C, 396C. Reading Tutorial.**

Individual instruction arranged by the student. One hour instruction per week for each hour of credit earned. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **ARH 396K. Advanced Lecture Tutorial.**

Individual instruction arranged by the student. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **ARH 396L. Advanced Studies in the History of Latin American Art: Reading Tutorial.**

Conference course. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in art history and consent of the graduate adviser.

### **ARH 396P. Qualifying Examination Preparation.**

Individual instruction arranged by the student. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **ARH 397. Doctoral Colloquium.**

Conference course for students preparing for dissertation colloquium. Individual instruction arranged by the student. May not be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing, admission to the doctoral program in art history, and consent of instructor.

### **ARH 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in art history and consent of the graduate adviser; for 698B, Art History 698A.

### **ARH 398T. Supervised Teaching in Art History.**

Teaching under the close supervision of the course instructor for one semester; weekly group meetings with the instructor, individual consultations, and reports throughout the teaching period. Three lecture hours a week for one semester. Prerequisite: Graduate standing in art history, or graduate standing and appointment as a teaching assistant.

### **ARH 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# Arts and Entertainment Technologies Courses

## Arts and Entertainment Technologies: AET Lower-Division Courses

### AET 101. Arts and Entertainment Technologies Colloquium I.

Restricted to Arts and Entertainment Technologies majors. Guest artists, scientists, developers, and corporate leaders present on subjects applicable to arts and entertainment technologies. The equivalent of one lecture hour a week for one semester. Offered on the pass/fail basis only.

### AET 102C. Portfolio.

Design and creation of portfolio, resume and other professional development materials. The equivalent of one lecture hour a week for one semester. Offered on the letter-grade basis only.

### AET 103C. Entrepreneurial Creative.

Restricted to Arts and Entertainment Technologies majors. Introduction to the principles and functions of an independent, self-directed career in the creative industry. The equivalent of one lecture hour a week for one semester. Offered on the letter-grade basis only.

### AET 304. Foundations of Arts and Entertainment Technologies.

Broad overview of digital media technologies, software, and applications associated with the intersection of the arts and technology. Introduction to the core concepts of the three emphases of the Center for Arts and Entertainment Technologies: Music and Sound, New Performance Technologies, and Game and Mobile Media Applications. Also considers the cultural, philosophical, ethical, and practical aspects of entertainment technology. The equivalent of three lecture hours a week for one semester.

### AET 305. Foundations of Music Technology.

Restricted to Arts and Entertainment Technologies majors. Historical perspective of music technology supported by a hands-on focus on modern digital technologies that comprise the world of electronic music, including MIDI, the digital audio workstation, digital signal processing, virtual instruments, digital audio systems, recording, effects, and internet distribution. Three lecture hours a week for one semester, with studio hours as required. Only one of the following may be counted: Arts and Entertainment Technologies 305, Fine Arts 310 (Topic: Foundations of Digital Music and Sound), Music 319D. Prerequisite: Arts and Entertainment Technologies 304.

### AET 306. Foundations of Digital Imaging and Visualization.

Restricted to Arts and Entertainment Technologies' majors. An introduction to digital graphic art software and practices including aesthetics, design, production, and publishing. Three lecture hours a week for one semester, with studio hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 304.

### AET 308C. Music Technology and Culture.

Explore music technology and its social-cultural relationship through the examination of its historical origins and critical evaluation of the various kinds of music technologies that have emerged. Three lecture hours a week for one semester. Arts and Entertainment Technologies 308 and 308C may not both be counted. Offered on the letter-grade basis only.

### AET 309. Being Digital.

Reviews the essential ideas of digital devices and social networks. Provides a general background on computer devices today: computers,

hardware, software, the Internet, and information security. The equivalent of three lecture hours a week for one semester.

### AET 310. Foundations of Creative Coding.

A guide for expressing original ideas directly in computer code using the graphics language Processing. Examines the making of computer tools for implementing artistic visions. Explores the computer's role as an artist's medium in the context of major ideas in contemporary art. Three lecture hours a week for one semester, with studio hours as required.

### AET 110T, 310T. Topics in Innovative Design.

Exploration of innovative topics in design. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### AET 315. Foundations of Design and Visual Development.

An introduction to design process, formal design principles, visual storytelling, and concept ideation. Three lecture hours per week for one semester, with lab hours as required. Offered on the letter-grade basis only.

### AET 316C. Foundations of Projection, Lighting, And Interactivity.

Restricted to Arts and Entertainment Technologies majors. Foundations of lighting, projection and interactivity (PLAI), including entertainment lighting fixtures, show control and media servers. Three lecture hours per week for one semester, with lab hours as required. Arts and Entertainment Technologies 316 and 316C may not both be counted. Offered on the letter-grade basis only.

### AET 318C. Foundations of Video Game Development.

An introduction to the process of creating games from concept through publishing including aesthetics, design and production. Three lecture hours per week for one semester, with lab hours as required Arts and Entertainment Technologies 318 and 318C may not both be counted. Offered on the letter-grade basis only.

### AET 119, 219, 319. Topics in Arts and Entertainment Technologies.

For each semester hour of credit earned, the equivalent of one lecture hour per week for one semester. May be repeated for credit when the topics vary.

## Upper-Division Courses

### AET 320C. Contemporary Music Styles.

Explores the form, composition, production, arrangement and performance of a variety of contemporary styles of music. Focuses on the digital audio workstation and the use of instruments, both real and virtual, to compose in different genres. Three lecture hours a week for one semester, with studio hours as required. Arts and Entertainment Technologies 320 and 320C may not both be counted. Prerequisite: Arts and Entertainment Technologies 305 and 341D.

### AET 320D. Musical Acoustics.

Restricted to Arts and Entertainment Technologies majors. Explores the science of sound and how musical instruments work as well as principles of musical scales, hearing, architectural acoustics, and electronic music. Three lecture hours per week for one semester. Only one of the following may be counted: Arts and Entertainment Technologies 320D, 339 (Topic: Musical Acoustics), Mechanical Engineering 379M (Topic: Musical Acoustics), 379Q, Music 376J (Topic: Musical Acoustics), 379Q. Offered on the letter-grade basis only.

**AET 320E. Psychoacoustics.**

Restricted to Arts and Entertainment Technologies majors. A study of the properties of human hearing, perception and cognition of music and audio. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 305 and 320D.

**AET 320F. Immersive Audio.**

Restricted to Arts and Entertainment Technologies majors. Explore 3D and multi-channel sound with applications in games and live audio mixing. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 320E.

**AET 320G. Audio Coding I.**

Restricted to Arts and Entertainment Technologies majors. Creation and programming of audio and music software and algorithms in Max/MSP. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 305 and 320D.

**AET 320J. Music Information Retrieval.**

Restricted to Arts and Entertainment Technologies majors. Examination of the primary technologies used to retrieve perceptually-based music/sound information for audio signal identification and their applications in copyright protection. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 320E and 322G.

**AET 320K. Sound Spatialization.**

Restricted to Arts and Entertainment Technologies majors. Advanced study of sound localization including ambisonics, head-related transfer functions (hrtfs) and audio wave front design. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 320F and 322G.

**AET 320L. Generative Music.**

Restricted to Arts and Entertainment Technologies majors. Explores algorithmic music systems including procedural techniques, genetic algorithms and cellular automata. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 322G.

**AET 320M. Live Music Coding.**

Restricted to Arts and Entertainment Technologies majors. An exploration of techniques for live, real-time music programming and sound production in performance settings. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 322G.

**AET 320N. Theater Sound Design.**

Restricted to Arts and Entertainment Technologies majors. Sound design for theater productions including script analysis, music underscoring, SFX and cue-based playback software. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 320N and 339 (Topic: Theatre Sound Design) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 305.

**AET 321C. Audio Processing.**

Restricted to Arts and Entertainment Technologies majors. Explores the use of sound-shaping tools, convolution reverb, noise reduction, pitch and time editing to make precise corrections to audio files. Three lecture hours a week for one semester, with lab hours as required.

Arts and Entertainment Technologies 321C and 339 (Topic: Audio Processing) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 305.

**AET 321D. The Recording Studio.**

Restricted to Arts and Entertainment Technologies majors. Explores concepts and operations involved in a typical recording studio environment. Focuses on recording equipment and signal flow, recording session procedures, and microphone identification, usage and placement. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 321 and 321D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 321C and 320D.

**AET 321E. Mixing and Mastering.**

Restricted to Arts and Entertainment Technologies majors. Explores concepts and operations involved in audio mixing and mastering such as equalizing (EQ) and compression techniques, localization strategies, and final product mastering. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 321C and 320D.

**AET 321F. Film Sound Design.**

Restricted to Arts and Entertainment Technologies majors. Explore post-production concepts for preparing sound in relation to picture including sound effects, foley, voiceovers and sonic environments. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 321F and 339 (Topic: Audio for Visual Media) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 305.

**AET 321G. Sound System Design.**

Restricted to Arts and Entertainment Technologies majors. Live audio system design including equipment, acoustic prediction software, system wiring and networking, control software and multimedia integration. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 305 and 320D.

**AET 322C. Sonic Branding.**

Restricted to Arts and Entertainment Technologies majors. Examination of the relationship between sound and brand identity as it relates to advertising, music logos, sonic identities. Three lecture hours a week for one semester, with studio hours as required. Arts and Entertainment Technologies 322 and 322C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technology 321C and 341C.

**AET 322D. Song Writing.**

Restricted to Arts and Entertainment Technologies majors. The process, workflow and techniques of songwriting with a focus on lyric writing, text-setting, chord progressions and performance styles. Three lecture hours per week for one semester. Arts and Entertainment Technologies 322D and 339 (Topic: Song Writing) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 305 and 341D.

**AET 322G. Audio Coding II.**

Restricted to Arts and Entertainment Technologies majors. Advanced algorithmic programming in audio software with an emphasis on real-time systems. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 320G.

### **AET 323C. Screen Scoring.**

Restricted to Arts and Entertainment Technologies majors. Create original music tracks for screen-based media and games. Three lecture hours per week for one semester. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 341C and 341D.

### **AET 323D. Interactive Music.**

Restricted to Arts and Entertainment Technologies majors. Create real-time interactive music using Ableton Live and Musical Instrument Digital Interface (MIDI) controllers. Three lecture hours per week for one semester, with lab hours as required. Arts and Entertainment Technologies 323D and 339 (Topic: Interactive Music) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 341C and 341D.

### **AET 323E. Video Game Audio I.**

Restricted to Arts and Entertainment Technologies majors. Practical sound and music applications exploring techniques specific to developing game audio. Three lecture hours per week for one semester, with lab hours as required. Arts and Entertainment Technologies 323E and 339 (Topic: Game Audio) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 321C and 341C.

### **AET 323F. Video Game Audio II.**

Restricted to Arts and Entertainment Technologies majors. An in-depth exploration of game audio software systems (FMOD, WWISE) and their connection to the Unity3d game engine. Three lecture hours per week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 323E.

### **AET 324C. Introduction to Drawing.**

Restricted to Arts and Entertainment Technologies majors. An introduction to the foundations of traditional and digital drawing. Three lecture hours per week for one semester, with lab hours as required. Arts and Entertainment Technologies 319 (Topic: Intro to Drawing) and 324C may not both be counted. Offered on the letter-grade basis only.

### **AET 324D. Principles of Animation.**

Restricted to Arts and Entertainment Technologies majors. An introduction to the principles of animation for 2D and 3D graphics. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306.

### **AET 324E. Concepts of Visual Style.**

Restricted to Arts and Entertainment Technologies majors. An introduction to concept art and pre-visualization techniques. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 324E and 339 (Topic: Concepts of Visual Style) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306 and 324C.

### **AET 324F. Videography.**

Restricted to Arts and Entertainment Technologies majors. An introduction to mobile and smart device video capture, storytelling, and editing. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Art and Entertainment Technologies 306.

### **AET 324G. Visual Coding.**

Restricted to Arts and Entertainment Technologies majors. An introduction to advanced visual coding for performance and production. Three lecture hours a week for one semester, with lab hours as

required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306.

### **AET 324J. Visual Storytelling.**

Restricted to Arts and Entertainment Technologies majors. An introduction to digital visual storytelling. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 324C.

### **AET 324K. Web Design and Interaction.**

Restricted to Arts and Entertainment Technologies majors. An introduction to HTML5, CSS3, and jQuery web design and interaction. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306.

### **AET 124P, 224P, 324P. Advanced Production Laboratory.**

Same as Theatre and Dance 124P. Same as Theatre and Dance 224P. Same as Theatre and Dance 324P. Restricted to theatre and dance and arts and entertainment technologies majors. For each semester hour of credit earned, one lecture hour a week for one semester, with additional laboratory hours to be arranged. Theatre and Dance 124P, 224P, 324P and Arts and Entertainment Technologies 124P, 224P, 324P may not both be counted. May be repeated for credit. Prerequisite: For Theatre and Dance majors, Theatre and Dance 314P or consent of instructor; For Arts and Entertainment Technologies majors, Arts and Entertainment Technologies 316C.

### **AET 325C. Introduction to 2D Animation.**

Restricted to Arts and Entertainment Technologies majors. An introduction to 2D animation, visualization, production techniques, and practice. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 325 and 325C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306.

### **AET 325D. Advanced 2D Animation.**

Restricted to Arts and Entertainment Technologies majors. Extended exploration into advanced 2D animation techniques and practices. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 325C.

### **AET 325E. Motion Graphics.**

Restricted to Arts and Entertainment Technologies majors. An introduction to motion graphics, compositing, and visual effects for games and previsualization. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 325C, and 326 or 326C.

### **AET 325F. Advanced Videography.**

Restricted to Arts and Entertainment Technologies majors. Extended exploration into mobile and smart device capture, video storytelling, and video editing. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 324F.

### **AET 325G. Installation.**

Restricted to Arts and Entertainment Technologies majors. An introduction to traditional and digital installation techniques for gallery and venue presentation. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 324C and 325C.

**AET 325J. User Experience/User Interface Visualization.**

Restricted to Arts and Entertainment Technologies majors. An introduction to user experience (UX) and user interface (UI) visualization and production. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 324K.

**AET 325K. Concept Art.**

Restricted to Arts and Entertainment Technologies majors. An introduction to creating professional concept art for games and previsualization. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 324C and 325C.

**AET 325L. Content Streaming Strategies.**

Restricted to Arts and Entertainment Technologies majors. An introduction to video and content streaming for web and video production. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 324F and 324K.

**AET 326. Digital Production Art 3-D.**

Basic principles of three-dimensional digital modeling and animation production, including modeling and texturing, basic character animation, project conception through digital production methodology, and technical language used in industry. Three lecture hours a week for one semester, with studio hours as required. Arts and Entertainment Technologies 326 and 339 (Topic: Digital Production Art 3-D) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306.

**AET 326C. 3D Modeling and Texturing.**

Restricted to Arts and Entertainment Technologies majors. An introduction to 3D modeling and texturing techniques used in game development and visualization. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306.

**AET 326D. 3D Materials And Lighting.**

Restricted to Arts and Entertainment Technologies majors. An introduction to surfacing 3D game models using state of the art workflows and tools. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306.

**AET 326E. 3D Animation and Rigging.**

Restricted to Arts and Entertainment Technologies majors. An introduction to 3D animation techniques and rigging systems. Three lecture hours a week for one semester, with lab hours as required. Only one of the following may be counted: Arts and Entertainment Technologies 326E, 328 and 339 (Topic: Animation and Rigging). Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 326 or 326C.

**AET 326F. Digital Sculpting.**

Restricted to Arts and Entertainment Technologies majors. Principles of 3D digital sculpting for games and visualization. Three lecture hours a week for one semester, with lab hours as required. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306.

**AET 326G. Realtime VFX.**

Restricted to Arts and Entertainment Technologies majors. An introduction to creating visual effects for games and realtime engines. Three lecture hours a week for one semester, with lab hours as

required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306.

**AET 326J. Realtime Animation Techniques.**

Restricted to Arts and Entertainment Technologies majors. An introduction to animation principles and techniques for creating games and realtime-ready animated systems. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306.

**AET 327. Advanced 3-D Modeling.**

Restricted to Arts and Entertainment Technologies majors. Continued exploration of methods and procedures used in the professional production of 3-D modeling, animation, and visual effects, including advanced modeling techniques, advanced surfacing techniques, specularly, sequenced mapping, and 3-D digital printing. Three lecture hours a week for one semester, with studio hours as required. Prerequisite: Arts and Entertainment Technologies 326 or 326C.

**AET 327C. Advanced Motion Graphics.**

Restricted to Arts and Entertainment Technologies majors. Extended exploration into motion graphics, compositing, and visual effects of games and previsualization. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 325C, 325E, and 326 or 326C.

**AET 327D. Advanced Imaging and Visualization.**

Restricted to Arts and Entertainment Technologies majors. Extended exploration into advanced graphic art software and production techniques. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 325C and 326 or 326C.

**AET 327E. New Media.**

Restricted to Arts and Entertainment Technologies majors. An introduction to new media studies and techniques for previsualization and production. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

**AET 329C. Media Creation for Live Performance.**

Restricted to Arts and Entertainment Technologies majors. Introduction to the production and integration of different kinds of media into live performance environments. A basic knowledge of Adobe Photoshop and Adobe After Effects is required. Three lecture hours a week for one semester, with lab hours as required. Only one of the following may be counted: Arts and Entertainment Technologies 329, 329C, Theatre and Dance 354T (Topic: Media Creation for Live Perf), 354T (Topic 26). Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C.

**AET 329D. Projection, Lighting, and Interactivity Portfolio.**

Restricted to Arts and Entertainment Technologies majors. Investigate how work in Projection, Lighting, and Interactivity (PLAI) relates to careers and how to best prepare for them. Subjects include business plans, business entities, creative entrepreneurship, CVs, resumes, web presence and job interviews, specifically in the field of live entertainment and digital experience. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 329D and 339 (Topic: PLAI PORTFOLIO) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C.

**AET 329E. Design Skills: Lighting.**

Restricted to Arts and Entertainment Technologies majors. An introduction to the field of lighting design. Explore different design methodologies to create a lighting design for live performances. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 329E and Theatre and Dance 354T (Topic 11) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C.

**AET 329F. Advanced Topics in Projection, Lighting, and Interactivity.**

Restricted to Arts and Entertainment Technologies majors. In-depth investigation of live entertainment technology, including topics such as advanced media server programming, advanced lighting applications, and advanced 3D projection mapping. Six laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C.

**AET 329G. Technical Drafting for the Entertainment Industry.**

Restricted to Arts and Entertainment Technologies majors. Designed to teach the student in 2D technical drafting of lighting and projection installations with the entertainment industry standard software Vectorworks. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C.

**AET 329J. Digital Fabrication.**

Restricted to Arts and Entertainment Technologies majors. Explores common and emerging digital fabrication technologies for artists and designers. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 329J and 339 (Topic: Digital Fabrication) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C.

**AET 329K. 3D Motion Graphics.**

Restricted to Arts and Entertainment Technologies majors. Study of 3D motion graphics techniques that are common in live event environments. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C.

**AET 130T, 330T. Topics in Innovative Design.**

Exploration of innovative topics in design. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

**AET 331. Computer Music Programming I.**

Concepts and principals of programming MIDI and audio signals using Max/MSP, MIDI, and audio IO systems, design and organization of Max/MSP programs, algorithms, and techniques to manipulate data and sound. Three lecture hours a week for one semester, with studio hours as required. Arts and Entertainment Technologies 331 and Music 329J may not both be counted. Prerequisite: Arts and Entertainment Technologies 305.

**AET 332. Computer Music Programming II.**

Exploration of algorithmic sound processing, signal processing techniques including filters, FFT, convolution, sound analysis/re-synthesis using Max/MSP. Three lecture hours a week for one semester, with studio hours as required. Arts and Entertainment Technologies 332 and Music 329M may not both be counted. Prerequisite: Arts and Entertainment Technologies 305.

**AET 133, 333. Topics in Video Game Development.**

Restricted to arts and entertainment technologies majors. Topics in video game development. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 310 and 318C.

**AET 333D. Video Game Production.**

Restricted to Arts and Entertainment Technologies majors. Explores the creation and execution of plans and roadmaps to strategize how game development is executed, organized, scheduled, budgeted, and managed. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

**AET 333E. History of Video Game Design.**

Restricted to Arts and Entertainment Technologies majors. Introduction to historical approaches to video game design. Includes video game histories and archives, critical analysis of design, game development and contemporary social issues in gaming. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 333E and 339 (Topic: History of Game Design) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 310 and 318C.

**AET 333F. Video Game Design Documents.**

Restricted to Arts and Entertainment Technologies majors. Construct informational and instructional documentation across a number of communication approaches for game design, art design, and technical direction. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 310 and 318C.

**AET 333G. Video Game Publishing.**

Restricted to Arts and Entertainment Technologies majors. Examines plans, strategies, and models for bringing a video game to market including audience retention and community management. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 310 and 318C.

**AET 333K. Video Game Prototyping.**

Explore rapid prototyping techniques for video game art and design using ideation, storyboarding, pitching, prototyping, testing, and documentation. Three lecture hours a week for one semester, with lab hours as required. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 304 and 310, and two of the following: Arts and Entertainment Technologies 305, 306, 316C, 315, or 318C.

**AET 334C. Level Design.**

Restricted to Arts and Entertainment Technologies majors. A practical examination of the creation of playable levels through planning, iteration, play testing, and documentation. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 334C and 339 (Topic: Level Design) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 310 and 318C.

**AET 334E. Video Game Art Pipeline.**

Restricted to Arts and Entertainment Technologies majors. An introduction to creating and working with game ready assets in 2D and 3D. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 334E and 339 (Topic: Game Art Pipeline) may not both be counted. Offered on the letter-grade

basis only. Prerequisite: Arts and Entertainment Technologies 310 and 318C.

### **AET 334F. Video Game Scripting I.**

Restricted to Arts and Entertainment Technologies majors. Introduction to scripting interactive content for games using an industry-standard scripting language and game engine. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 310 and 318C.

### **AET 334G. Technical Art I.**

Restricted to Arts and Entertainment Technologies majors. Focuses on the technical aspects of game content creation. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 334G and 339 (Topic: Technical Art I) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

### **AET 334J. Multiplayer Video Game Design.**

Restricted to Arts and Entertainment Technologies majors. Examination of the design and technical requirements for developing multiplayer games in different genres. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

### **AET 134L, 334L. User Interface/User Experience for Video Games.**

Restricted to Arts and Entertainment Technologies majors. An introduction to user interface (UI) and user experience (UX) design for video games. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 310 and 318C.

### **AET 334M. Video Game Systems Design.**

Restricted to Arts and Entertainment Technologies majors. Create and apply play systems which establish the framework for user experience (UX) and level design. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 334M and 339 (Topic: Game Systems Design) may not both be counted. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

### **AET 334N. Interactive Storytelling.**

Restricted to Arts and Entertainment Technologies majors. Apply cross-disciplinary methods to create immersive narratives for interactive experiences. Three lecture hours a week for one semester, with lab hours as required. Only one of the following may be counted: Arts and Entertainment Technologies 334D, 334N, 339 (Topic: Narrative Design for Games). Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 310 and 318C.

### **AET 335D. Realtime Visualization.**

Restricted to Arts and Entertainment Technologies majors. An introduction to using game engines and realtime graphics systems for architectural, automotive, and other types of product visualization. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 306.

### **AET 335F. Video Game Scripting II.**

Restricted to Arts and Entertainment Technologies majors. Advanced scripting of interactive content for video games using an industry-standard scripting language and game engine. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-

grade basis only. Prerequisite: Arts and Entertainment Technologies 334F.

### **AET 335G. Technical Art II.**

Restricted to Arts and Entertainment Technologies majors. Advanced technical art projects for games. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 334G.

### **AET 135J, 335J. Live Video Game Design.**

Restricted to Arts and Entertainment Technologies majors. An introduction to design methods for video games as a service and persistent multiplayer video game worlds. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

### **AET 335K. Virtual Reality for Video Games.**

Restricted to Arts and Entertainment Technologies majors. Explores design and creation of virtual reality (VR) content for games, and deploying and testing on VR hardware. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 335K and 339 (Topic: Virtual Reality for Games) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

### **AET 335L. Novel Hardware.**

Restricted to Arts and Entertainment Technologies majors. Study new and emerging technology as they relate to entertainment technology as a broader field. Three lecture hours a week for one semester, with lab hours as required. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

### **AET 335P. Video Game Portfolio.**

Restricted to Arts and Entertainment Technologies majors. Explore practices in presenting work in a professional manner by following industry expectations and needs. Develop interviewing and job-seeking skills for the video games industry. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

### **AET 336C. Video Game History and Culture.**

Analyze the history of video games from their origins in computer labs, to their surge in popularity that has significantly impacted modern society. Examine the evolution of video games, their influences on culture and laws, controversies in gender politics and minority representation, and how the medium developed both commercially and as a form of artistic expression. Three lecture hours a week for one semester.

### **AET 337. Writing for Interactive Games.**

Exploration of game creation as a multi-threaded narrative story. Students create, write, edit, and refine game stories and game dialogue and build small game scenarios using a variety of game design software platforms. Three lecture hours a week for one semester.

### **AET 139, 239, 339, 439. Advanced Topics in Arts and Entertainment Technologies.**

Advanced topics in arts and entertainment technologies. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary.

### **AET 341C. Virtual Instruments.**

Restricted to Arts and Entertainment Technologies majors. An introduction to the concepts and current trends of virtual instruments

to produce, arrange and orchestrate musical ideas in a variety of contemporary musical settings. Three lecture hours per week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 305.

#### **AET 341D. Digital Musicianship.**

Restricted to Arts and Entertainment Technologies majors. Exploration of Digital Audio Workstation-based music theory that reinforces the theoretical concepts of popular music styles through hands-on practice. Three lecture hours per week for one semester, with lab hours as required. Arts and Entertainment Technologies 319 (Topic: Digital Musicianship I) and 341D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 305.

#### **AET 344D. 3D Previsualization for Live Entertainment.**

Restricted to Arts and Entertainment Technologies majors. Instructs students on how to bring an idea from concept to fully rendered pitch-ready environment by utilizing 2D and 3D technical drafting tools in Vectorworks, and a lighting visualizer. Three lecture hours a week for one semester, with lab hours as required. Only one of the following may be counted: Arts and Entertainment Technologies 344, 344C, or 344D. Offered on the letter-grade basis only.

#### **AET 344E. Design Skills: Virtual Worlds.**

Restricted to Arts and Entertainment Technologies majors. An introduction to the design process and design methodologies for virtual digital environments. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 344E and 345 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C and 326C; consent of instructor.

#### **AET 344F. Design Skills: Projection.**

Restricted to Arts and Entertainment Technologies majors. Introduction to the creative and technical design process in the field of projection design for live performances. Three lecture hours a week for one semester, with lab hours as required. Only one of the following may be counted: Arts and Entertainment Technologies 344F, 347 and Theatre and Dance 354T (Topic 33). Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C.

#### **AET 344G. Open Source Graphics and 3D Imagery.**

Restricted to Arts and Entertainment Technologies majors. Study and targeted instruction of common open-source 3D animation and image manipulation software. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C and 326C.

#### **AET 345E. Design Skills: Digital Experiences.**

Restricted to Arts and Entertainment Technologies majors. An introduction to the field of experience design. Explore different design methodologies to create a digital experience. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C and 345F; and consent of instructor.

#### **AET 345F. Visual Programming for Media Artists.**

Restricted to Arts and Entertainment Technologies majors. Introduction to node-based creative development using the visual real-time environment Touchdesigner (with internal python). Three lecture hours a week for one semester, with lab hours as required. Only one of the following may be counted: Arts and Entertainment Technologies 345F, 362, 363, or 363C. Offered on the letter-grade basis only. Prerequisite:

Arts and Entertainment Technologies 310 and 316C; and consent of instructor.

#### **AET 345G. Responsive Environments.**

Restricted to Arts and Entertainment Technologies majors. Study the intersection between user engagement and content manipulation with insight into creating large, room-scale interactive experiences. Three lecture hours a week for one semester, with lab hours as required. Arts and Entertainment Technologies 345G and 349 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 345F and 361C; and consent of instructor.

#### **AET 346C. Video Game Modding.**

Restricted to Arts and Entertainment Technologies majors. Focus on modifying existing video games to experiment with gameplay ideas and create unique play experiences. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

#### **AET 346F. Video Game Design Challenges.**

Restricted to Arts and Entertainment Technologies majors. Focuses on the creation of unique play experiences under extreme constraints. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

#### **AET 346J. Experimental Gameplay Workshop.**

Restricted to Arts and Entertainment Technologies majors. An exploration of interactive systems and unique play experiences. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

#### **AET 347D. Generative Media.**

Restricted to Arts and Entertainment Technologies majors. Provides the foundations and targeted instruction for students wanting to expand their research into the creation and generation of real-time visuals for live events with personalized interactive systems and video jockey (VJ) software. Three lecture hours a week for one semester, with lab hours as required. Only one of the following may be counted: Arts and Entertainment Technologies 347D, 362, and 362C. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 345F.

#### **AET 347E. Advanced Generative Media.**

Restricted to Arts and Entertainment Technologies majors. Explore the theory, design and implementation of code-based generative media known as shaders. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 347D.

#### **AET 348. Concert and Event Lighting.**

Explore methodologies utilized in live event lighting. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Consent of instructor; Arts and Entertainment Technologies 348C.

#### **AET 348C. Live Event Engineering.**

Restricted to Arts and Entertainment Technologies majors. Study the integration and interoperability of playback and control systems commonly utilized in live entertainment environments. Three lecture hours a week for one semester, with lab hours as required. Only one of the following may be counted: Arts and Entertainment Technologies

348C, 360 or 360C. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 316C.

#### **AET 348E. Design Skills: Themed Entertainment.**

Restricted to Arts and Entertainment Technologies majors. Explore the design process for theme parks. An in-depth look into the technology and installation methods utilized throughout theme parks. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Consent of instructor; Arts and Entertainment Technologies 348C.

#### **AET 348F. Advanced System Design.**

Restricted to Arts and Entertainment Technologies majors. A comprehensive study and investigation of custom media and playback systems for fixed installations and specialized multimedia projects. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 348C; consent of instructor.

#### **AET 348G. Media Design and Technology.**

Restricted to Arts and Entertainment Technologies majors. Investigate design challenges in-depth, in the field of Media and Projection Design. Three lecture hours a week for one semester, with lab hours as required. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 348C and 344F; consent of instructor.

#### **AET 348J. Studio and Broadcast Lighting.**

Restricted to Arts and Entertainment Technologies majors. Explore lighting techniques, methodologies and fixtures common in studio and broadcasting environments. An in-depth look into the technology and installation utilized in TV studios and live event broadcast. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 348C; consent of instructor.

#### **AET 348K. 3D Projection Mapping.**

Restricted to Arts and Entertainment Technologies majors. Explore common 3D mapping techniques and applications that include architectural mapping, dome projection and Cave automatic virtual environments (CAVE) projection. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 348C; consent of instructor.

#### **AET 348L. Advanced System Engineering.**

Restricted to Arts and Entertainment Technologies majors. Study common signals (digital and analogue), data communication protocols, synchronization, show control as well as layout and contingency considerations for professional entertainment systems. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 329G and 348C.

#### **AET 348M. Live Video Production.**

Restricted to Arts and Entertainment Technologies majors. Examine the technology and production workflow in live video broadcasting, exploring the technology and installations utilized in TV studios and live event broadcasts. Three lecture hours a week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Consent of instructor; Arts and Entertainment Technologies 348C.

#### **AET 350. Computer Music Project.**

Project in advanced sound processing and synthesis and audio-visual systems. Hours to be arranged. May be repeated for credit. Prerequisite: Consent of instructor.

#### **AET 351. Live Audio Mixing.**

Restricted to Arts and Entertainment Technologies majors. Project in live audio for concerts, performances, theatre, or other productions. Includes setup, engineering, live-capture, and mixing of live productions in the field. Three lecture hours per week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 305 and 320D.

#### **AET 351C. Audio Production Lab.**

Restricted to Arts and Entertainment Technologies majors. Individual or team projects in audio production for live performance. Three lecture hours per week for one semester, with lab hours and performance participation as required. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

#### **AET 351D. Collaborative Improvisation Lab.**

Restricted to Arts and Entertainment Technologies majors. Creative projects involving multiple computer-based performance systems such as laptop and mixed audio ensembles. Three lecture hours per week for one semester, with lab hours and performance participation as required. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

#### **AET 351E. Do It Yourself Synthesizer Lab.**

Restricted to Arts and Entertainment Technologies majors. Projects to design and build microprocessor-based synthesizers and special effects (SFX) components and systems. Three lecture hours per week for one semester, with lab hours and performance participation as required. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

#### **AET 351F. Music Performance Lab.**

Restricted to Arts and Entertainment Technologies majors. A performance-based ensemble class that focuses on the basics of live music performance practice and the development of musician identity. Three lecture hours per week for one semester, with lab hours as required. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

#### **AET 351G. Visualization for Music Performance.**

Restricted to Arts and Entertainment Technologies majors. Creation of visual content to accompany the live performance experience. Three lecture hours per week for one semester, with lab hours as required. Arts and Entertainment Technologies 342 and 351G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

#### **AET 352. Sound Design Project.**

Project developing and creating a complete sound design project for film, video, or games. Hours to be arranged.

#### **AET 153, 353. Advanced Topics in Video Game Development.**

Restricted to Arts and Entertainment Technologies majors. Advanced topics in game development. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Arts and Entertainment Technologies 334E, 334F, and 334C or 334K.

#### **AET 361C. Physical Computing.**

Restricted to Arts and Entertainment Technologies majors. Introduces concepts and methods of physical computing, including the creation, building, and programming of small devices and the integration of external devices and objects. Three lecture hours a week for

one semester. Only one of the following may be counted: Arts and Entertainment Technologies 360, 361, 361C. Prerequisite: Arts and Entertainment Technologies 316 (or 317).

### **AET 365. Collaborative Installation Design.**

Facilitates collaborative design to realize an installation that combines visual processing, projection, sound, light, human interaction, and live performance. Hours to be arranged. Prerequisite: Arts and Entertainment Technologies 316 (or 317).

### **AET 367. The Entrepreneurial Artist.**

Same as Fine Arts 369. Exploration of new modes of online and social arts marketing and self promotion. Use of established models to create materials and prototype marketing resources. Three lecture hours a week for one semester. Only one of the following may be counted: Arts and Entertainment Technologies 367, Fine Arts 360 (Topic: The Entrepreneurial Artist), Fine Arts 369. Offered on the letter-grade basis only.

### **AET 368. Internship I.**

Internship with an external company or institution, supervised by arts and entertainment technologies faculty. Requires completion of 150 hours of satisfactory on-site work. Hours to be arranged. Prerequisite: Sophomore standing, a University grade point average of at least 2.50, and consent of instructor.

### **AET 369. Internship II.**

Internship with an external company or institution, supervised by arts and entertainment technologies faculty. Requires completion of 150 hours of satisfactory on-site work. Hours to be arranged. Prerequisite: Sophomore standing, a University grade point average of at least 2.50, and consent of instructor.

### **AET 170. Research Methods Proseminar.**

Explore research methods and the preparation of a thesis topic and senior thesis proposal. The equivalent of one lecture hour a week for one semester.

### **AET 372. Senior Design Projects I.**

Creation of a project within a team, with the guidance and advice of faculty members. Industry and faculty members can sponsor these projects. Hours to be arranged. Prerequisite: Upper-division standing.

### **AET 373. Senior Design Projects II.**

Continuation of a project within a team, with the guidance and advice of faculty members. Industry and faculty members can sponsor these projects. Hours to be arranged. Prerequisite: Upper-division standing.

### **AET 374. Independent Study.**

Independent study or research in arts and entertainment technologies. Hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing, a grade point of average of at least 3.00, consent of instructor, and consent of the director of the Center for Arts and Entertainment Technologies.

### **AET 376. Game Capstone: 2-D.**

Group project developing a working 2-D game. Hours to be arranged. Prerequisite: Upper-division standing and consent of instructor based on portfolio submission.

### **AET 377. Game Capstone: 3-D.**

Group project developing a working 3-D game. Hours to be arranged. Prerequisite: Upper-division standing and consent of instructor based on portfolio submission.

### **AET 378. Senior Thesis I.**

Large scale senior project. Hours to be arranged. Prerequisite: Upper-division standing and consent of instructor based on thesis proposal.

### **AET 378H. Honors Senior Thesis.**

Participate in a large scale senior project. The equivalent of four-and-one-half laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Arts and Entertainment Technologies 170, and consent of the Arts and Entertainment Technologies Honors Coordinator.

### **AET 379. Senior Thesis II.**

Continuation of large scale senior project in Arts and Entertainment Technologies 378. Hours to be arranged. Prerequisite: Upper-division standing and consent of instructor based on thesis proposal.

## **Graduate Courses**

### **Professional Courses**

# **Asian American Studies Courses**

## **Asian American Studies: AAS**

### **Lower-Division Courses**

#### **AAS 301. Introduction to Asian American Studies.**

Same as American Studies 315 (Topic 1). Introduces the interdisciplinary study of Asian immigrants and Asian Americans in the United States. Explores key concepts, including immigration history, identity and community formation, cultural representation, and the intersections of race, class, gender, and sexuality. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Introduction to Asian American Studies), 315 (Topic 1), Asian American Studies 301, Sociology 308 (Topic: Introduction to Asian American Studies).

#### **AAS 302. Immigration and Ethnicity.**

Same as History 317L (Topic 18) and Mexican American Studies 316C. Examine the changing population of the United States from colonial times to present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 302, 310 (Topic: Immigration and Ethnicity), History 317L (Topic: Immigration and Ethnicity), 317L (Topic 18), Mexican American Studies 316C, 319 (Topic: Immigration and Ethnicity).

#### **AAS 310. Introductory Topics in Asian American Studies.**

An introduction to Asian American studies through a variety of disciplines. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

##### **Topic 1: Psychological Perspectives on Asian American Identity.**

Examines the unique culturally-influenced psychologies of various Asian American groups, including such concepts as identity formation, enculturation, assimilation and resistance, and racial and psychological normativity. Only one of the following may be counted: American Studies 315 (Topic: Psychological Perspectives on Asian American Identity), Asian American Studies 310 (Topic: Psychological Perspectives on Asian American Identity), 310 (Topic 1).

**Topic 2: Race, Politics, and Identity in Asian America.** Same as Government 314 (Topic 7). An introduction to Asian American politics.

Subjects include the American political process, and the historic and contemporary role of Asian Americans within that process. Only one of the following may be counted: Asian American Studies 310 (Topic: Race, Identity, and Politics in Asian America), 310 (Topic 2),

Government 314 (Topic: Race, Identity and Politics in Asian America), 314 (Topic 7).

**Topic 3: Mixed Race Identities.** Same as American Studies 315 (Topic 2). Analyzes the historical and contemporary significance of issues of "race" and "mixing" in a North American context. Subjects include the situation of "mixed race" people throughout United States history; historical policies that have shaped racial formation in the United States; comparative conceptions of "mixed" people transnationally; and racial, ethnic, and cultural identity. Only one of the following may be counted: American Studies 315 (Topic: Mixed Race and the Media), 315 (Topic 2), Asian American Studies 310 (Topic: Mixed Race and the Media), 310 (Topic 3).

**Topic 4: Asian American Creative Arts.** Issues and identities shaped by issues of race, ethnicity, gender, immigration status, and family dynamics. These subjects are explored through production of literary, artistic, performance, or other creative projects. Only one of the following may be counted: American Studies 315 (Topic: Asian American Theatre and Dance), Asian American Studies 310 (Topic: Asian American Theatre and Dance), 310 (Topic 4), Theatre and Dance 311T (Topic: Asian American Theatre and Dance).

**Topic 5: Race, Immigration, and Family.** Same as American Studies 315 (Topic 3) and Women's and Gender Studies 301 (Topic 24). Introduction to family systems in the United States in a post-WWII framework with a central focus on Asian Americans. Students will investigate how gender, race, and ethnicity intersect and inform our understanding of the institution of the family. Only one of the following may be counted: American Studies 315 (Topic: Alternative Family Systems), 315 (Topic 3), Asian American Studies 310 (Topic: Alternative Family Systems), 310 (Topic 5), Women's and Gender Studies 301 (Topic: Alternative Family Systems), 301 (Topic 24).

**Topic 6: Asian American Film History.** Same as American Studies 315 (Topic 7). Only one of the following may be counted: American Studies 315 (Topic: Asian American Film History), American Studies 315 (Topic 7), Asian American Studies 310 (Topic: Asian American Film History), Asian American Studies 310 (Topic 6), Radio-Television-Film 301N (Topic: Asian American Film History).

### **AAS 312. Introduction to Asian American History.**

Same as History 317L (Topic 4). Introduces students to the national and transnational histories of Asian Americans in the United States. Explores a wide range of themes related to the Asian American experience. Asian American Studies 312 and History 317L (Topic 4) may not both be counted.

### **AAS 314. Asian American Literature and Culture.**

Same as English 314V (Topic 2: Asian American Literature and Culture). Explores how authors and artists over the course of the past century have imagined what it means to be Asian American. Covers a diverse range of Asian immigrant histories and the formation of Asian American identities according to ethnicity, gender, sexuality, class, and citizenship. Three lecture hours a week for one semester. Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

### **AAS 316D. Race, Deportation, and Diaspora.**

Same as African and African Diaspora Studies 316D, American Studies 315R, and Latin American Studies 310F. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 310 (Topic: Race, Deportation, Diaspora), 316D, 317D (Topic: Race, Deportation, Diaspora), American Studies 315 (Topic: Race, Deportation, Diaspora), 315R, Asian American Studies 310 (Topic: Race, Deportation, Diaspora), 316D, Latin American Studies 310 (Topic: Race, Deportation, Diaspora), 310F.

### **AAS 318Q. Supervised Research.**

For Asian American studies majors only. Supervised, student-derived research in Asian American studies. Individual instruction. May be repeated for credit when the research projects vary. Prerequisite: Rhetoric and Writing 306 and consent of the director of the Center for Asian American Studies.

## **Upper-Division Courses**

### **AAS 320C. Contemporary Asian American Novels.**

Same as English 343T. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic 3), 320C, English 343T, 376M (Topic 5). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **AAS 320D. Asian American Media Cultures.**

Same as Radio-Television-Film 359 (Topic 3). Examine popular and critical roles, representations, and politics of Asian Americans in U.S. media including Hollywood cinema, U.S. network and cable television, Asian American independent film, and online media. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic: Asian American Media Cultures), 320 (Topic 4), 320D, Radio-Television-Film 359 (Topic: Asian American Media Cultures), 359 (Topic 3). Prerequisite: Upper-division standing.

### **AAS 320F. Documenting Difference.**

Explore the theory, history, practice and poetics of minority documentary, as well as the related fields of oral history and archiving with a particular emphasis on Asian American examples. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic: Documenting Difference), 320 (Topic 6), 320F, Radio-Television-Film 359S (Topic: Documenting Difference). Prerequisite: Upper-division standing.

### **AAS 320G. Race, Internet, and Social Media.**

Same as American Studies 321 (Topic 12). Explores the critical, theoretical and practical analysis of race and new media. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Race, Internet & Social Media), American Studies 321 (Topic 12), Asian American Studies 320 (Topic: Race, Internet & Social Media), Asian American Studies 320 (Topic 7), 320G, Radio-Television-Film 359 (Topic: Race, Internet & Social Media). Prerequisite: Upper-division standing.

### **AAS 320J. Japanese Popular Culture: Anime, Manga, and the Otaku.**

Same as Asian Studies 372R. Examine a wide variety of Japanese popular media within the historical context during which these unique cultural forms developed. Focus on the popular manga and anime Japan has exported since becoming an economic superpower in the 1980s, the utopian/dystopian expression in Japanese sci-fi narratives of this era, and the complex interplay of gender and technology in the new post-human societies these narratives envision. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic: Jpn Pop Cul:Anime/Manga/Otaku), 320J, Asian Studies 372 (Topic: Jpn Pop Cul:Anime/Manga/Otaku), 372R. Prerequisite: Upper-division standing.

### **AAS 325C. The Chinese in Diaspora.**

Same as Asian Studies 361 (Topic 28) and History 350L (Topic 65). Explores narratives of migration, race, ethnicity, and a wide range of experiences of acculturation and assimilation from the perspective of a sending society—China—which has one of the longest and most diverse histories of sending people overseas. Over the last millennia, Chinese have migrated around the world and made homes under a great range of

adversity and opportunity, producing many stories of human differences and commonalities. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic 2), 325C, Asian Studies 361 (Topic 28), History 350L (Topic 65). Prerequisite: Upper-division standing.

#### **AAS 325D. The Chinese in the United States.**

Same as Asian Studies 340S and History 340S. History of the Chinese in the United States from their first arrival in significant numbers during the California Gold Rush of the mid-nineteenth century to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Chinese in the United States), 325 (Topic 3), 325D, Asian Studies 340S, History 340S. Prerequisite: Upper-division standing.

#### **AAS 325E. Taiwan: Colonization, Migration, and Identity.**

Same as Asian Studies 340T and History 340T. Explores issues of ethnicity, empire, and modernization in East Asia from the sixteenth century to the present, as seen through encounters between Taiwan and aborigines, Han Chinese, Dutch, Portuguese, the imperial Qing, Japanese, mainland Chinese Nationalist Party (KMT), and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic 4), 325E, Asian Studies 340T, History 340T. Prerequisite: Upper-division standing.

#### **AAS 325F. The Two Koreas and the United States.**

Same as Asian Studies 361 (Topic 24). The political, social, and cultural relationship between North and South Korea, and between the Koreans and the United States, since 1945. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: The Two Koreas and the US), Asian American Studies 325 (Topic: The Two Koreas and the US), 325 (Topic 7), 325F, Asian Studies 361 (Topic 24), Government 360N (Topic: The Two Koreas and the US), History 364G (Topic: The Two Koreas and the US). Prerequisite: Upper-division standing

#### **AAS 325G. History of the Southeast Asian Diaspora in the United States.**

Same as History 365G (Topic 11). Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic 8), 325G, History 365G (Topic 11). Prerequisite: Upper-division standing.

#### **AAS 325J. South Asian Migration to the United States.**

Same as Asian Studies 372P, History 365G (Topic 14), and Women's and Gender Studies 340 (Topic 35). Examines the South Asian diaspora in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: South Asian Migration to the United States), 325 (Topic 9), 325J, Asian Studies 372 (Topic: South Asian Migration to the United States), 372 (Topic 43), 372P, History 365G (Topic: South Asian Migration to the United States), 365G (Topic 14), Women and Gender Studies 340 (Topic: South Asian Migration to the United States), 340 (Topic 35). Prerequisite: Upper-division standing.

#### **AAS 325K. Refugees in Twentieth-Century United States.**

Same as History 350R (Topic 37). Explores the history of refugees in the twentieth century, with special attention to the United States and its engagement in the international arena of refugee politics. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Refugees in 20th-Century US), 325 (Topic 10), 325K, History 350R (Topic: Refugees in 20th-Century US), 350R (Topic 37). Prerequisite: Upper-division standing and six semester hours of coursework in history.

#### **AAS 325L. Global Economies: Asia and the United States.**

Same as Asian Studies 361 (Topic 48). Examines key trends in the economies of the United States and Asia, with emphasis on the links between these two major trading blocs. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Global Economies: Asia & US), 325 (Topic 11), 325L, Asian Studies 361 (Topic: Global Economies: Asia & US), 361 (Topic 48). Prerequisite: Upper-division standing.

#### **AAS 325M. Political Economy of Development in Postwar Korea.**

Same as Asian Studies 361C. Explore the political economy of South Korean development during the postwar period. Examine the history, society, and culture of South Korea. Discuss compressed modernity, developmental state, social movements, gender politics, financial crisis, urbanization, migration, and recent globalization of Korean popular culture. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Pol Econ Devel Postwar Korea), 325M, Asian Studies 361 (Topic: Pol Econ Devel Postwar Korea), 361C. Prerequisite: Upper-division standing.

#### **AAS 325N. Asian American Jurisprudence.**

Same as American Studies 321T and Government 357V. Examine the historical development of United States law and its relationship to Asian Americans, and of Asian American jurisprudence as an independent field of legal scholarship. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic 5), 321T, Asian American Studies 325 (Topic 5), 325N, Government 357M (Topic 9), 357V. Prerequisite: Upper-division standing.

#### **AAS 330C. Racism and Antiracism.**

Same as African and African Diaspora Studies 324E. Examines the theories and definitions of racism across several fields: anthropology, sociology, psychology, cultural studies, postcolonial studies, and gender/sexuality studies. Also includes a section that focuses on anti-racist activism, particularly within people of color and immigrant communities. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 324E, Asian American Studies 330 (Topic 2), 330C. Prerequisite: Upper-division standing.

#### **AAS 330D. Blacks and Asians: Race and Social Movements.**

Same as African and African Diaspora Studies 360G and Anthropology 324L (Topic 77). Examines the relations between Asians and Blacks in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360G, 374D (Topic: Blacks/Asians: Race/Social Movements), 374D (Topic 19), Anthropology 324L (Topic: Blacks/Asians: Race/Social Movements), 324L (Topic 77), Asian American Studies 330 (Topic: Blacks/Asians: Race/Social Movements), 330 (Topic 3), 330D. Prerequisite: Upper-division standing.

#### **AAS 330E. The Sociology of Race and Work.**

Same as Sociology 321R and Women's and Gender Studies 322F. Critical examination of work in the United States over the twentieth and twenty-first centuries through a gendered, Asian American lens, using a comparative race perspective. Subjects include the sociological examination of concepts such as labor markets, globalization, care work, and gender/racial segregation in the workplace along with the ways race and gender shape how and where individuals are fitted into the workplace, how skills are evaluated, and how labor markets emerge. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 330 (Topic 4), 330E, Sociology

321R, Women's and Gender Studies 322 (Topic 6), 322F. Prerequisite: Upper-division standing.

### **AAS 330F. Transnational Korea.**

Same as Asian Studies 379 (Topic 6). Recent and contemporary manifestations of the Koreans in the world and the world in the Koreans. Subjects include labor and marriage migration, educational sojourning, transnational adoption, tourism, international sport, corporate expatriation, and media flows. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Transnational Korea), Asian American Studies 330 (Topic 5), 330F, Asian Studies 379 (Topic 6). Prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

### **AAS 330G. Urban Unrest.**

Same as African and African Diaspora Studies 360F, American Studies 321 (Topic 8), Anthropology 324L (Topic 46), and Urban Studies 327U. Analysis of the roots of urban unrest, exploring a range of origins: joblessness, state violence, white flight, backlash against civil rights gains, new immigration, and interracial strife. Beyond race and class, subjects include exploring unrest as a mode of pushing the normative boundaries of gender and sexuality in public space. Course material will draw from film, literature, history, geography, and anthropology. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360F, 372F (Topic 13), American Studies 321 (Topic 8), Anthropology 324L (Topic 46), Asian American Studies 330 (Topic 6), 330G, Urban Studies 327U, 354 (Topic 14). Prerequisite: Upper-division standing.

### **AAS 330J. Asian Mobilities.**

Same as Asian Studies 361 (Topic 50). Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 330 (Topic: Asian Mobilities), 330 (Topic 7), 330J, Asian Studies 361 (Topic: Asian Mobilities), 361 (Topic 50). Prerequisite: Upper-division standing.

### **AAS 330K. Asian Americans in the South.**

Same as American Studies 324F. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Asian Americans in the South), 324F, Asian American Studies 330 (Topic: Asian Americans in the South), 330K. Prerequisite: Upper-division standing.

### **AAS 330L. Anthropology of the Himalayas.**

Same as Anthropology 323P and Asian Studies 361 (Topic 27). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323P, 324L (Topic: Anthropol of the Himalayas), Asian American Studies 330 (Topic: Anthropol of the Himalayas), 330L, Asian Studies 361 (Topic: Anthropology of the Himalayas), 361 (Topic 27). Prerequisite: Upper-division standing.

### **AAS 330M. Reproductive Justice and Race.**

Same as Sociology 335R and Women's and Gender Studies 340 (Topic 78). Examine the links between reproductive care and social inequality, and explore reproductive outcomes for women in the context of social justice. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 330 (Topic: Reproductive Justice & Race), 330M, Sociology 321K (Topic: Reproductive Justice & Race), 355R, Women's and Gender Studies 340 (Topic: Reproductive Justice & Race), 340 (Topic 78). Prerequisite: Upper-division standing.

### **AAS 330N. Migration Crisis.**

Same as African and African Diaspora Studies 360J, Mexican American Studies 364J, and Race, Indigeneity, and Migration 330N. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360J, 374D (Topic: Migration Crisis), Asian American Studies 330N, 335 (Topic: Migration Crisis), Mexican American Studies 364J, 374 (Topic: Migration Crisis), Race, Indigeneity, and Migration 330N. Prerequisite: Upper-division standing.

### **AAS 335. Topics in Asian American Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Bridging Community Through Service Learning.** Explores culture in community life and how it affects the collaboration of service providing entities. Through service learning, students will take what they learn in the classroom and apply those theories and techniques within the community. Special emphasis will be given to the understanding of the Asian/Asian American community and multiculturalism in community services. Only one of the following may be counted: Asian American Studies 335 (Topic: Bridging Community Thru Service-Learning), 335 (Topic 1), Social Work 360K (Topic: Bridging Community Through Service Learning). Additional prerequisite: Upper-division standing.

### **AAS 358Q. Supervised Research.**

For Asian American studies majors only. Supervised, student-derived research in Asian American studies. Individual instruction. May be repeated for credit when the research projects vary. Prerequisite: Upper-division standing, Rhetoric and Writing 306, and consent of the director of the Center for Asian American Studies.

### **AAS 377. Capstone Seminar.**

Restricted to Asian American studies majors. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and completion of fifteen hours of Asian American Studies coursework.

### **AAS 378. Community Internship.**

Supervised internship in a community, civic, or government organization or program that facilitates the economic, political, and social development of the Asian American community. The equivalent of three lecture hours a week for one semester, with additional field hours to be arranged. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and consent of the director of the Center for Asian American Studies.

### **AAS 379. Conference Course in Asian American Studies.**

Supervised individual study of selected problems in Asian American studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of the director of the Center for Asian American Studies.

### **AAS 679H. Honors Tutorial Course.**

Supervised individual reading for one semester, followed by a semester of research and writing to produce a substantial paper on a specific topic in Asian American studies. Conference course for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Asian American Studies Honors Program; for 679HB, Asian American Studies 679HA.

## Graduate Courses

### AAS 381. Topics in Asian American Studies.

Theoretical and methodological training through key texts in Asian American studies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser; additional prerequisites vary with the topic.

### AAS 391C. Conference Course.

Designed to expand the graduate student's opportunity for individual consultation. Complements courses fulfilling the Asian American studies graduate portfolio. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of the instructor and graduate adviser; consent forms are available from the graduate coordinator.

## Professional Courses

## Asian Studies Courses

### Asian Studies: ANS

#### Lower-Division Courses

##### ANS 301M. Introductory Topics in Asian Studies.

Discussion of various problems involving language, history, and culture in Asia. Three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary.

**Topic 3: History of East Asia to 1800.** Same as History 305K. A survey of the traditional history and culture of China, Japan, Korea, and Vietnam.

**Topic 4: History of East Asia since 1800.** Same as History 305L. A survey of the modern history of China, Japan, Korea, and Vietnam.

**Topic 6: Asia's Futures.** Same as Government 314 (Topic 5: Asia's Futures). Current issues, visible trends, and projections for Asia's future.

**Topic 11: Introduction to Buddhism.** Same as Religious Studies 312C. A structural and historical overview of Buddhism through the examination of various schools, doctrines, biographical narratives, and contemporary ethical issues. Only one of the following may be counted: Asian Studies 301M (Topic 11), Religious Studies 312 (Topic: Introduction to Buddhism), 312C.

**Topic 13: Forbidden Romance in Modern Chinese Literature.** Same as Comparative Literature 305 (Topic 1). Introduction to modern Chinese literature from the late Qing Dynasty (latter half of the nineteenth century) to the present. Only one of the following may be counted: Asian Studies 301M (Topic: Forbidden Romance in Modern Chinese Literature), 301M (Topic 13), Comparative Literature 305 (Topic: Forbidden Romance in Modern Chinese Literature), 305 (Topic 1).

**Topic 14: East Asian Martial Arts Films.** Explores the concept of "East Asian" from the cinematic perspective, focusing on the martial arts film genre. Additional hours required for film screenings. Asian Studies 301M (Topic: Everybody is Kung Fu Fighting) and 301M (Topic 14) may not both be counted.

**Topic 15: Introduction to Islam.** Same as History 306N (Topic 7), Islamic Studies 310, and Religious Studies 319. The beliefs, theology, history, and main social and legal institutions of Islam, including the concept of God and society, the role of women, and Islamic government and movements. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 15), History 306N (Topic 7), Islamic Studies 310, Religious Studies 319.

**Topic 16: Introduction to Japanese Film.** Broad survey of Japanese cinema, including silent films, feature films, documentaries, and

anime, that covers the basic history of Japanese cinema. Background in Japanese not required, all films are subtitled in English. Additional hours may be required for film/media screenings. Asian Studies 301M (Topic: Introduction to Japanese Film) and 301M (Topic 16) may not both be counted.

**Topic 17: Introduction to Politics in East Asia.** Same as Government 314 (Topic 11). Introduction to politics and political systems of Japan, China, Taiwan, North Korea, and South Korea. Only one of the following may be counted: Asian Studies 301M (Topic: Introduction to Politics in East Asia), 301M (Topic 17), Government 314 (Topic: Introduction to Politics in East Asia), 314 (Topic 11).

##### ANS 301R. History of the Religions of Asia.

Same as Core Texts and Ideas 306D and Religious Studies 302. Eastern religions: an introduction to the basic forms and the historical development of the religious traditions of India, China, and Japan. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 301R, Core Texts and Ideas 304 (Topic: History of Religions of Asia), 306D, 310 (Topic: History of Religions of Asia), Religious Studies 302.

##### ANS 302C. Introduction to China.

Same as History 302C. Introduction to Chinese civilization, past and present, including religion, literature, arts, philosophy, and history. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 302C, History 302C, 306N (Topic: Introduction to China).

##### ANS 302D. Introduction to Korean Culture and History.

Introduction to Korea's history, culture, and civilization from antiquity to the present. Three lecture hours a week for one semester. Asian Studies 301M (Topic 10) and 302D may not both be counted.

##### ANS 302J. Introduction to Japan.

Introduction to Japanese civilization, past and present, including religion, literature, arts, philosophy, and history. Three lecture hours a week for one semester.

##### ANS 302K. Introduction to South Asia.

Same as Anthropology 310L (Topic 5: Introduction to India). Introduction to Indian and south Asian civilization, past and present, including religion, literature, arts, philosophy, and history. Only one of the following may be counted: Anthropology 310L (Topic 5), Asian Studies 302K, History 306N (Topic: Introduction to India).

##### ANS 307C. Introduction to the History of India.

Same as History 307C. Survey of the history of the Indian subcontinent from prehistoric times to the present. Three lecture hours a week for one semester.

##### ANS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Asian Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## Upper-Division Courses

##### ANS 320C. Genji to Godzilla: Adaptations of the Japanese Classics.

Examine how premodern, modern, and contemporary classics of Japanese literature, film, and theater get adapted over the centuries, and

how culture, politics, gender, genre, and medium influence the adaptation process. Three lecture hours a week for one semester. Asian Studies 320 (Topic 2) and 320C may not both be counted. Prerequisite: Upper-division standing.

#### **ANS 320D. Classical Indian Literature in Translation.**

Explore narrative literature and poetry composed in the three classical languages of India (Old Tamil, Sanskrit, and Prakrit). Three lecture hours a week for one semester. Asian Studies 320 (Topic: Classical Indian Literature) and 320D cannot both be counted. Prerequisite: Upper-division standing.

#### **ANS 321M. Politics in Japan.**

Same as Government 321M. Survey of postwar Japanese politics; the occupation, governmental institutions, interest groups, protest movements, industrial policy, the government-business relationship, and political and economic reform. Three lecture hours a week for one semester. Asian Studies 321M and Government 321M may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

#### **ANS 322M. Politics in China.**

Same as Government 322M. Survey of twentieth-century China: historical trends; 1911 revolution; Warlord-Nationalist period; Communist revolution; post-1949 issues; new social and political institutions. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 322M, 361 (Topic: Politics in China), Government 322M. Prerequisite: Six semester hours of lower-division coursework in government.

#### **ANS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Asian Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **ANS 338L. East Asian International Relations.**

Same as Government 338L. Survey of Russian/Soviet, Japanese, Chinese, and American foreign policies of the twentieth century, emphasizing Pacific-region interests; historical policies; intermittent conflicts, such as China versus Japan, Korean War, Indochina Wars; China's emergence as a nuclear power. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 338L, 361 (Topic: East Asian International Relations), Government 338L. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

#### **ANS 340C. Japanese Religion and Western Imagination.**

Same as Anthropology 324D and Religious Studies 352D. Examines Japanese religious traditions, with a focus on Zen, through the perspective of people living in non-Japanese societies since the end of World War II. Explores different ways in which non-Japanese have imagined Japanese religious and ethical ideas and both explained Japanese behavior and adopted ideas about Japan into their writings about philosophy and life. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Japanese Religion and Western Imagination), 340C, Anthropology 324D, 324L (Topic: Japanese Religion and Western Imagination), Religious Studies 352 (Topic: Japanese Religion and Western Imagination), 352D. Prerequisite: Upper-division standing.

#### **ANS 340D. History of Hindu Religious Traditions.**

Same as Anthropology 322N, History 364C, and Religious Studies 321. History of major doctrines, practices, and institutions that shaped the development of Hinduism; how religions adapt to social and cultural change and often provide the catalyst for change. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322N, 324L (Topic 23), Asian Studies 340 (Topic 4), 340D, History 364C, 364G (Topic 1), Religious Studies 321. Prerequisite: Upper-division standing.

#### **ANS 340E. History of Indian Buddhism.**

Same as Religious Studies 322. The institutional, social, economic, and doctrinal history of Buddhism in India. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic 5), 340E, Religious Studies 322. Prerequisite: Upper-division standing.

#### **ANS 340F. Goddesses in World Religions and Cultures.**

Same as Anthropology 322J, Religious Studies 373G, and Women's and Gender Studies 340 (Topic 30). Historical and cross-cultural overview of the relationship between feminine and religious cultural expressions through comparative examinations and analyses of various goddess figures in world religions. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322J, 324L (Topic: Goddesses in World Religions and Cultures), Asian Studies 340 (Topic 7), 340F, Religious Studies 373 (Topic 3), 373G, Women's and Gender Studies 340 (Topic 30). Prerequisite: Upper-division standing.

#### **ANS 340G. Ritual and Religion in Korea.**

Same as Religious Studies 352R. Examine major religious traditions of Korea; focus on the recent history and contemporary practice, and the relation between religion and politics during Korea's colonial (1910-1945) and postcolonial eras. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Ritual and Religion in Korea), Asian Studies 340 (Topic 10), 340G, Religious Studies 352 (Topic 4), 352R. Prerequisite: Upper-division standing.

#### **ANS 340I. Saints and Shrines in Islam.**

Same as Religious Studies 358S. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Saints & Shrines In Islam), 340I, Religious Studies 358 (Topic 23), 358S. Prerequisite: Upper-division standing.

#### **ANS 340J. Jainism: Religion of Non-Violence.**

Same as Religious Studies 341F. Survey of the history, doctrines, institutions, and practices of Jainism from its origins to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Jainism: Relig of Non-Violence), 340J, Religious Studies 341 (Topic: Jainism: Relig of Non-Violence), 341F. Prerequisite: Upper-division standing.

#### **ANS 340L. Post-Mao China: Change and Transformation.**

Same as History 340L. Examines in a historical context the Chinese economy, society, politics, and culture during the reform era that began in the late 1970s. Explores the transformation of rural and urban economies and related social consequences; government systems, political ideologies, and popular values; and China's integration into the global system and its impact on China's role in world politics. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340L, 361 (Topic: Post-Mao China: Change and Transformation), History 340L, 364G (Topic: Post-Mao China: Change and Transformation). Prerequisite: Upper-division standing.

**ANS 340M. Modern China.**

Same as History 340M. History of China from the intrusion of the West circa 1500 to the Communist revolution. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ANS 340P. European Expansion in Asia.**

Same as History 340P. European exploration, the commerce of the East India Companies, and the beginnings of empire in South and Southeast Asia from the fifteenth to the early nineteenth century. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ANS 340Q. Sufism: Islamic Thought and Spirituality.**

Same as History 339S, Middle Eastern Studies 342S, and Religious Studies 358I. Explore Sufism and other Islamic mystical traditions that color cultural milieus spanning four continents and fourteen centuries. Focus on the historical developments in the Islamic theosophical tradition, as well as the relationship between Sufism and poetics, colonialism, and post-colonial resistance movements. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic 8), 340Q, 361 (Topic: Sufism and Islam Mysticism), History 339S, 366N (Topic: Sufism and Islam Mysticism), Islamic Studies 340 (Topic 4), Middle Eastern Studies 342 (Topic: Sufism and Islam Mysticism), 342 (Topic 24), 342S, Religious Studies 358 (Topic 4), 358I, 361 (Topic: Sufism and Islam Mysticism). Prerequisite: Upper-division standing.

**ANS 340R. European Empires in Asia.**

Same as History 340R. The British in India and Malaya, the Dutch in Indonesia, and the French in Indochina since 1800. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ANS 340S. The Chinese in the United States.**

Same as Asian American Studies 325D and History 340S. History of the Chinese in the United States from their first arrival in significant numbers during the California Gold Rush of the mid-nineteenth century to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Chinese in the United States), 325 (Topic 3), 325D, Asian Studies 340S, History 340S. Prerequisite: Upper-division standing.

**ANS 340T. Taiwan: Colonization, Migration, and Identity.**

Same as Asian American Studies 325E and History 340T. Explores issues of ethnicity, empire, and modernization in East Asia from the sixteenth century to the present, as seen through encounters between Taiwan and aborigines, Han Chinese, Dutch, Portuguese, the imperial Qing, Japanese, mainland Chinese Nationalist Party (KMT), and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic 4), 325E, Asian Studies 340T, History 340T. Prerequisite: Upper-division standing.

**ANS 340U. Devotional Literature of India.**

Same as Religious Studies 341U. Discuss the songs of major saints. Examine how holy men and women expressed their religiosity through the medium of songs and poetry over the centuries and consider the role these songs had in shaping the religious communities of India. All works will be studied in translation. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Devotional Lit Of India), 340U, Religious Studies 341 (Topic: Devotional Lit Of India), 341U. Prerequisite: Upper-division standing.

**ANS 340V. Religions in Contact.**

Same as Religious Studies 373N. Critically examine the theories (religious othering, conversion, reinterpretation, appropriation, etc.) of how one religion responds to contact with another. Explore the ways in which religious actors grapple with religious plurality, draw or ignore

boundaries, and form religious identities. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Religions in Contact), 340V, Religious Studies 373 (Topic: Religions in Contact), 373N. Prerequisite: Upper-division standing.

**ANS 340W. Shia Islam.**

Same as Islamic Studies 340 (Topic 8) and Religious Studies 359E. Examine how the first century of Islamic history inaugurated debates concerning authority, piety, and justice and how these debates have continued to the present. Explore the social forces and ideologies that shaped Shiism. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Shia Islam), 340W, Islamic Studies 340 (Topic: Shia Islam), 340 (Topic 8), Religious Studies 358 (Topic: Shia Islam), 359E. Prerequisite: Upper-division standing.

**ANS 341K. Origins of Modern Japan.**

Same as History 341K. Japan to the beginnings of the Industrial Revolution, with a focus on the culminating age of samurai rule, the Tokugawa period (1600-1867). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ANS 341M. Imperial Japan.**

Same as History 341M. Japan from the Meiji transformation through war, defeat, and occupation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ANS 341N. Postwar Japan.**

Same as History 342C. Japan since the war and occupation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ANS 341P. Shamanism and the Primitive.**

Same as Anthropology 325W, Religious Studies 352G, and Russian, East European, and Eurasian Studies 345 (Topic 12). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Shamanism & the Primitive), 325W, Asian Studies 340 (Topic: Shamanism & the Primitive), 341P, Religious Studies 352 (Topic: Shamanism & the Primitive), 352G, Russian, East European, and Eurasian Studies 345 (Topic: Shamanism & the Primitive), 345 (Topic 12). Prerequisite: Upper-division standing.

**ANS 342D. Political Economy of Japan.**

Same as History 342D. Historical development of the Japanese economy since early modern times. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ANS 346C. Ancient India.**

Same as History 346C. History and culture of South Asia from its protohistoric beginnings in the Indus Valley through the period of the early empires of the Mauryas and Guptas. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ANS 346D. Medieval India.**

Same as History 346D. History and culture of South Asia from approximately 500 to 1500, with emphasis on religious and political institutions and the emergence of regional cultures. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ANS 346M. Early Modern India.**

Same as History 346M. The history and culture of South Asia from approximately 1500 to 1750. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies

346M, History 346M, Religious Studies 341 (Topic 6). Prerequisite: Upper-division standing.

**ANS 346N. The Indian Subcontinent, 1750-1950.**

Same as History 346N. Examines the cultural and political movements and events that led to formation of the two nation-states India and Pakistan. Three lecture hours a week for one semester. Asian Studies 346N and History 346N may not both be counted. Prerequisite: Upper-division standing.

**ANS 347K. Governments and Politics of South Asia.**

Same as Government 347K. A survey of political developments, governmental organization, and economic and social problems in South Asia. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

**ANS 361. Topics in Asian Studies.**

Selected topics in south and east Asian anthropology, economics, history, geography, government, and sociology. Three lecture hours a week for one semester; additional hours may be required for some topics. Asian Studies 320 and 361 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

**Topic 5: Cultures of Southeast Asia.** Asian Studies 361 (Topic 5) is same as Anthropology 324L (Topic 8: Cultures of Southeast Asia). Comparative study of the peoples of Indonesia, Burma, Thailand, Malaysia, and other countries. Additional prerequisite: Upper-division standing.

**Topic 6: Gandhi and Gandhism.** Same as History 350L (Topic 5) and Religious Studies 341C. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 6), History 350L (Topic 5), Religious Studies 341 (Topic 5), 341C. Additional prerequisite: Upper-division standing.

**Topic 11: Musics of India.** Asian Studies 361 (Topic 11) is same as Anthropology 324L (Topic 13: Musics of India) and Music 342 (Topic 3: Musics of India). Prerequisite: Upper-division standing.

**Topic 22: Japanese Foreign Policy.** Same as Government 365C. An introduction to the foreign and domestic determinants of Japanese foreign policy. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 22), Government 365C, 365L (Topic 2). Additional prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**Topic 23: International Relations of East and Southeast Asia.** Same as Government 365D. An introduction to the international relations of East and Southeast Asia, with particular attention to postwar economic and security issues, the changing political landscape of the post-Cold War period, and the development and functions of regional institutions. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 23), Government 365D, 365L (Topic 3). Additional prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**Topic 24: The Two Koreas and the United States.** Same as Asian American Studies 325F. The political, social, and cultural relationship between North and South Korea, and between the Koreas and the United States, since 1945. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: The Two Koreas and the US), Asian American Studies 325 (Topic: The Two Koreas and the US), 325 (Topic 7), 325F, Asian Studies 361 (Topic 24), Government 360N (Topic: The Two Koreas and the US), History 364G (Topic: The Two Koreas and the US). Additional prerequisite: Upper-division standing

**Topic 25: Capitalism, Consumption, and Civil Society in Korea.**

Contemporary social and political life in urban South Korea, including such topics as corporations, factory work, consumption, activism, popular culture, and changing gender systems and roles. Anthropology 324L (Topic: Capitalism, Consumption, and Civil Society in Korea) and Asian Studies 361 (Topic 25) may not both be counted.

**Topic 27: Anthropology of the Himalayas.** Same as Anthropology 323P and Asian American Studies 330L. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323P, 324L (Topic: Anthropol of the Himalayas), Asian American Studies 330 (Topic: Anthropol of the Himalayas), 330L, Asian Studies 361 (Topic: Anthropology of the Himalayas), 361 (Topic 27). Additional prerequisite: Upper-division standing.

**Topic 28: The Chinese in Diaspora.** Same as Asian American Studies 325C and History 350L (Topic 65). Explores narratives of migration, race, ethnicity, and a wide range of experiences of acculturation and assimilation from the perspective of a sending society—China—which has one of the longest and most diverse histories of sending people overseas. Over the last millennia, Chinese have migrated around the world and made homes under a great range of adversity and opportunity, producing many stories of human differences and commonalities. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic 2), 325C, Asian Studies 361 (Topic 28), History 350L (Topic 65). Additional prerequisite: Upper-division standing.

**Topic 29: Biomedicine, Ethics, and Culture.** Same as Anthropology 323N and Religious Studies 373M. Examines ethical questions such as the allocation of medical resources, stem cell research and cloning, organ transplantation, abortion, human experimentation, prolonging life and the right to die, suicide, euthanasia, and diagnosis and treatment of illnesses, explored from a global perspective. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323N, 324L (Topic: Biomedicine, Ethics, & Culture), Asian Studies 361 (Topic: Biomedicine, Ethics, & Culture), 361 (Topic 29), Religious Studies 373 (Topic: Biomedicine, Ethics, & Culture), 373M. Additional prerequisite: Upper-division standing.

**Topic 30: Why Chinese Has No Alphabet.** Same as Linguistics 350E. Introduction to the history and evolution of the Chinese writing system and language. No background in Chinese language, culture, or linguistics is required. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 30), Linguistics 350 (Topic: Why Chinese Has No Alphabet), 350E. Additional prerequisite: Upper-division standing.

**Topic 31: Global Markets and Local Cultures.** Same as Anthropology 324L (Topic 49). Examines contemporary theories of globalization, including materials exploring global governance, international monetary policy, migration regulation, offshoring, and cultural hybridity. Focuses on case studies in Asia and elsewhere that reveal how these practices impact particular communities. Only one of the following may be counted: Anthropology 324L (Topic: Global Markets and Local Cultures), 324L (Topic 49), Asian Studies 361 (Topic 31), 372 (Topic: Global Markets and Local Cultures), 372 (Topic 26). Additional prerequisite: Upper-division standing.

**Topic 32: The History of Chinese Language and Translation.** In-depth study of the Chinese language and culture focusing on the cultural, social, historical, and political background against which the Chinese language has evolved and continues to evolve. Asian Studies 361 (Topic: Lost in Translation: Chinese Language and Literature) and 361 (Topic 32) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 33: Mughal India in History and Memory.** Same as History 350L (Topic 67) and Islamic Studies 372 (Topic 20). Focuses on South Asia during the era of the Mughal empire (1550-1750), continuing through the symbolic relevance of the Mughal dynasty in British India and in India today. Only one of the following may be counted: Asian

Studies 361 (Topic: Mughal India in History and Memory), 361 (Topic 33), History 350L (Topic: Mughal India in History and Memory), 350L (Topic 67), Islamic Studies 372 (Topic: Mughal India in History and Memory), 372 (Topic 20).

**Topic 34: Modernization in East Asia.** Same as History 364R. Examines the different historical experiences of mainland China and Taiwan in the context of the East Asian model of development. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 34), History 364G (Topic 8), 364R. Additional prerequisite: Upper-division standing.

**Topic 36: Political Economy of Asia.** Same as Government 365E. Explores the political economies of East Asia with an emphasis on Japan, China, South Korea, and Taiwan. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Political Economy of Asia), 361 (Topic 36), Government 365E, 365L (Topic: Political Economy of Asia), 365L (Topic 4). Additional prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**Topic 38: Religion and Family in Japanese Society.** Same as Religious Studies 352F. Explores the structures of family, kinship, and religion in Japan since 1868 and their roles in the creation and expression of national and individual identities. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Religion and Family in Japanese Society), Asian Studies 361 (Topic 38), 372 (Topic: Religion and Family in Japanese Society), Religious Studies 352 (Topic 9), 352F. Additional prerequisite: Upper-division standing.

**Topic 39: Anthropology of Globalization.** Only one of the following may be counted: Anthropology 324L (Topic: Anthropology of Globalization), Asian Studies 361 (Topic: Anthropology of Globalization), 361 (Topic 39).

**Topic 40: Asian Regionalism and Multilateral Cooperation.** Same as Government 365F. Addresses the nature, functional principles, leadership, and policy-making process of contemporary Asian regionalism in comparison to the experiences of European integration. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Asian Regionalism and Multilateral Cooperation), 361 (Topic 40), Government 365F, 365L (Topic: Asian Regionalism and Multilateral Cooperation), 365L (Topic 5). Additional prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**Topic 41: Uprising in India-1857.** Same as History 350L (Topic 92). Introduces the problems faced with the uprising of 1857 in India, the most violent and widespread attempt ever made to destroy the British empire in South Asia. Only one of the following may be counted: Asian Studies 361 (Topic: Uprising in India-1857), 361 (Topic 41), History 350L (Topic: Uprising in India-1857), 350L (Topic 92).

**Topic 43: Slavery and South Asian History.** Same as History 367F. Discuss the presence of slavery in the subcontinent in the third century BCE to the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Slavery and South Asian History), 361 (Topic 43), History 364G (Topic: Slavery and South Asian History), 364G (Topic 16), 367F. Additional prerequisite: Upper-division standing.

**Topic 44: Gender and Modern India.** Same as History 367D and Women's and Gender Studies 340 (Topic 75). Examines gender and the shifting nature of modernity between precolonial and colonial periods in the Indian subcontinent. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Gender and Modern India), 361 (Topic 44), History 364G (Topic: Gender and Modern India), 364G (Topic 13), 367D, Women's and Gender Studies 340 (Topic: Gender and Modern India), 340 (Topic 75). Additional prerequisite: Upper division standing.

**Topic 46: Business and Society in South Asia.** Same as History 367C. Introduction to the long history of commerce and enterprise in the

Indian sub-continent up to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 46), History 364G (Topic 12), 367C. Additional prerequisite: Upper-division standing.

**Topic 48: Global Economies: Asia and the United States.** Same as Asian American Studies 325L. Examines key trends in the economies of the United States and Asia, with emphasis on the links between these two major trading blocs. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Global Economies: Asia & US), 325 (Topic 11), 325L, Asian Studies 361 (Topic: Global Economies: Asia & US), 361 (Topic 48). Additional prerequisite: Upper-division standing.

**Topic 49: Development And Its Critics.** Same as Anthropology 324L (Topic 31). Only one of the following may be counted: Anthropology 324L (Topic: Development And Its Critics), 324L (Topic 31), Asian Studies 361 (Topic: Development And Its Critics), 361 (Topic 49). Additional prerequisite: Upper-division standing.

**Topic 50: Asian Mobilities.** Same as Asian American Studies 330J. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 330 (Topic: Asian Mobilities), 330 (Topic 7), 330J, Asian Studies 361 (Topic: Asian Mobilities), 361 (Topic 50). Additional prerequisite: Upper-division standing.

### **ANS 361C. Political Economy of Development in Postwar Korea.**

Same as Asian American Studies 325M. Explore the political economy of South Korean development during the postwar period. Examine the history, society, and culture of South Korea. Discuss compressed modernity, developmental state, social movements, gender politics, financial crisis, urbanization, migration, and recent globalization of Korean popular culture. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Pol Econ Devel Postwar Korea), 325M, Asian Studies 361 (Topic: Pol Econ Devel Postwar Korea), 361C. Prerequisite: Upper-division standing.

### **ANS 361D. History of Food and Healing in China and Taiwan.**

Same as History 367Q. Explore the cultural, historical, philosophical, social, and scientific background against which the connection between food and healing has evolved through Chinese history. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Hist Food/Heal China Taiwan), 361D, History 364G (Topic: Hist Food/Heal China Taiwan), 367Q. Prerequisite: Upper-division standing.

### **ANS 361E. Urban Experiences In East Asia.**

Same as Urban Studies 330F. Explores the process of urbanization in East and Southeast Asia focusing on the politics of capital accumulation and distribution. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Urban Experiences In East Asia), 361E. Urban Studies 354 (Topic: Urban Experiences In East Asia), 330F. Prerequisite: Upper-division standing.

### **ANS 361F. Ethnic Politics in Taiwan and Asia.**

Same as Government 366J. Explore ethnic politics in Taiwan including some comparison with ethnic politics in neighboring countries. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Ethnic Polit in Taiwan/Asia), 361F, Government 365L (Topic: Ethnic Polit in Taiwan/Asia), 366J. Prerequisite: Six semester hours of lower-division coursework in Government.

### **ANS 361G. State Building in China and Taiwan.**

Same as Government 365O. Compare and contrast the state building process in mainland China and Taiwan. Three lecture hours a week for

one semester. Only one of the following may be counted: Asian Studies 361 (Topic: State Build in China/Taiwan), 361G, Government 365L (Topic: State Build in China/Taiwan), 365O. Prerequisite: Six semester hours of lower-division coursework in Government.

**ANS 361J. Development and Social Movement in East and Southeast Asia.**

Same as Geography 321D. Examine the notions of development and the ways in which development is associated with state building, moral economy, political performance, and accumulation regimes. Explore the development of civil society and social movement in East Asia, and explanations of the mechanisms and drivers of displacement. Conceptualize the "Right to the City", and alternative right-based approaches to land, housing, infrastructure, commons and public resources. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Development and Movement), 361J, Geography 321D, 356T (Topic: Development and Movement). Prerequisite: Upper-division standing.

**ANS 361K. The Indian Republic Since 1947.**

Same as History 346P. An overview of Contemporary India, a republic that emerged from the British Empire. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Indian Republic 1947-Pres), 361K, History 346P. Prerequisite: Upper-division standing.

**ANS 361L. Global Commodities: Asia and the World.**

Same as History 350L (Topic 97). Explore the vital role of commodities in Asian history with a particular focus on East and Southeast Asia. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Global Commodities: Asia and T), 361L, History 350L (Topic: Global Commodities: Asia and T), 350L (Topic 97). Prerequisite: Upper-division standing.

**ANS 361M. Big Asian Histories.**

Same as Anthropology 322F and History 340V. Examines ways in which Asia and other areas of the globe have had connected intellectual, artistic, and social developments with focus on world histories centrally involving Asia from the medieval period to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322F, 324L (Topic: Big Asian Histories), Asian Studies 361 (Topic: Big Asian Histories), 361M, History 340V, 364G (Topic: Big Asian Histories). Prerequisite: Upper-division standing.

**ANS 361N. Self and Culture in North Korea.**

Same as Anthropology 322E. Aims to understand North Korea's historical development and its current workings as a social, cultural, and political/ideological system. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322E, 324L (Topic: Self & Culture In North Korea), Asian Studies 361 (Topic: Self & Culture In North Korea), 361N. Prerequisite: Upper-division standing.

**ANS 361P. Africa and Indian Ocean World.**

Same as African and African Diaspora Studies 352L and History 350L (Topic 96). Explore the connected histories of the geographical regions and economic communities that share the littoral space of the Indian Ocean. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352L, 374C (Topic: Africa/Indian Ocean World), Asian Studies 361 (Topic: Africa/Indian Ocean World), 361P, History 350L (Topic: Africa/Indian Ocean World), 350L (Topic 96). Prerequisite: Upper-division standing.

**ANS 361Q. The Age of the Samurai.**

Same as History 368S. Explore the history of Japan via an examination of the complex and ever-changing figure of the samurai. Three lecture

hours a week for one semester. Only one of the following may be counted: Asian Studies 361Q, 372 (Topic: The Age of the Samurai), History 364G (Topic: The Age of the Samurai), 368S. Prerequisite: Upper-division standing.

**ANS 361R. Transnational Asia: From the Middle East to the Far East.**

Same as History 343C and Middle Eastern Studies 343 (Topic 21). Examine how various groups of people understood, experienced, and imagined concepts such as "the East" and "Asia" with a primary focus on the nineteenth and twentieth centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Transnational Asia), 361R, History 343C, Middle Eastern Studies 343 (Topic: Transnational Asia), 343 (Topic 21). Prerequisite: Upper-division standing.

**ANS 362. Research in Asian Studies.**

Individual instruction for Asian studies majors and nonmajors. Discussion, research, and the writing of papers about various general and specialized Asian subjects. Conference course. May be repeated for credit. Prerequisite: Six semester hours of coursework in Asian studies and written consent of instructor on form obtained from the undergraduate adviser.

**ANS 372D. A Tale of Five Chinese Cities.**

Explore themes of modernization, migration, international relations, gender, and labor through literary and cinematic texts about Beijing, Hong Kong, Nanjing, Shanghai, and Taipei. Consider certain historical moments and the notion of Chineseness in an increasingly and culturally deterritorialized world. Three lecture hours a week for one semester. Asian Studies 372 (Topic 11) and 372D may not both be counted. Prerequisite: Upper-division standing.

**ANS 372E. Globalizing East Asian Popular Culture.**

Takes the globalization of popular culture as an analytical lens through which to reflect modernity, (trans)nationalism, gender politics, and identity formations in East Asia. Three lecture hours a week for one semester. Asian Studies 372 (Topic: Globalizing E Asian Pop Cultr) and 372E may not both be counted. Prerequisite: Upper-division standing.

**ANS 372F. Veiling in the Muslim World.**

Same as Islamic Studies 372 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 22), Religious Studies 358V, and Women's and Gender Studies 340 (Topic 11). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 14), 372F, Islamic Studies 372 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 22), Religious Studies 358 (Topic 5), 358V, Women's and Gender Studies 340 (Topic 11). Prerequisite: Upper-division standing.

**ANS 372G. Precolonial India, 1200-1750.**

Same as History 346G. Surveys the history of South Asia during the era prior to British colonial rule. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic: Precolonial India, 1200-1750), 372G, History 346G, 364G (Topic: Precolonial India, 1200-1750). Prerequisite: Upper-division standing.

**ANS 372J. Women and Gender in China.**

Same as History 350L (Topic 46) and Women's and Gender Studies 340 (Topic 18). Examine women and gender in China from imperial times to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 21), 372J, History 350L (Topic 46), Women's and Gender Studies 340 (Topic 18). Prerequisite: Upper-division standing.

### **ANS 372K. Gender, Sexuality, and the Family in Indian Religions and Cultures.**

Same as Anthropology 3220, Religious Studies 341M, and Women's and Gender Studies 340 (Topic 25). A comprehensive historical overview of gender issues as they are represented in the textual traditions of South Asia. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 3220, 324L (Topic 40), Asian Studies 372 (Topic 25), 372K, Religious Studies 341 (Topic 3), 341M, Women's and Gender Studies 340 (Topic 25). Prerequisite: Upper-division standing.

### **ANS 372L. Confucianism.**

Same as Religious Studies 352E. Explore the philosophical and historical context of Confucianism, from its origins in ancient China through the early empire and beyond. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 32), 372L, Core Text and Ideas 375 (Topic: World of Confucians), Religious Studies 352 (Topic 10), 352E. Prerequisite: Upper-division standing.

### **ANS 372M. Taiwan: From Coloniality to Postcoloniality.**

Examine how Taiwan has transformed itself since the end of Japanese colonialism in 1945 through literature, films, and other cultural products, such as popular music and arts, in postcolonial Taiwan. Three lecture hours a week for one semester. Asian Studies 372 (Topic 37) and 372M may not both be counted. Prerequisite: Upper-division standing.

### **ANS 372N. Japanese Concepts of Body and Self.**

Same as Anthropology 324L (Topic 69) and Religious Studies 352S. Exploration of anthropological literature describing Japanese conceptions of self and body, and analysis of the intersection of these conceptions of self with Japanese ideas about religion, morality, aging, and medicine. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Japanese Concepts of Body and Self), 324L (Topic 69), Asian Studies 372 (Topic 41), 372N, Religious Studies 352 (Topic 8), 352S. Prerequisite: Upper-division standing.

### **ANS 372P. South Asian Migration to the United States.**

Same as Asian American Studies 325J, History 365G (Topic 14), and Women's and Gender Studies 340 (Topic 35). Examines the South Asian diaspora in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: South Asian Migration to the United States), 325 (Topic 9), 325J, Asian Studies 372 (Topic: South Asian Migration to the United States), 372 (Topic 43), 372P, History 365G (Topic: South Asian Migration to the United States), 365G (Topic 14), Women and Gender Studies 340 (Topic: South Asian Migration to the United States), 340 (Topic 35). Prerequisite: Upper-division standing.

### **ANS 372Q. Women and Wealth in South Asia.**

Same as History 350L (Topic 94) and Women's and Gender Studies 340 (Topic 68). Addresses the questions surrounding poverty of South Asian women by combining legal, political and social histories of the subcontinent over four centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic: Women and Wealth in South Asia), 372 (Topic 47), 372Q, History 350L (Topic: Women and Wealth in South Asia), 350L (Topic 94), Women's and Gender Studies 340 (Topic: Women and Wealth in South Asia), 340 (Topic 68). Prerequisite: Upper-division standing.

### **ANS 372R. Japanese Popular Culture: Anime, Manga, and the Otaku.**

Same as Asian American Studies 320J. Examine a wide variety of Japanese popular media within the historical context during which these unique cultural forms developed. Focus on the popular manga and anime

Japan has exported since becoming an economic superpower in the 1980s, the utopian/dystopian expression in Japanese sci-fi narratives of this era, and the complex interplay of gender and technology in the new post-human societies these narratives envision. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic: Jpn Pop Cul:Anime/Manga/Otaku), 320J, Asian Studies 372 (Topic: Jpn Pop Cul:Anime/Manga/Otaku), 372R. Prerequisite: Upper-division standing.

### **ANS 373C. Decoding Classical Chinese Poetry.**

Same as Comparative Literature 323 (Topic 41). Introduction to the classical Chinese poetic tradition from the seventh century B.C.E. through the ninth century C.E., focusing on the literary, cultural, historical, social, political, philosophical, and religious background against which representative works arose. Conducted in English and all readings will be in English translation. Knowledge of the Chinese language is not required. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 10), 373C, Comparative Literature 323 (Topic 41). Prerequisite: Upper-division standing.

### **ANS 373D. Popular Literature and Culture in Modern China.**

Examine modern Chinese literature and culture in the People's Republic of China, Taiwan, and Hong Kong from the popular culture perspective. Three lecture hours a week for one semester. Asian Studies 372 (Topic 28) and 373D may not both be counted. Prerequisite: Upper-division standing.

### **ANS 373E. Modern Japanese Literature in Translation.**

Conducted in English. Analyze literature written by Japanese authors in the twentieth and twenty-first centuries with attention to a work's content, style, and form, as well as the socio-historical context of its production and reception. Three lecture hours a week for one semester. Asian Studies 372 (Topic 34) and 373E may not both be counted. Prerequisite: Upper-division standing.

### **ANS 373F. Suicide in Japanese Fiction.**

Conducted in English. Examine Japanese literary and visual culture, including poetry, novels, plays, film, and manga, to analyze how artists grapple with themes of suicide in their works and lives in response to personal and national tragedies. Three lecture hours a week for one semester. Asian Studies 372 (Topic 35) and 373F may not both be counted. Prerequisite: Upper-division standing.

### **ANS 373G. Epics and Heroes of India.**

Same as Ancient History and Classical Civilization 330 (Topic 2), Core Texts and Ideas 344, and History 350L (Topic 54). Focus on India's classical epics, the Mahabharata and the Ramayana, with emphasis placed on understanding the epic characters in relation to the heroic traditions of premodern India, as well as on the role of the epics in contemporary Indian political and religious culture. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic 2), Asian Studies 372 (Topic 40), 373G, Core Texts and Ideas 345 (Topic 11), 344, History 350L (Topic 54). Prerequisite: Upper-division standing.

### **ANS 373J. Chinese Film and Literature.**

Analyze selected literary and cinematic texts from China in the last century. Explore how the Chinese people encounter modernity and cope with its consequences. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 6), 373J, Comparative Literature 323 (Topic: Chinese Film and Literature). Prerequisite: Upper-division standing.

### **ANS 374C. Buddhist Art.**

Same as Art History 348N and Religious Studies 341T. Explores the development of Buddhist art in South Asia, the land of its origin as well as its spread elsewhere. Focus on the question of "what is" Buddhist art. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 348N, 372 (Topic: Buddhist Art), Asian Studies 372 (Topic 24), 374C, Religious Studies 341 (Topic 8), 341T.

### **ANS 374D. Gender and Art in the Muslim World.**

Same as Islamic Studies 373 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 31), Middle Eastern Studies 342 (Topic 40), Religious Studies 358W, and Women's and Gender Studies 340 (Topic 62). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 46), 374D, Islamic Studies 373 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 31), Middle Eastern Studies 342 (Topic 40), Religious Studies 358 (Topic 20), 358W, Women's and Gender Studies 340 (Topic 62). Prerequisite: Upper-division standing.

### **ANS 374E. Chinese Literati Art.**

Same as Art History 372 (Topic 1). Three lecture hours a week for one semester. Only one of the following may be counted: Art History 372 (Topic: Chinese Literati Art), 372 (Topic 1), Asian Studies 361 (Topic: Chinese Literati Art), 372 (Topic 42), 374E. Prerequisite: Upper-division standing.

### **ANS 678H. Honors Tutorial Course.**

Three lecture hours a week for two semesters. Prerequisite: For 678HA, admission to the Asian Studies Honors Program; for 678HB, Asian Studies 678HA.

### **ANS 379. Capstone Seminars in Asian Studies.**

Three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

**Topic 1: Writing and Authority in Early China.** Only one of the following may be counted: Asian Studies 372 (Topic: Writing and Authority: Early China), 379 (Topic 1), History 364G (Topic: Writing and Authority: Early China).

**Topic 3: The Art of the Body in India.** Only one of the following may be counted: Anthropology 322M (Topic: Art of the Body in India), Asian Studies 372 (Topic: Art of the Body in India), 379 (Topic 3), and Women's and Gender Studies 340 (Topic: Art of the Body in India).

**Topic 4: Indian Poetry and Religions.** Same as Religious Studies 341P. Explores the intersections of religion and poetry in the history of Indian literature as expressed in multiple settings and variations including hymns, chants, bhajans, poetic narratives, and new poetic conventions that deal with caste and gender identities. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 379 (Topic 4), Religious Studies 341 (Topic 11), 341P. Additional prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

**Topic 6: Transnational Korea.** Same as Asian American Studies 330F. Recent and contemporary manifestations of the Koreans in the world and the world in the Koreans. Subjects include labor and marriage migration, educational sojourning, transnational adoption, tourism, international sport, corporate expatriation, and media flows. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Transnational Korea), Asian American Studies 330 (Topic 5), 330F, Asian Studies 379 (Topic 6). Additional prerequisite: For Asian studies majors, twelve semester

hours of upper-division coursework in Asian studies; for others, upper-division standing.

**Topic 8: Radical Religion: Ascetics and Holy Persons.** Same as Religious Studies 375S (Topic 4). Explores asceticism and the concepts, practices, and goals associated with this radical way of life through case studies from various religions. Subjects include theories of the body and of culture, as well as issues of social status, gender, devotion, and violence. Only one of the following may be counted: Asian Studies 379 (Topic: Radical Religion: Ascetics), 379 (Topic 8), Religious Studies 375S (Topic: Radical Religion: Ascetics), 375S (Topic 4).

**Topic 9: Art of Autobiography in Japan.** Examines autobiographies written by prominent artists and intellectuals in Japan from the tenth century to the present. Subjects include the authors' lives and legacies, and how these works are informed by both the historical and cultural contexts in which they were written and by the genre itself. All reading, writing, and discussion will be in English. Asian Studies 379 (Topic: Art of Autobiography in Japan) and 379 (Topic 9) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 10: Comparing Religions.** Same as Religious Studies 375S (Topic 2). A discussion of major comparative approaches in the study of religion. Only one of the following may be counted: Asian Studies 340 (Topic: Introduction to Comparative Religion), 340 (Topic 11), 379 (Topic 10), Religious Studies 373 (Topic: Introduction to Comparative Religion), 375S (Topic 2). Additional prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing and at least six semester hours of coursework in religious studies.

**Topic 11: The Cultural Outsider: Memoirs of East Asia.** Same as History 340U. Focus is on the cultural outsider's perceptions of East Asia in greater "travel" dating from as early as Marco Polo up to works published in contemporary America. Selected memoirs and travelogues are presented from the perspective of the cultural outsider, written by missionaries, colonizers, journalists, POW's, scholars, students, and tourists. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 379 (Topic: Cul Outsider: Memoirs/E Asia), 379 (Topic 11), History 340U, 364G (Topic: Cul Outsider: Memoirs/E Asia). Additional prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

**Topic 12: Gender and Labor in Global Asia.** Same as Anthropology 324P and Women's and Gender Studies 340 (Topic 93). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Gender & Labor in Global Asia), 324P, Asian Studies 379 (Topic: Gender & Labor in Global Asia), 379 (Topic 12), Women's and Gender Studies 340 (Topic: Gender & Labor in Global Asia), 340 (Topic 93). Additional prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

**Topic 13: Cultural Memory and the Classic Chinese Novel.** Same as Comparative Literature 323 (Topic 57). Examine the metaphors and mythology from Chinese cultural memory that are present in classic novels, within literary and socio-historical contexts. Explore a cross-section of influential works from classical literature and the major founding schools of Chinese thought. Only one of the following may be counted: Asian Studies 379 (Topic: Cul Mem/Classic Chinese Nov), 379 (Topic 13), Comparative Literature 323 (Topic: Cul Mem/Classic Chinese Nov), 323 (Topic 57), Liberal Arts Honors 350 (Topic: Cul Mem/Classic Chinese Nov). Additional prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

**Topic 15: The Partition of India in History and Literature.** Same as History 350L (Topic 98). Examine the causes and effects of the partition of British India in 1947 into the nation-states of India and

Pakistan. Only one of the following may be counted: Asian Studies 361 (Topic: Partition of India Hist/Lit), 379 (Topic 15), History 350L (Topic: Partition of India Hist/Lit), 350L (Topic 98), Islamic Studies 372 (Topic: Partition of India Hist/Lit). Additional prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

## Graduate Courses

### **ANS 180C, 380C. Conference Course in Asian Studies.**

Supervised individual study of selected problems in Asian studies. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor on form obtained from the graduate coordinator.

### **ANS 381. Topics in Chinese Culture and Society.**

Study of various aspects and periods of Chinese culture and society. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Advanced Readings in Chinese Politics.** Same as Government 390L (Topic 19: Advanced Readings in Chinese Politics). Additional prerequisite: Twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

### **ANS 382K. Topics in Korean Culture and Society.**

Studies of various aspects and periods of Korean culture and society. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

### **ANS 383. Topics in Japanese Culture and Society.**

Study of various aspects and periods of Japanese culture and society. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 4: Japanese Politics.** Same as Government 390L (Topic 20: Japanese Politics). Additional prerequisite: Twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

**Topic 5: Japanese Religion.** Additional prerequisite: Graduate standing.

### **ANS 384. Topics in South Asian Culture and Society.**

Study of various aspects and periods of South Asian culture and society. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 2: Communalism in Colonial India.** Same as History 382N (Topic 4: Communalism in Colonial India).

**Topic 3: Ethnicity, Religion, and Politics in South Asia.** Same as Government 390L (Topic 17: Ethnicity, Religion, and Politics in South Asia). Additional prerequisite: Twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

**Topic 5: Social and Religious Reform in Modern India.** Same as History 382N (Topic 1: Social and Religious Reform in Modern India). Only one of the following may be counted: Asian Studies (Topic 5), History 382N (Topic 1), Religious Studies 394T (Topic: Social and Religious Reform in Modern India).

**Topic 6: South Asian Diaspora.**

**Topic 7: Middle Indic Languages and Literature.** Survey of the Middle Indic languages of South Asia, the communities that used these languages, and the literature composed in them. Asian Studies 384 (Topic: Middle Indic Languages and Literature) and 384 (Topic 7) may not both be counted. Additional prerequisite: Basic reading comprehension of Sanskrit equivalent to one academic year's study of Sanskrit.

**Topic 8: The Body in Indian Medicine and Myth.** Same as Religious Studies 394T (Topic 1). Examines issues of embodiment in South Asia in various life stages, including conception, infancy, childhood, adulthood, and death drawn from various historical periods, medical traditions, religious narratives, and sociological and anthropological studies. Only one of the following may be counted: Asian Studies 384 (Topic: Body in Indian Medicine/Myth), 384 (Topic 8), Religious Studies 394T (Topic: Body in Indian Medicine/Myth), 394T (Topic 1).

### **ANS 384C. Core Studies in South Asia.**

An introduction to research methods used in South Asian studies. Three lecture hours a week for one semester. Asian Studies 384 (Topic: Core Studies in South Asia) and 384C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **ANS 384E. Asceticism.**

Examines ascetic contexts of various religious traditions, definitions of asceticism, the relationship between ascetic beliefs and ascetic practices, and the benefits and risks of using a comparative approach to study asceticism. Three lecture hours a week for one semester. Asian Studies 384 (Topic: Asceticism) and 384E may not both be counted. Prerequisite: Graduate standing.

### **ANS 384F. Folklore and Oral Performance in South Asia.**

Three lecture hours a week for one semester. Asian Studies 384 (Topic: Folklore and Oral Performance in South Asia) and 384F may not both be counted. Prerequisite: Graduate standing.

### **ANS 384G. Gender and the Body in South Asian Text and Practice.**

An introduction to how gender is used as a category of analysis across the humanities and social science disciplines; and how the body is used as an object for analysis. Three lecture hours a week for one semester. Asian Studies 384 (Topic: Gender and the Body in South Asian Text and Practice) and 384G may not both be counted. Prerequisite: Graduate standing.

### **ANS 384P. Theatre, Gender, and Performance in South Asia.**

Three lecture hours a week for one semester. Asian Studies 384 (Topic: Theatre, Gender, and Performance in South Asia) and 384P may not both be counted. Prerequisite: Graduate standing.

### **ANS 385. Topics in Chinese Language and Literature.**

Study of various aspects and periods of Chinese language and literature. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Chinese Film and Literature.**

**Topic 3: Modern Chinese Literature.**

### **ANS 385D. Development of the Literary Field in Modern China.**

Applies French theorist Pierre Bourdieu's work on cultural production to the study of the development of modern and contemporary literature in China and Taiwan. Three lecture hours a week for one semester. Asian Studies 385 (Topic: Development of the Literary Field in Modern China) and 385D may not both be counted. Prerequisite: Graduate standing.

**ANS 385H. High and Popular Culture in Modern Chinese Societies.**

Explores the production and consumption of elitist (high) and popular cultures in modern Chinese societies. Three lecture hours a week for one semester. Asian Studies 385 (Topic: High and Popular Culture in Modern Chinese Societies) and 385H may not both be counted. Prerequisite: Graduate standing.

**ANS 385M. Modern and Postmodern Chinese Literary Culture.**

Examines the complex phenomena of modernism and postmodernism in literature and the arts in China, Taiwan, and Hong Kong. Three lecture hours a week for one semester. Asian Studies 385 (Topic: Modern and Postmodern Chinese Literary Culture) and 385M may not both be counted. Prerequisite: Graduate standing.

**ANS 385S. Critical Scholarship on Modern Chinese Literature.**

Survey of English-language critical scholarship on modern Chinese literature. Three lecture hours a week for one semester. Asian Studies 385 (Topic: Critical Scholarship on Modern Chinese Literature) and 385S may not both be counted. Prerequisite: Graduate standing.

**ANS 386. Topics in Japanese Language and Literature.**

Study of various aspects and periods of Japanese language and literature. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 2: Modern Japanese Literature.** Asian Studies 386 (Topic 2) and Japanese 384 (Topic 3: Modern Japanese Literature) may not both be counted.

**ANS 387K. Topics in Korean Language and Literature.**

Studies in various aspects and periods of Korean language and literature. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**ANS 388. Topics in South Asian Language and Literature.**

Study of various aspects and periods of South Asian language and literature. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**ANS 388C. Critical Approaches to the Study of South Asian Texts.**

Introduction to analyzing South Asian literature through the exploration of Indian "classics" on connoisseurship, reader response, style, and suggestion, as well as modern and contemporary works on literary theory from the West. Three lecture hours a week for one semester. Asian Studies 388 (Topic: Critical Approaches to the Study of South Asian Texts) and 388C may not both be counted. Prerequisite: Graduate standing.

**ANS 388M. Translating India.**

Introduction to literary translation from a wide range of Euro-American and South Asian stances and viewpoints, focusing on the political nature of the act and the art of translation in colonial and post-colonial contexts. Three lecture hours a week for one semester. Asian Studies 384 (Topic: Translating India) and 388M may not both be counted. Prerequisite: Graduate standing.

**ANS 389C. Topics in Asian History.**

Studies in various historical periods of different Asian countries or regions. Topics may be comparative or single-area. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Japan Since 1945.** Three lecture hours a week for one semester. Asian Studies 383 (Topic 2: Japan Since 1945) and 389C (Topic 1) may not both be counted. Additional prerequisite: Graduate standing.

**Topic 2: War and Defeat in Japanese History and Memory.** Interdisciplinary exploration of the Japanese experience and memory of the Pacific War, including topics such as Hiroshima, comfort women, the US occupation, and contemporary controversies surrounding textbooks and the Yasukuni Shrine. Three lecture hours a week for one semester. Asian Studies 383W and 389C (Topic 2) may not both be counted. Additional prerequisite: Graduate standing.

**ANS 390. Topics in Asian Studies.**

Study of various Asian studies-related topics that do not focus on any single geographic region. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 2: Authoritarian Political Systems.** Same as Government 390L (Topic 7). Comparative study of authoritarian and totalitarian patterns of government, past and present, Western and non-Western; special emphasis on Communist and Fascist systems.

**Topic 6: Intellectual History of Indo-Iranian Islam.** Same as History 388K (Topic 2) and Middle Eastern Studies 381 (Topic 37).

**Topic 7: Feminist Theory.** Asian Studies 390 (Topic: Feminist Theory) and 390 (Topic 7) may not both be counted.

**Topic 8: Asian Modernities.** Theory and criticism in the study of Asia, with particular attention to the origins and rise of modern comparative literary and cultural studies. Asian Studies 384 (Topic: Asian Modernities) and 390 (Topic 8) may not both be counted.

**Topic 9: Space and Place-Making In East Asia.** Examines developmentalism, postcolonialism, neoliberalism, and compressed modernity in East and Southeast Asia. Three lecture hours a week for one semester.

**Topic 10: Anthropology of East Asia.** Same as Anthropology 391C. Explore contemporary anthropological research on East Asia, with a focus on a set of broad subjects (money, mobilities, cosmologies, media, etc.), and a consideration of what constitutes "the anthropological approach" to these subjects. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 391 (Topic: Anthropology of East Asia), 391C, Asian Studies 390 (Topic: Anthropology of East Asia), 390 (Topic 10). Additional prerequisite: Graduate standing.

**ANS 390C. Core Readings in Modern East Asia.**

Various aspects of East Asian history, culture, and society. Designed for new graduate students in the Department of Asian Studies. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**ANS 390M. Aesthetic Modernism in East Asia.**

Examines modernist trends in literature and the arts since the early twentieth century in places such as China, Japan, Taiwan, South Korea, Hong Kong, and Vietnam. Three lecture hours a week for one semester. Asian Studies 390 (Topic: Aesthetic Modernism in East Asia) and 390M may not both be counted. Prerequisite: Graduate standing.

**ANS 391. Asia and the World.**

Study of various subjects with Asian studies-related content. Three lecture hours a week for one semester. May be repeated for credit when

the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Comparative Ethnic Conflict.** Same as Government 390L (Topic 21: Comparative Ethnic Conflict). Additional prerequisite: Twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

**Topic 3: European Imperialism: British Empire.** Same as History 380L (Topic 1) and Middle Eastern Studies 385 (Topic 12). Study of the British empire in the Middle East, Asia and Africa. Only one of the following may be counted: Asian Studies 391 (Topic 3), History 380L (Topic 1), Middle Eastern Studies 385 (Topic 12). Additional prerequisite: Graduate standing.

**Topic 4: Gender, Ethnicity, and Nationalism.** Same as Anthropology 391 (Topic 32: Gender, Ethnicity, and Nationalism).

**Topic 6: International Business Fellows Seminar.** Same as Latin American Studies 381 (Topic 8), Middle Eastern Studies 380, and Russian, East European, and Eurasian Studies 380. Multidisciplinary seminar for students in area studies, business administration, law, and public policy. The faculty includes both academics and business leaders. Only one of the following may be counted: Asian Studies 391 (Topic 6), International Business 395 (Topic: International Business Fellows Seminar), Latin American Studies 381 (Topic 8), Middle Eastern Studies 380, Public Affairs 388K (Topic: International Business Fellows Seminar), Russian, East European, and Eurasian Studies 380.

**Topic 7: Women in Islamic Societies.** Same as History 382N (Topic 2: Women in Islamic Societies) and Middle Eastern Studies 385 (Topic 7: Women in Islamic Societies). Only one of the following may be counted: Asian Studies 391 (Topic 7), History 382N (Topic 2), Middle Eastern Studies 385 (Topic 7).

**Topic 8: Sovereignty in Islam: Theory & Practice.** Same as Religious Studies 390T (Topic 2). A historical and comparative survey of the concepts and rituals of sovereignty in Muslim societies across the Middle East, Central Asia, and South Asia, with an emphasis on the pre-modern era. Only one of the following may be counted: Asian Studies 391 (Topic: Sovereignty in Islam: Theory & Practice), 391 (Topic 8), History 381 (Topic: Sovereignty in Islam: Theory & Practice), Middle Eastern Studies 385 (Topic: Sovereignty in Islam: Theory & Practice), 386 (Topic: Sovereignty in Islam: Theory & Practice), Religious Studies 390T (Topic: Sovereignty in Islam: Theory & Practice), 390T (Topic 2).

#### **ANS 391H. Ethnographies of Global Asia.**

Same as Anthropology 391 (Topic 34). Methods and ethnographic study of transnational Asia and the Asian diaspora. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 391 (Topic: Ethnography of Global Asia), 391 (Topic 34), Asian Studies 384 (Topic: Ethnography of Global Asia), 391H. Prerequisite: Graduate standing.

#### **ANS 392. Topics in the Social Science of Asia.**

Examination of topics relating to the anthropology, sociology, politics, or economics of one or more Asian countries. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

#### **ANS 394. Tools and Methods in Asian Research.**

Study of the major research tools and methods used in current Asian scholarship. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **ANS 395. Proseminar: Core Readings and Methods in Asian Studies.**

Various theories and methods used in the field of Asian studies, including disciplinary history, controversies, and the diversity of approaches within the field. Designed for new graduate students in the Department of Asian Studies. Three lecture hours a week for one semester. Asian Studies 390 (Topic: Proseminar in Asian Studies) and 395 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ANS 397C, 697C, 997C. Comprehensive Examination Preparation.**

Restricted to doctoral students in the Department of Asian Studies. Individual instruction. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and written consent of instructor on a form obtained from the graduate coordinator.

#### **ANS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Asian studies and consent of the graduate adviser; for 698B, Asian Studies 698A.

#### **ANS 398L. Pedagogy for Language Instruction.**

Individual instruction in language pedagogy. Individual instruction. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, appointment as a teaching assistant in a language course in the Department of Asian Studies, and consent of the graduate adviser.

#### **ANS 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Asian studies and consent of the graduate adviser.

#### **ANS 398T. Supervised Teaching in Asian Studies.**

Teaching under the close supervision of a faculty member. Includes weekly group meetings with the instructor, individual consultation, and reports throughout the teaching period. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, and written consent of instructor on a form obtained from the graduate coordinator.

#### **ANS 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

### **Professional Courses**

## **Astronomy Courses**

### **Astronomy: AST**

#### **Lower-Division Courses**

#### **AST 301 (TCCN: ASTR 1303, PHYS 1303). Introduction to Astronomy.**

General introduction to astronomy for nonscience majors. The solar system, stars, galaxies, and cosmology. Three lecture hours a week for one semester. Only one of the following may be counted: Astronomy 301, 302, 303, 307. May not be counted toward a degree in the College of Natural Sciences.

#### **AST 101L. Astronomy Discovery Laboratory.**

For nonscience majors. Hands-on projects in observational astronomy and related laboratory disciplines. Students work in small groups.

Three laboratory hours a week for one semester. May not be counted by students with credit for Astronomy 103L. Prerequisite: Credit or registration for Astronomy 301.

### **AST 302. Self-Paced Introduction to Astronomy.**

General, self-paced introduction to astronomy for nonscience majors. The solar system, stars, galaxies, and cosmology. Self-paced. Only one of the following may be counted: Astronomy 301, 302, 303, 307. May not be counted toward a degree in the College of Natural Sciences.

### **AST 303. Introduction to Astronomy with Celestial Observations.**

General introduction to astronomy for nonscience majors. The solar system, stars, galaxies, and cosmology. Introduces students to the night sky and includes some observational activities. Three lecture hours a week for one semester. Only one of the following may be counted: Astronomy 301, 302, 303, 307. May not be counted toward a degree in the College of Natural Sciences.

### **AST 103L (TCCN: ASTR 1103, PHYS 1103). Astronomical Observations.**

For nonscience majors. Observations of the night sky with the naked eye and small telescopes; indoor laboratory activities. Two laboratory hours a week for one semester. May not be counted by students with credit for Astronomy 101L, 302, or 303. Prerequisite: Credit or registration for Astronomy 301 or 307.

### **AST 104. Undergraduate Astronomy Seminar.**

Designed for astronomy majors. Discussions about current astronomical research, with different topics emphasized each semester. One lecture hour a week for one semester. May be repeated twice for credit when the topics vary. Offered on the pass/fail basis only.

### **AST 307. Introductory Astronomy.**

Introduction to astronomy for science and engineering students. The solar system, stars, galaxies, and cosmology. Three lecture hours a week for one semester. Only one of the following may be counted: Astronomy 301, 302, 303, 307. Prerequisite: Mathematics 305G or the equivalent or consent of instructor; high school trigonometry and physics are recommended.

### **AST 309. Topics in Astronomy for Nonscience Students.**

Selected topics in modern astronomy: solar system, galaxies, peculiar stars, cosmology, and others. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences. May be repeated for credit when the topics vary.

**Topic 1: Popular Astronomy.** Survey of topics of greatest interest to the public and the media, including new planets, black holes, dark matter, dark energy, and the origin of the Universe.

### **AST 309C. Birth of Stars and Planets.**

Study of how stars and planets form, including discussions on the implications for the formation of our own solar system. Designed for non-College of Natural Sciences majors. Three lecture hours a week for one semester. Astronomy 309 (Topic: Birth of Stars and Planets) and 309C may not both be counted. May not be counted toward a degree in the College of Natural Sciences.

### **AST 309G. Popular Astronomy for Nonscience Students.**

Subjects include new planets, neutron stars, supernovae, gamma-ray bursts, black holes, dark matter, dark energy, and the origin of the universe. Designed for non-College of Natural Sciences majors. Three lecture hours a week for one semester. Astronomy 309 (Topic 1: Popular

Astronomy) and 309G may not both be counted. May not be counted toward a degree in the College of Natural Sciences.

### **AST 309L. Search for Extraterrestrial Life.**

Origin of life in the solar system, existence of other planetary systems, possibilities and techniques for detection of and communication with other intelligences. Designed for non-College of Natural Sciences majors. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences.

### **AST 309N. Lives and Deaths of Stars.**

How stars live and die; extremes of stars and their life cycles. Exotic objects such as white dwarfs, supernovae, neutron stars, pulsars, and black holes. Specific subjects may vary with instructor. Designed for non-College of Natural Sciences majors. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences.

### **AST 309P. Astronomy in Science Fiction.**

The use of astronomy and other sciences in science fiction literature. Critical analysis of selected novels as to the validity of the astronomy used. Designed for non-College of Natural Sciences majors. Three lecture hours a week for one semester.

### **AST 309Q. Time and the Cosmos.**

From the beginning of time in the Big Bang to the end of time in the black hole. Includes the early universe, the formation and evolution of single and double stars, and the supercompact objects they eventually become: white dwarfs, pulsars, and black holes. Designed for non-College of Natural Sciences majors. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences.

### **AST 309R. Galaxies, Quasars, and the Universe.**

Galaxies, quasars, giant black holes; cosmic evolution; the origin and future of the universe. Designed for non-College of Natural Sciences majors. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences.

### **AST 309S (TCCN: ASTR 1304, ASTR 1404, PHYS 1304, PHYS 1404). The Solar System.**

The nature, origin, and evolution of our solar system, including planets, moons, and other bodies. Designed for non-College of Natural Sciences majors. Three lecture hours a week for one semester. May not be counted toward a degree in the College of Natural Sciences.

### **AST 309T. The Milky Way Galaxy.**

Our spiral system of stars, gas, and dust; star formation. Designed for non-College of Natural Sciences majors. Three lecture hours a week for one semester.

### **AST 110C, 210C, 310C. Conference Course in Astronomy.**

Restricted enrollment; contact the department for permission to register. Independent research course with supervision by astronomy faculty member or research scientist. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; hours to be arranged. May be repeated for credit.

### **AST 110K, 210K, 310K. Topics in Astronomy Research.**

Designed for science and engineering majors. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor or adviser.

**AST 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S.**  
**Topics in Astronomy.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Astronomy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## Upper-Division Courses

### AST 321. Current Problems in Astronomy.

For nonscience majors. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; and Astronomy 301, 302, 303, or consent of instructor.

### AST 324. Origins: The Universe, Stars, Planets, and Life.

For nonscience majors. Cosmic origins from the Big Bang to life, and the connections among the origins of stars, planets, and life. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Astronomy 301, 302, 303, or consent of instructor.

### AST 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S.

**Topics in Astronomy.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Astronomy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### AST 350L. History and Philosophy of Astronomy.

Historical influence of astronomical concepts on social, economic, literary, and scientific life; the place of astronomy in society. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Astronomy 301, 302, 303, or consent of instructor.

### AST 351. Astronomical Instrumentation.

A hands-on course in computer-controlled optical instrumentation. Intended for natural science and engineering students interested in the practical aspects of instrument design and construction. Includes optics and optical design, electronics, machining and mechanical design, and computer interfacing. Students work in groups and as teams to design a computer-controlled optical instrument. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing in the College of Natural Sciences or the Cockrell School of Engineering, or consent of instructor.

### AST 352K. Stellar Astronomy.

Properties of stars and starlight: principles of radiation; interpretation of stellar spectra. Observational techniques such as photometry, spectroscopy, and telescopes and detectors; variable stars; binary stars. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and one of the following: Physics 301 and 303L; 301 and 316; 303K and 303L; or 303K and 316.

### AST 352L. Positional, Dynamical, and Kinematical Astronomy.

Coordinate systems and time; stellar positions and motions; the kinematics and dynamics of star clusters and galaxies. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Mathematics 427K.

### AST 152M. Stellar Astronomy Laboratory.

An introduction to practical observational techniques in astronomy, designed for astronomy majors or advanced students in a physical science. Exercises on the spectroscopy, photometry, and positions of stars using a sixteen-inch telescope on campus. Three laboratory hours a week for one semester. With consent of instructor, may be repeated for credit. Prerequisite: Physics 316 and 116L; credit or registration for Astronomy 352K is recommended.

### AST 353. Astrophysics.

Survey of the physics of stellar and nonstellar radiation laws, stellar atmospheres and interiors; high-energy astrophysics. Designed for science and engineering majors. Three lecture hours a week for one semester. Prerequisite: One of the following: Physics 301 and 303L; 301 and 316; 303K and 303L; or 303K and 316.

### AST 358. Galaxies and the Universe.

Our galaxy and its constituents; stars and interstellar matter. Properties of other galaxies; galaxy interactions and mergers; expansion and evolution of the universe. Designed for science and engineering majors. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and one of the following: Physics 301 and 303L; 301 and 316; 303K and 303L; or 303K and 316.

### AST 364P. Planetary Systems.

Modern studies of the solar system, including properties of the planets and smaller bodies, and the origin of planetary systems. Three lecture hours a week for one semester. Astronomy 364 and 364P may not both be counted. Prerequisite: Upper-division standing; Physics 316 or 303L; and Astronomy 307, 352K, or 353.

### AST 367M. Physical Science: Methods of Astronomy.

Same as Physical Science 367M. An introductory, self-paced course in the methods of astronomy that emphasizes learning astronomical principles through observations. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Arts, Plan I, degree with a major in astronomy. Prerequisite: Upper-division standing and nine semester hours of coursework in mathematics and/or science, including one of the following: Physical Science 303, 304, Astronomy 301, 302, 303. Equivalent preparation in mathematics, physics, chemistry, or earth sciences may be substituted with written approval of the instructor.

### AST 175, 275, 375. Topics in Astronomy Research.

Designed for science and engineering majors. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor or adviser.

### AST 175C, 275C, 375C. Conference Course in Astronomy.

Restricted enrollment; contact the department for permission to register. Independent research course with astronomy faculty member or research scientist. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; hours to be arranged. May be repeated for credit.

### AST 376. Special Topics in Advanced Astronomy.

Designed for science majors. Three lecture hours a week for one semester. Up to six semester hours may be counted toward the major requirement for the Bachelor of Arts with a major in astronomy. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

**Topic 1: Observational Methods in Astronomy.** A hands-on course in astronomical observations and data analysis. Explores astronomical observing techniques, data reduction and analysis, and interpretation

of results. The coursework will include regular exercises in obtaining and analyzing data to solve currently relevant astronomical problems. Additional prerequisite: Astronomy 376R with a grade of at least C-

### **AST 376C. Cosmology.**

The laws of physics applied to the Universe at large: its featureless beginning in the Big Bang, its fundamental constituents including radiation, atoms, and dark matter; the discoveries of universal expansion and dark energy, and a structure reflected in the web of galaxies.

Designed for science and engineering majors. Three lecture hours a week for one semester. Astronomy 376 (Topic: Cosmology) and 376C may not both be counted. Prerequisite: Upper-division standing, and one of the following: Physics 301 and 303L; 301 and 316; 303K and 303L; or 303K and 316.

### **AST 376R. A Practical Introduction to Research Methods.**

Restricted to science and engineering majors. Practical exercises including analysis of imaging data, visualization, programming exercises with Python, IDL or other languages, statistical analyses, and training for papers and oral presentations. Three lecture hours a week for one semester. Astronomy 376 (Topic: Practical Intro to Research) and 376R may not both be counted. Prerequisite: Mathematics 305G or the equivalent; prior computing experience and an introductory astronomy course are recommended.

### **AST 379H. Honors Tutorial Course.**

Restricted to science majors approved to graduate with honors. Research project and thesis for students electing to take the honors program in astronomy. Conference course. May be repeated once for credit. Prerequisite: Consent of the departmental honors adviser.

## **Graduate Courses**

### **AST 380E. Radiative Processes and Radiative Transfer.**

Classical and quantum radiative processes relevant to astrophysics; basic radiative transfer. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **AST 381. Topics in Theoretical Astrophysics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **AST 381C. Gravitational Dynamics.**

Orbital, collective, and tidal effects of astronomical objects, such as planets, stars, galaxies, and interstellar medium, under the influence of a gravitational field. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **AST 381S. Seminar in Theoretical Astrophysics.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **AST 382C. Astrophysical Gas Dynamics.**

The basic principles of compressible gas dynamics and magnetohydrodynamics, developed and applied in an astrophysical context to a wide range of astronomical phenomena. Three lecture hours a week for one semester. Prerequisite: Graduate standing in astronomy or physics, or graduate standing and consent of instructor.

### **AST 382D. Astronomical Data Analysis.**

Restricted to Astronomy majors. Apply statistical analysis techniques to astronomical data. Examine probability theory, parameter estimation, Bayesian statistics, Markov Chain Monte Carlo methods, and model

fitting. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of department.

### **AST 383. Topics in Stellar Astronomy.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **AST 383C. Stellar Atmospheres.**

Observational properties of stellar atmospheres; theoretical calculations of stellar atmospheres and stellar spectra. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **AST 383D. Stellar Structure and Evolution.**

Theoretical calculations of the structure and evolution of stars. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **AST 383L. Seminar in Planets and Life.**

Discussions concerning the solar system; the detection, formation, and evolution of planets; planetary atmospheres, climates, and meteorology; and various aspects of life in the universe. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **AST 383T. Seminar in Stellar Astronomy.**

Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **AST 384T. Current Studies in Astronomy for Teachers.**

Lectures and laboratory work in astronomy for elementary and secondary school teachers of earth science, physical science, or astronomy. Three lecture hours and twelve laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **AST 385. Conference Course.**

Three conference hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **AST 185C. Conference on Modern Astronomy.**

A broad introduction to the research being conducted by the faculty and research staff in astronomy. One lecture hour a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **AST 386. Extragalactic Astronomy.**

Topics include classification of galaxies, distance indicators, luminosities, dimensions, colors, spectra, polarization, radio emission, rotation, masses; formation and evolution; pairs, groups, clusters, superclusters, large-scale distribution, redshifts, cosmology. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **AST 386C. Properties of Galaxies.**

Observational properties of galaxies and their interpretation; includes a discussion of the Milky Way galaxy. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **AST 386S. Seminar in Extragalactic Astronomy.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**AST 389. Dynamical Astronomy.**

Topics include planetary and stellar motions, asymptotic representations of quasi integrals, galactic dynamics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**AST 390F. Stars, Planets, and Interstellar Matter Seminar.**

Restricted to astronomy majors. Present and discuss current research broadly related to stars, planets in the Solar System, extrasolar planets, and interstellar matter. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of department.

**AST 390G. Galaxies and Cosmology Seminar.**

Restricted to astronomy majors. Present and discuss current research on properties of galaxies, galaxy evolution, cosmology, and related subjects. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of department.

**AST 391. Graduate Research in Astronomy.**

Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in astronomy and consent of instructor.

**AST 392D. Mathematical Methods of Astrophysics.**

Statistics, error theory, least squares and curve fitting, numerical methods, approximation theory, Fourier transforms, sampling theory, time-series analysis. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**AST 392E. Optical Techniques in Astronomy.**

Topics include photometry, spectroscopy, direct imaging, interferometry and polarimetry at ultraviolet, visual, and infrared wavelengths. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**AST 392G. Observing Techniques in Astronomy.**

Survey of techniques used at the McDonald Observatory. Includes workshop at the observatory. Three lecture hours a week for one semester. Offered in the summer session only. Prerequisite: Graduate standing and consent of instructor.

**AST 392J. Astronomical Instrumentation.**

A hands-on course in instrument development, including mechanical design and machining, electronics design, optical design and optics, computer interfacing, and project planning. Students use CAD programs in each area and design and build a computer-controlled instrument. Learning activities are carried out in groups and teams. One lecture hour and five laboratory hours a week for one semester. Prerequisite: Graduate standing.

**AST 393F. Survey of the Interstellar Medium.**

A broad introduction to the processes and properties of the interstellar medium. Topics include H I regions, H II regions, molecular clouds, interstellar dust, and the distribution of the interstellar medium in our galaxy. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**AST 393S. Seminar in Interstellar Matter.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**AST 394P. Planetary Astrophysics.**

Restricted to Astronomy majors. Discuss exoplanet detection methods; demographics, architecture, formation and evolution of planetary systems; planetary interiors, atmospheres and habitability. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of department.

**AST 396C. Elements of Cosmology.**

A theoretical discussion of the origin and evolution of the universe; includes a brief review of general relativity. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**AST 697. Graduate Research Project.**

Two-semester graduate research project in astronomy. The equivalent of three hours of work a week for two semesters. Prerequisite: For 697A, graduate standing and consent of instructor; for 697B, Astronomy 697A.

**AST 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in astronomy and consent of the graduate adviser; for 698B, Astronomy 698A.

**AST 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in astronomy and consent of the graduate adviser.

**AST 398T. Supervised Teaching in Astronomy.**

Effective astronomy teaching: course design, instructional materials, test design, other methods. In-class practice teaching. Projects in astronomy education. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and current or previous appointment as a teaching assistant.

**AST 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

**Professional Courses****Bengali Courses****Bengali: BEN****Lower-Division Courses****BEN 506. First-Year Bengali I.**

Not open to native speakers of Bengali. Five class hours a week for one semester.

**BEN 507. First-Year Bengali II.**

Not open to native speakers of Bengali. Continuation of Bengali 506. Five class hours a week for one semester. Prerequisite: Bengali 506 with a grade of at least C.

**BEN 312K. Second-Year Bengali I.**

Not open to native speakers of Bengali. Three class hours a week for one semester. Prerequisite: Bengali 507 with a grade of at least C.

**BEN 312L. Second-Year Bengali II.**

Not open to native speakers of Bengali. Continuation of Bengali 312K. Three class hours a week for one semester. Prerequisite: Bengali 312K with a grade of at least C.

**BEN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S.**  
**Topics in Bengali.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## Upper-Division Courses

### **BEN 320K. Advanced Bengali I.**

Not open to native speakers of Bengali. Three class hours a week for one semester. Prerequisite: Bengali 312L with a grade of at least C.

### **BEN 320L. Advanced Bengali II.**

Not open to native speakers of Bengali. Continuation of Bengali 320K. Three class hours a week for one semester. Prerequisite: Bengali 320K with a grade of at least C.

### **BEN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S.** **Topics in Bengali.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **BEN 360. Conference Course in Bengali Language and Literature.**

Supervised individual study of selected problems in Bengali language and literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor on form obtained from the undergraduate adviser.

## Graduate Courses

### **BEN 381. Conference Course in Bengali Language and Culture.**

Supervised individual study in Bengali language or culture. The equivalent of 3 lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor on form obtained from the graduate coordinator.

## Professional Courses

# Biochemistry Courses

## Biochemistry: BCH

### Lower-Division Courses

#### **BCH 206K. Undergraduate Research.**

Introduction to research practices; supervised individual undergraduate research in biochemistry. Six to ten laboratory hours a week for one semester. May be taken for a letter grade no more than twice. No more than six semester hours may be counted toward a degree in biochemistry. May be repeated for credit.

#### **BCH 219L. Introduction to Biochemical Laboratory Practices and Skills.**

Restricted to biochemistry majors. Explore basic skills used by biochemists and an introduction to future career options. Examine basic biochemical concepts and laboratory, computational, and professional

skills. Four laboratory hours and one lecture hour a week for one semester. Prerequisite: Biology 311D and Chemistry 302 with a grade of at least C- and credit or registration for Chemistry 204.

### **BCH 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S.** **Topics in Biochemistry.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry and Biochemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## Upper-Division Courses

### **BCH 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S.** **Topics in Biochemistry.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry and Biochemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **BCH 339F. Foundations of Biochemistry.**

Restricted to biochemistry majors. Metabolism of carbohydrates, lipids, amino acids, and nucleotides; structure and function of proteins. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 339F, 369, Biology 337 (Topic: Foundations of Biochemistry), Chemistry 339K, 369. Prerequisite: One of the following with a grade of at least C-: Chemistry 310M, 318M, 320M, or 328M.

#### **BCH 339J. Chemical and Synthetic Biology.**

Topics include enzymatic reaction mechanisms and how they can be manipulated using tools from both chemistry and molecular biology. Designed for students pursuing pharmaceutical and biotechnology careers. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 339J, Chemistry 339J, Systems and Synthetic Biology 339J. Prerequisite: Biology 344 and Biochemistry 339F with a grade of at least C-.

#### **BCH 339M. Structure and Function of Molecular Machines.**

Function of proteins and protein complexes as machines in the cell, including the interaction of proteins with nucleic acids, synthesis of proteins, and degradation of proteins. Three lecture hours per week for one semester. Prerequisite: Biochemistry 339F, 370, and Biology 344 with a grade of at least C-.

#### **BCH 339N. Systems Biology and Bioinformatics.**

Understanding how the cell works as a system with emphasis on the methods used to gather and analyze data and develop/test models of systems level data. Three lecture hours a week for one semester. Biochemistry 339N and 364C may not both be counted. Prerequisite: Biology 344, Biochemistry 339F, Statistics and Data Sciences 320E, and Computer Science 303E with a grade of at least C-; or equivalent programming experience with approval of instructor.

#### **BCH 364C. Bioinformatics.**

Examine typical data, data analysis, and algorithms encountered in computational biology. Includes introductory probability and statistics, basics of programming, protein and nucleic acid sequence analysis, genome sequencing and assembly, synthetic biology, analysis of

large-scale gene expression data, data clustering, biological pattern recognition, and biological networks. Three lecture hours a week for one semester. Biochemistry 339N and 364C may not both be counted. Prerequisite: Biochemistry 339F with a grade of at least B; Computer Science 303E; Statistics and Data Sciences 328M and 348 with a grade of at least B; and consent of the instructor.

#### **BCH 364D. Macromolecular Structure Determination.**

Restricted to biochemistry majors. Theory of physical methods used in biochemistry and molecular biology, with a strong emphasis on macromolecular structure determination by X-ray crystallography and cryo-electron microscopy. Includes surface plasmon resonance, isothermal titration calorimetry, and biolayer interferometry. Three lecture hours a week for one semester. Biochemistry 364D and Chemistry 364D may not both be counted. Prerequisite: Biochemistry 339F and 370 with a grade of at least B and consent of instructor.

#### **BCH 364E. Systems Biology.**

Restricted to biochemistry majors. Survey of current high-throughput technologies and computational methods for generating data and integrating information at all levels of biological organization. Emphasis on how hypotheses can be generated and tested with these techniques to better understand how model organisms function and evolve. Three lecture hours a week for one semester. Biochemistry 364E and Chemistry 364E may not both be counted. Prerequisite: Biochemistry 339F with a grade of at least B and consent of instructor.

#### **BCH 364F. Astrobiology.**

Restricted to biochemistry majors. An overview of the science used in the search for extraterrestrial life, life origins, earth history, evolution, metabolism of extremophiles, biochemistry, and astronomy. Three lecture hours a week for one semester. Prerequisite: Biochemistry 339F with a grade of at least B.

#### **BCH 365D. Structure and Function of Proteins and Nucleic Acids.**

Restricted to biochemistry majors. Exploration of the structures and functions of proteins and nucleic acids, utilizing quantitative methods to evaluate the roles of structural features in function, and developing new ways of thinking about the dynamics of macromolecules. Three lecture hours a week for one semester. Biochemistry 365D and Chemistry 365D may not both be counted. Prerequisite: Biochemistry 339F and 370 with a grade of at least B.

#### **BCH 168C, 268C. Topics in Biochemistry.**

Supervised study of selected topics in Biochemistry by individual arrangement with the instructor. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Biochemistry 339F with a grade of at least B and consent of instructor.

#### **BCH 369. Fundamentals of Biochemistry.**

The basics of protein structure and function, carbon and nitrogen metabolism, and molecular biology of macromolecules. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 339F, 369, Biology 337 (Topic: Foundations of Biochemistry), Chemistry 339K, 369. May not be counted toward a degree in biochemistry. Prerequisite: One of the following with a grade of at least C-: Chemistry 310M, 318M, 320M, or 328M.

#### **BCH 369K. Techniques of Research.**

Advanced laboratory practice and introduction to research. One lecture hour and six laboratory hours a week for one semester. May be taken for a letter grade no more than twice. No more than six semester hours may be counted toward a degree in biochemistry. May be repeated for

credit. Prerequisite: Six semester hours of upper-division coursework in biochemistry or chemistry, or five semester hours of coursework in organic chemistry, or consent of the undergraduate faculty adviser in biochemistry.

#### **BCH 369L. Biochemistry Laboratory.**

An introduction to modern fundamental techniques of biochemistry. Two lecture hours and seven laboratory hours a week for one semester. Biochemistry 369L and Chemistry 369L may not both be counted. Prerequisite: Biochemistry 339F with a grade of at least C-.

#### **BCH 369T. Biotechnology Laboratory.**

Advanced techniques in biotechnology. Nine laboratory hours a week for one semester. Biochemistry 369T and Chemistry 369T may not both be counted. Prerequisite: Consent of instructor.

#### **BCH 370. Physical Methods of Biochemistry.**

Theory of electrophoresis, ultracentrifugation, spectroscopy, electron microscopy, and diffraction as applied to biological macromolecules. Three lecture hours a week for one semester. Biochemistry 370 and Chemistry 370 may not both be counted. Prerequisite: Biochemistry 339F with a grade of at least C-.

#### **BCH 175C. Biochemistry Capstone Seminar.**

Receive guidance during capstone experience. Document and reflect on the experience, present capstone work in a professional venue, and discuss plans for transitioning to post-graduation careers. The equivalent of one lecture hour a week for one semester.

#### **BCH 379H, 679H. Biochemistry Honors Tutorial Course.**

Laboratory research project in a specific field of biochemistry under the supervision of one or more faculty members. Conference course. May be repeated once for credit. Must be taken in addition to the required hours for a degree in biochemistry. Students must enroll no later than the first semester of the year of graduation. May be repeated for credit. Prerequisite: Consent of the research supervisor and the departmental honors adviser.

### **Graduate Courses**

#### **BCH 080M. Dual MD/PhD Program with UT Medical Branch.**

Preclinical medical study at the University of Texas Medical Branch at Galveston. May not be taken concurrently with another course at the University of Texas at Austin. Prerequisite: Graduate standing and admission to the MD/PhD dual degree program in biochemistry.

#### **BCH 381D. Structure-Aided Drug Discovery.**

Investigation of structure-based drug design subjects including the modern model of drug discovery in pharmaceutical and biotech companies, high-throughput Assay development, structure-aided drug discovery, case studies of hot targets, and hands-on experience with docking program. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **BCH 387D. Physical Methods in Biochemistry and Molecular Biology.**

Theory of physical methods used in biochemistry and molecular biology. Three lecture hours a week for one semester. Prerequisite: Graduate standing, an undergraduate course in physical chemistry, and an undergraduate course in biochemistry.

#### **BCH 394. Structure and Function of Proteins and Nucleic Acids.**

Explores the structures and functions of proteins and nucleic acids. Emphasis is placed on quantitative methods used to evaluate the roles of structural features in function and in developing new ways of thinking

about the dynamics of macromolecules. Three lecture hours a week for one semester. Biochemistry 394 and Chemistry 394 may not both be counted. Prerequisite: Graduate standing.

#### **BCH 394P. Bioinformatics.**

Examine typical data, data analysis, and algorithms encountered in computational biology. Includes introductory probability and statistics, basics of programming, protein and nucleic acid sequence analysis, genome sequencing and assembly, synthetic biology, analysis of large-scale gene expression data, data clustering, biological pattern recognition, and biological networks. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **BCH 395G. Structure and Function of Proteins and Membranes.**

Same as Biology 395G and Molecular Biology 395G. Detailed consideration of the structure and function of proteins, with discussion of enzyme mechanisms and kinetics, the biochemistry of energy production, and the metabolism of lipids and nucleotides. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 395G, Biology 395G, Molecular Biology 395G. Prerequisite: Graduate standing; a one-year undergraduate sequence in biochemistry is strongly recommended.

#### **BCH 395J. Genes, Genomes, and Gene Expression.**

Same as Biology 395J and Molecular Biology 395J. Detailed consideration of prokaryotic and eukaryotic mechanisms of DNA replication and transcription; posttranscriptional processing of transcription products; and mechanism and regulation of the translation of messenger RNAs. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 395J, Biology 395J, Molecular Biology 395J. Prerequisite: Graduate standing; and Biology 395F and 395G, or Chemistry 395F and 395G, or Molecular Biology 395F and 395G, or consent of instructor.

#### **BCH 396S. Synthetic Biology.**

Survey of current high-throughput technologies and computational methods for generating data and integrating information at all levels of biological organization. Emphasis on how hypotheses can be generated and tested with these techniques to better understand how model organisms function and evolve. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **BCH 197C, 297C, 397C, 497C, 597C, 697C, 997C. Advanced Study and Research in Biochemistry.**

For each semester hour of credit earned, the equivalent of one-and-one-half laboratory hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of graduate adviser.

#### **BCH 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in biochemistry and consent of the graduate adviser; for 698B, Biochemistry 698A.

#### **BCH 398T. Professional Development for Graduate Students in Biochemistry.**

Restricted to graduate students in biochemistry. Provides professional development skills to graduate students in biochemistry. Subjects include excellence in teaching, scientific communication, grantsmanship, ethics, and career planning. Three lecture hours a week for one semester. Biochemistry 398T and Chemistry 398T may not both be counted.

Offered on the credit/no credit basis only. Prerequisite: Graduate standing in biochemistry.

#### **BCH 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

### **Professional Courses**

## **Biology Courses**

### **Biology: BIO**

#### **Lower-Division Courses**

##### **BIO 101C, 301C, 401C, 601C. Topics in Biology.**

Topics in biology that are especially relevant to current issues and problems in modern society. For each semester hour of credit earned, one lecture hour a week for one semester. Some topics require one additional discussion hour or three or four additional laboratory hours a week. May not be counted toward a degree in biology. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: The Biology of Being Human.** Introductory biology course that covers human evolution, genetics and genomics, behavior, population growth and environmental issues. May not be counted toward a degree in the College of Natural Sciences.

##### **BIO 301E. Problems in Modern Biology.**

An introduction to major concepts in biology, with emphasis on topics, such as genetics, that are relevant to current issues in the field. Three lecture hours and one discussion hour a week for one semester. Biology 301E and 301L may not both be counted; Biology 301E and 301M may not both be counted. May not be counted toward a degree in biology. Prerequisite: Admission to the Plan II Honors Program.

##### **BIO 102C, 202C, 302C, 402C. Conference Course.**

Supervised study of selected subjects in biology, by individual arrangement with the instructor. Conference course. May be repeated for credit. Prerequisite: Varies with instructor.

##### **BIO 302D (TCCN: BIOL 1309). Science Literacy and Numeracy: Ecology and Evolution.**

Explore science literacy and numeracy skills through methods of inquiry; dealing with quantitative data; and correcting common misconceptions regarding rational and quantitative thought. Examine these skills in the context of news events that include reference to some or all of the following: Mendelian genetics; microevolution; macroevolution; population ecology; community ecology; ecosystem ecology. Three lecture hours and one discussion hour a week for one semester.

##### **BIO 302E (TCCN: BIOL 1308). Science Literacy and Numeracy: Genetics and Genomics.**

Explore science literacy and numeracy skills through methods of inquiry, dealing with quantitative data and correcting common misconceptions regarding rational and quantitative thought. Examine these skills in the context of news events that include reference to some or all of the following: human genetics; analysis and manipulation of DNA; genetic testing; assisted reproductive technology; human ancestry; personalized medicine; forensic genetics. Three lecture hours and one discussion hour a week per semester

##### **BIO 302F. Science Literacy and Numeracy: Human Health and Disease.**

Explore science literacy and numeracy skills through methods of inquiry, dealing with quantitative data and correcting common misconceptions

regarding rational and quantitative thought. Examine these skills in the context of news events that include reference to some or all of the following: metabolic diseases, infectious diseases, genetic diseases - causes, prevention, and treatments. Three lecture hours and one discussion hour a week for one semester.

### **BIO 302G. Science Literacy and Numeracy: Biotechnology and the Future.**

Explore science literacy and numeracy skills through methods of inquiry, dealing with quantitative data and correcting common misconceptions regarding rational and quantitative thought. Examine these skills in the context of news events that include reference to some or all of the following: climate change; genetically modified organisms; biomedical technology. Three lecture hours and one discussion hour a week for one semester

### **BIO 206L. Introductory Laboratory Experiments in Biology.**

The organizing principles of biology (such as molecular and cellular functions, reproduction, development, homeostatic mechanisms, and organismal physiology and behavior) are used within a comparative and evolutionary framework to train students in modern laboratory techniques, bioinformatics, experimental design, and interpretation of results. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Credit or registration for Biology 311C or 311D.

### **BIO 208L. Field Biology.**

Field projects, laboratory exercises, field trips, and computer simulation exercises to acquaint students with the principles and applications of ecology and some of the experimental and descriptive methods of ecological investigations. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Credit or registration for Biology 311D.

### **BIO 311C (TCCN: BIOL 1306). Introductory Biology I.**

Introduction to biological energy transformation, cell structure and physiology, and gene expression. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 301L, 211, 311C. Biology 311C and 212 may not both be counted. Prerequisite: Credit or registration for Chemistry 301 or 301H.

### **BIO 311D (TCCN: BIOL 1307). Introductory Biology II.**

Introduction to mechanisms of inheritance, evolution, physiology, and species interactions. Three lecture hours and one discussion hour a week for one semester. Biology 301L and 311D may not both be counted. Biology 301M and 311D may not both be counted. Prerequisite: For students pursuing the Bachelor of Science and Arts with a major in Biology, Biology 311C with a grade of at least C- and credit or registration for Biology 206L; For all others, Biology 311C with a grade of at least C-.

### **BIO 315H. Advanced Introduction to Genetics: Honors.**

Basic principles of genetics and cell biology. Emphasis on gene structure and regulation; transmission of heritable traits; structure and function of cells; bacterial and viral genetics; and recombinant DNA technology. Three lecture hours and one discussion hour a week for one semester. Prerequisite: A score of 5 on the College Board Advanced Placement Examination in Biology and credit or registration for Chemistry 301 or 301H.

### **BIO 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Biology.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Biology Instructional Office. University credit is awarded for work in an exchange program; it may be counted as coursework taken in

residence. Transfer credit is awarded for work in an affiliated studies program. . May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **BIO 320. Cell Biology.**

Principles of eukaryotic cell structure and function; macromolecules, membranes, organelles, cytoskeleton, signaling, cell division, differentiation, motility, and experimental methodologies. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

### **BIO 320L. Cell Biology Laboratory.**

Explores the complex structures and functions of cells through direct observation and experimentation. Subjects may include regulation of gene transcription and translation, protein sorting, organelles and membrane trafficking, cytoskeletal dynamics, and cell division. Use a combination of modern molecular biology, biochemistry, and microscopy techniques, with a strong emphasis placed on hypothesis-driven approaches, proper experimental design, and clear scientific writing and presentation. One lecture hour and five laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Sciences 311.

### **BIO 321G. Principles of Computational Biology.**

Introduces computational methods for the analysis of nucleic acid and protein sequences, with applications towards biological problems. Performance assessment will be based on experiential learning methods. Three lecture hours and two computer laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H; Statistics and Data Sciences 328M; and Mathematics 408C, 408S, or 408R.

### **BIO 321L. Aquatic Entomology.**

The taxonomy of aquatic insects; the use of aquatic insects in biomonitoring. Two lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Biology 321L, 370C (Topic: Applied Aquatic Entomology), 384K (Topic 13). Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

### **BIO 322. Structure, Physiology, and Reproduction of Seed Plants.**

The principles of structure and functioning of higher plants; special attention to the dynamics of growth and development and reproduction. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-, Chemistry 302 or 302H, and concurrent enrollment in Biology 122L.

### **BIO 122L. Structure, Physiology, and Reproduction of Seed Plants Laboratory.**

Observation of structure and reproduction in seed plants and employment of experimental techniques that demonstrate physiological processes, especially processes of growth and development. Two laboratory hours a week for one semester. Prerequisite: Concurrent enrollment in Biology 322; and the following with a grade of at least C-: Biology 206L, 208L, 226L or Environmental Sciences 311.

### **BIO 323L. Laboratory Studies in Cell Biology.**

Research exercises involving light/electron microscopy, image processing, autoradiography, chromatography, fractionation, flow cytometry, spectroscopy, diffraction, antibody labeling, cell growth, and kinetics. One lecture hour and four laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biology

325 or 325H, and Biology 206L, 208L, 226L, or Environmental Sciences 311; and credit or registration for Biology 320.

### **BIO 324. Survey of the Plant Kingdom.**

Survey of the groups of living and fossil plants, comparing organization and reproduction to understand major shifts in the evolution of plant life. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-, and concurrent enrollment in Biology 124L.

### **BIO 124L. Survey of the Plant Kingdom Laboratory.**

Hands-on exploration of major plant groups emphasizing organization, reproduction and evolution. Cultures, prepared and living material examined. Local field trips. Designed to pair with Biology 324 lectures. Two laboratory hours a week for one semester. Prerequisite: Concurrent enrollment in Biology 324; and the following with a grade of at least C-: Biology 206L, 208L, 226L or Environmental Sciences 311.

### **BIO 325. Genetics.**

Basic principles of Mendelism, molecular genetics, structure and function of genes and chromosomes, populations and evolution. Three lecture hours and one discussion hour a week for one semester. Biology 325 and 325H may not both be counted. Prerequisite: Biology 311C and 311D with a grade of at least C- in each and credit or registration for Statistics and Data Sciences 320E.

### **BIO 325H. Genetics: Honors.**

Basic principles of genetics and evolution. Emphasis on population genetics and natural selection; structure and function of organ systems; behavioral ecology; and mutational analysis of organismal development. Three lecture hours and one discussion hour a week for one semester. Biology 325 and 325H may not both be counted. Prerequisite: Biology 315H with a grade of at least C-.

### **BIO 325L. Laboratory Experience in Genetics.**

Experimentation and direct observation in fundamental aspects of transmission genetics. One lecture hour and four laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Sciences 311.

### **BIO 325T. Human Genetics.**

Genomics, cancer genetics, identification and analysis of human disease genes, and monogenic and multifactorial traits in humans. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

### **BIO 226L. General Microbiology Laboratory.**

Introduction to microbiology laboratory techniques and experimental demonstration of principles of microbiology. One lecture and three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Biology 326M or 326R.

### **BIO 326M. Introductory Medical Microbiology and Immunology.**

Designed primarily for nursing and prepharmacy students. Overview of the structure, function, and genetics of bacteria, viruses, and fungi, with emphasis on the interactions between micro-organisms and the human host. Includes principles of microbial pathogenesis, the host's innate and adaptive immune responses to infection, epidemiology, laboratory diagnosis, and antimicrobial chemotherapy and vaccines. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 311C; Biology 325 or 325H with a grade of at least C-; Chemistry

301 with a grade of at least C-; and one of the following with a grade of at least C-: Mathematics 408C, 408K, 408N, 408R.

### **BIO 326R. General Microbiology.**

Overview of the major areas of microbiological study, including cell structure and function, genetics, host-microbe interactions, physiology, ecology, diversity, and virology. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Biology 325 or 325H, and Chemistry 302 or 302H with a grade of at least C-.

### **BIO 327. General Phycology.**

A general survey of the algae and of their biology. Three lecture hours a week for one semester. Biology 327 and 388J may not both be counted. Prerequisite: Biology 324, 124L, and 325 or 325H, with a grade of at least C- in each, and concurrent enrollment in Biology 127L.

### **BIO 327D. Emerging Infectious Diseases.**

Genomic and proteomic tools used to understand the causes of human infectious diseases. Covers genome sequencing, community sequencing, proteomics, microarrays, and human polymorphism analysis; and how these technologies have been applied to the study of important human viral diseases. Also includes extensive coverage of the molecular and clinical biology of these diseases. Three lecture hours a week for one semester. Biology 327D and 337 (Topic: Emerging Infectious Diseases) may not both be counted. Prerequisite: Biology 325 or 325H with a grade of at least C-.

### **BIO 327G. Genomics.**

Genome structure, organization, and function of model organisms; theory and methodology of genetic and physical mapping; sequencing analysis and annotation; genome duplication and evolution; and ethics for biotechnology and cloning. Three lecture hours a week for one semester. Biology 327G and 337 (Topic: Genomics) may not both be counted. Prerequisite: Biology 325 or 325H with a grade of at least C-.

### **BIO 127L. Laboratory in General Phycology.**

Survey of various algal groups, including direct observations of their biology, exposure to research techniques, and instruction in culture procedures. Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Biology 327; and the following with a grade of at least C-: Biology 206L, 208L, 226L, or Environmental Sciences 311.

### **BIO 328. Introductory Plant Physiology.**

General principles of the mineral nutrition, water relations, metabolic activities, growth and development of green plants. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-, and Chemistry 302 or 302H.

### **BIO 328D. Discovery Laboratory in Plant Biology.**

Learning methods of experimental design, data gathering, data interpretation, and data presentation, including original experiments relating to questions of current interest in plant physiology. Five laboratory hours a week for one semester. Biology 328D and 337 (Topic: Discovery Laboratory in Plant Biology) may not both be counted. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Sciences 311.

### **BIO 128L. Laboratory Experiments in Plant Physiology.**

Introduction to experimental techniques used in the study of the mineral nutrition, water relations, metabolic activities, growth, and development of green plants. Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Biology

328; and the following with a grade of at least C-: Biology 206L, 208L, 226L, or Environmental Sciences 311.

### **BIO 329. Medical Mycology.**

A basic introduction to medical mycology and an overview of research involving both the fungal zoopathogen and its host. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-, and Biology 326R with a grade of at least C-.

### **BIO 129L. Medical Mycology Laboratory.**

Basic techniques for the identification and manipulation of fungi of medical importance. Three laboratory hours a week for one semester. Prerequisite: Biology 226L with a grade of at least C-; and credit with a grade of at least C- or registration for Biology 329.

### **BIO 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Biology.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Biology Instructional Office. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **BIO 330. Molecular Biology of Animal Viruses.**

Mechanisms by which viruses replicate and kill or transform cells. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

### **BIO 230L. Virology Laboratory.**

Basic experimental techniques applied to selected bacteriophages and animal viruses. Four laboratory hours and one discussion hour a week for one semester. Prerequisite: Biology 226L with a grade of at least C-, and credit with a grade of at least C- or registration for Biology 330.

### **BIO 331L. Laboratory Studies in Molecular Biology.**

Explores molecular biology methods, experimental design, and analyses applicable to both research and fields such as healthcare, biotechnology, and genetic analyses. Conducts experiments in a research project format. One lecture hour and four and one-half laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Sciences 311.

### **BIO 335. Introduction to Biochemical Engineering.**

Microorganisms in chemical and biochemical synthesis; genetic manipulation of cells by classical and recombinant DNA techniques. Enzyme technology; design of bioreactors and microbial fermentations; separations of biological products. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 335, Biomedical Engineering 339, Chemical Engineering 339, 379 (Topic: Introduction to Biochemical Engineering). Prerequisite: Biochemistry 339F or 369, and Biology 311C with a grade of at least C-.

### **BIO 336. Tumor Biology.**

Covers core aspects of cancer pathology, treatment, epidemiology, the discovery of oncogenes and tumor suppressors, and the molecular genetics underlying the characteristic features of malignant tumors (including metastatic behavior, genomic instability, angiogenesis, cell cycle regulation, and apoptosis). Strong emphasis on the biochemical functions of cancer-related proteins and enzymes and therapeutic approaches based on our understanding of these proteins. Important experimental approaches that have influenced our current understanding of cancer will also be stressed. Three lecture hours a week for one

semester. Prerequisite: Biology 325 or 325H with a grade of at least C-; and one of the following with a grade of at least C-: Biochemistry 339F, 369, Biology 330, 360K.

### **BIO 137, 237, 337, 437. Selected Topics in Biology.**

Recent developments and research methods in the biological sciences. For each semester hour of credit earned, one lecture hour a week for one semester. Some topics may require additional hours. May be repeated for credit when the topics vary. Prerequisite: Biology 325 or 325H with a grade of at least C-; additional prerequisites vary with the topic.

**Topic 1: Seminar in Human Biology.** One lecture hour a week for one semester. Only offered as Biology 137. Prerequisite: Biology 346 with a grade of at least C-.

**Topic 2: Research Methods: UTeach.** Restricted to students in the UTeach-Natural Sciences program. Students perform independent inquiries and use skills from mathematics and science to solve research problems.

**Topic 3: Natural History of Protists.** A study of protista, a wide variety of eukaryotic organisms which are either unicellular or phylogenetically closely allied to unicellular organisms. Description of the basic taxonomic and ecological groups, and description of the natural history of the major groups of organisms.

**Topic 4: Computational Neuroscience and Neural Networks.**

**Topic 5: Grant Writing and Research Skills.** Explores skills required of research scientists, and specifically prepares students to submit a NSF Graduate Research Fellowship Proposal (NSF-GRFP) grant proposal during the semester (deadline for GRFP submission is typically during the last week of October). There are weekly writing milestones to complete an NSF-GRFP proposal by the submission deadline. Additional prerequisite: Upper-division standing and Statistics and Data Sciences 328M with a grade of at least C-.

**Topic 6: Practical Ethics for Biologists.** Incorporates weekly case studies to introduce common ethical issues faced by biologists in the field and the lab. Employs the Systematic Moral Analysis framework to critically examine ethical issues in scientific inquiry in general (data integrity, who pays for science) as well as issues specific to biologists in the field and laboratory (questionable research practices, conflicts of interest, expertise vs advocacy). Explores issues of personal values, implicit bias and environmental justice.

**Topic 9: The Emergence of Modern Biology.** Explore biology through an analysis of classic texts from the age of Darwin to the present day. Survey the theory of evolution by natural selection, genetics and the Modern Synthesis, population and community ecology, molecular biology and genomics.

**Topic 10: Renewable Resources: Environment and Future.** Greenhouse gases and their effect on climate and the oceans, renewable energy and materials such as biofuels, bioplastics, and green chemistry: minimizing the generation of chemical waste in manufacturing processes. Biology 337 (Topic: Renewable Rsrcs: Envir/Future) and 137, 237, 337, and 437 (Topic 10) may not both be counted.

**Topic 12: Quality Assurance for the Biosciences.**

**Topic 13: Advanced Genetics.** Examine basic principles of Mendelian and molecular genetics, and explore the genetic toolbox using examples of analytic methods and modern manipulations. Focus on the genetic analysis of model organisms and human diseases. Use genetic tools in the dissection of complex biological pathways, developmental processes, and regulatory systems. Produce an independent research proposal and presentation focusing on a current question in molecular genetics. Additional prerequisite: Consent of instructor.

### **BIO 337J. Computational Biology Laboratory.**

Overview of computational biology, with emphasis on nucleic acid sequence analysis and databases. Class projects and self-learning

exercises. Two lecture hours and three computer laboratory hours a week for one semester. Prerequisite: Biology 325 or 325H, and Statistics and Data Sciences 328M with a grade of at least C- in each.

#### **BIO 438L. Animal Communication.**

Animal communication from a multidisciplinary perspective, with emphasis on quantitative analysis, sensory processing, and evolution of signals. Three lecture hours and three laboratory hours a week for one semester, with computer laboratory hours as required. Prerequisite: Biology 325 or 325H with a grade of at least C-, and Biology 359K or 370 with a grade of at least C-.

#### **BIO 339M. Bacterial Behavior and Signaling Mechanisms.**

Advanced studies in how bacteria perceive their environment and communicate with each other. Subjects may include chemotaxis and motility, morphogenesis and development, and secretion and virulence. Taught entirely through reading and discussion of original articles. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-, and Biology 326R with a grade of at least C-.

#### **BIO 340L. Biology of Birds.**

Anatomy, physiology, classification, and ecology of birds. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Sciences 311.

#### **BIO 344. Molecular Biology.**

Molecular basis of cellular processes: gene structure and function, DNA replication, RNA and protein synthesis, viruses, molecular aspects of immunology and cancer, and recombinant DNA. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325H, and Biochemistry 369 or 339F with a grade of at least a C-.

#### **BIO 345E. Endocrinology.**

Vertebrate endocrinology (primarily mammalian), with a focus on human pathophysiology. Three lecture hours and one discussion hour a week for one semester. Biology 337 (Topic: Endocrinology) and 345E may not both be counted. Prerequisite: Biology 325 or 325H with a grade of at least C-.

#### **BIO 346. Human Biology.**

Introduction to human evolution, genetics, sexuality, senescence, and population growth. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 301G, 309F, 346. Prerequisite: Biology 325 or 325H with a grade of at least C-.

#### **BIO 446L. Human Microscopic and Gross Anatomy.**

Designed for students preparing for biomedical research and the health professions. Focuses on microscopic and gross anatomy of human tissues and organs, with an emphasis on structure function relationships. Subjects include the effects of disease and aging in addition to normal human anatomy. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: The following courses with a grade of at least C-: Biology 325 or 325H; Chemistry 301; and Mathematics 408C, 408K, 408N, 408R, Statistics and Data Sciences 302, or 328M.

#### **BIO 448L. Invertebrate Biology.**

A study of the diversity and evolution of multicellular invertebrate animals, with emphasis on common themes in animal body construction and function. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

#### **BIO 349L. Experiments in Developmental Biology.**

An investigation of methods and principles of developmental biology in a laboratory context, with emphasis on animal embryology using molecular techniques and microscopy. One lecture hour and six laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

#### **BIO 350. Developmental, Stem Cell, and Regenerative Biology.**

Explore the principles and mechanisms of embryonic development and the processes guiding stem cell differentiation and tissue repair. Three lecture hours a week for one semester. Biology 349 and 350 may not both be counted. Prerequisite: Biology 325 with a grade of at least C-.

#### **BIO 350M. Plant Molecular Biology.**

Fundamentals of plant molecular biology, including structure and expression of the chloroplast and mitochondrial genomes. Three lecture hours a week for one semester. Biology 350M and 388M may not both be counted. Prerequisite: Biology 325 or 325H with a grade of at least C-.

#### **BIO 351. Economic Botany.**

An in-depth analysis of the origin of domesticated plant species, the role in nature of plant products, and the ways natural products have been altered through artificial selection. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

#### **BIO 352. Reproductive Biology of Flowering Plants.**

Pollination biology, breeding systems, reproductive strategies, and fruit and seed dispersal from evolutionary and ecological vantage points. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

#### **BIO 353F. Field Entomology.**

A field course on insects, with emphasis on field study techniques, visual identification of species, collecting techniques, and curation in the field. Meets five days a week for one hour a day during a summer-session term; additional fieldwork to be arranged, including extended field trips. Biology 337 (Topic: Field Entomology) and 353F may not both be counted. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

#### **BIO 453L. Entomology.**

Characteristics, importance, and biology of the major groups of insects. Two lecture hours and three laboratory hours a week for one semester, with additional fieldwork hours to be arranged. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

#### **BIO 353S. Sleep Science.**

Explore the basics of sleep science. Examine current research questions and novel approaches. Discuss the range of sleep disorders and their diagnoses. Three lecture hours a week for one semester. Biology 337 (Topic 7) and 353S may not both be counted. Prerequisite: For Neuroscience majors, Biology 325 or 325H and Neuroscience 335; for others, Biology 325 or 325H and Psychology 332.

#### **BIO 354C. Cell Biology of Human Birth Defects.**

Explores the link between basic cell biology, human genetics, and human birth defects using current scientific literature exposing students to critical thinking and the scientific method, as well as the application of these tools to the study of biology. Three lecture hours a week for one

semester. Biology 337 (Topic: Developing Biology) and Biology 354C may not both be counted. Prerequisite: Biology 349 with a grade of at least C-.

#### **BIO 354L. Ichthyology.**

Overview of the evolution, biology, and ecology of fishes, emphasizing freshwater fishes. Three lecture hours and three hours of laboratory or fieldwork a week for one semester, with field trips to be arranged. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

#### **BIO 355. Microbial Biochemistry.**

Study the function of bacterial proteins and their complexes, including their role in inter-bacterial interactions that shape multi-species communities. Three lecture hours a week for one semester. Biology 339 and 355 may not both be counted. Prerequisite: Biology 326R; and Biochemistry 369 or 339F with a grade of at least C-.

#### **BIO 455L. Vertebrate Natural History.**

Phylogeny, taxonomy, life histories, habits, and distribution. Two lecture hours and three hours of laboratory or fieldwork a week for one semester, with field trips to be arranged. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

#### **BIO 356E. Epigenetics and Epitranscriptomics.**

Explore epigenetic mechanisms that involve covalent modifications of the three major biomolecules: DNA, RNA or proteins in the context of gene expression and genome stability. Examine how environmental and intrinsic factors regulate these mechanisms to impact normal and diseased cell functions, particularly as they relate to human health, aging, and behavior. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 327E, 337 (Topic: Epigenetics), 356E. Prerequisite: Biology 325 with a grade of at least C-.

#### **BIO 456L. Limnology and Oceanography.**

Same as Marine Science 440. An introduction to the study of the interactions between aquatic organisms and their environments. Two lecture hours and six laboratory hours a week for one semester. Prerequisite: Chemistry 302 or 302H; and the following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

#### **BIO 357. Evolutionary Ecology.**

Principles of modern ecology, particularly as they relate to natural selection and evolutionary theory. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

#### **BIO 359J. Behavioral Ecology.**

Advanced topics in behavioral ecology, with detailed consideration of animal communication, altruism, sexual selection, plant-animal interactions. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-, and Biology 359K or 370 with a grade of at least C-.

#### **BIO 359K. Principles of Animal Behavior.**

An introduction to the study of animal behavior: descriptive analysis of behavior; physiological basis of behavior; development of behavior; adaptive significance and evolution of behavior; communication and social behavior. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

#### **BIO 359R. Animal Sexuality.**

The biology of sexuality, including genetics, morphology, physiology, and psychology of sex. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

#### **BIO 360K. Immunology.**

The basic concepts of humoral and cell-associated immune phenomena, including innate immunity, the molecular basis of T cell and B cell antigen recognition, hematopoiesis and the development of lymphocytes, cellular and humoral immune responses and the basics of immunodeficiency, autoimmunity, immunotherapy and vaccination. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

#### **BIO 260L. Immunology Laboratory.**

Current techniques in experimental cellular and humoral immunology. One hour lecture and four laboratory hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-; Biology 206L, 208L, 226L, or Environmental Science 311 with a grade of at least C-; and credit or registration for Biology 360K.

#### **BIO 361. Human Infectious Diseases.**

Etiology, pathogenesis, diagnosis, and immunobiology of the major microbial diseases, with emphasis on their prevention. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H, and Biology 326M or 326R with a grade of at least C- in each.

#### **BIO 361L. Clinical Bacteriology Laboratory.**

Training in techniques required for independent work in diagnostic and epidemiological bacteriology. Two lecture hours and five laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C- in each: Biology 325 or 325H; 226L; and 326R or 326M.

#### **BIO 361T. Comparative Animal Physiology.**

Physiology of organ systems in animal phyla, with special emphasis on physiological adaptations of organisms to their environment. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

#### **BIO 463L. Plant Systematics.**

Principles of plant classification, phylogeny, and diversity as exemplified by families and species of flowering plants found seasonally in Texas with an emphasis on the local flora. Two lecture hours and three laboratory hours a week for one semester, with additional field trips to be arranged. Biology 262 and 262L, and 463L may not both be counted. Prerequisite: The following with grades of at least C-: Biology 325 or 325H; and Biology 206L, 208L, 226L, or Environmental Science 311.

#### **BIO 364. Microbial Ecology.**

Population, community, and ecosystem ecology of microbes and microbiomes. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

#### **BIO 365S. Human Systems Physiology.**

Overview of human physiology, including the cardiovascular, respiratory, and renal systems, with an emphasis on critical thinking, integration, and application. Additional subjects include membrane movement, osmolarity and tonicity, endocrinology, and neurophysiology. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 311C; Biology 325 or 325H, and Chemistry 301 or 301H with a grade of at least C- in each; and one of the following with a grade of at least C-: Mathematics 408C, 408K, 408N, 408R, or Statistics and Data Sciences 302.

**BIO 165U. Human Systems Physiology Laboratory.**

Offers hands-on experience in human physiology and encourages critical thinking via case study application. Explores the scientific method through the reading of scientific journal articles; writing protocols for basic physiological experiments; and collecting, analyzing, and presenting data. Three laboratory hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-, and credit or registration for Biology 365S.

**BIO 366. Microbial Genetics.**

Molecular biology of nucleic acids; biosynthesis of macromolecules, transfer of genetic material from cell to cell, recombination, mutagenesis, and regulatory mechanisms. Three lecture hours a week for one semester. Biology 366 and 391S may not both be counted. Prerequisite: Biology 325 or 325H with a grade of at least C-, and Biology 326R with a grade of at least C-.

**BIO 366R. Molecular Genetics and Medicine.**

Implementation of molecular genetics techniques in medicine. Includes application of diagnostic and therapeutic techniques for several genetic disorders and infectious diseases. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

**BIO 367C. Cellular and Molecular Bases of Neural Development.**

An introduction to the principles by which the neural tube (brain and spinal cord) forms during embryonic development. Subjects include the cellular and molecular mechanisms underlying the formation of a three-dimensional neural tube and its division into forebrain, midbrain, hindbrain, and spinal cord. Three lecture hours a week for one semester. Biology 365N and BIO 367C may not both be counted. Prerequisite: One of the following with a grade of at least C-: Biology 325, Neuroscience 330, 365R.

**BIO 068. Peer Assistant.**

May be repeated for credit. Offered on the pass/fail basis only.

**BIO 369F. Field Herpetology.**

Species identification by sight and sound, and research techniques such as sampling populations, data collection, and analysis. One lecture hour and five laboratory hours a week for one semester, with additional field hours to be arranged. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

**BIO 369L. Herpetology.**

Biology of amphibians and reptiles, including evolution, ecology, behavior, physiology, life history, and identification. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

**BIO 370. Evolution.**

Introduction to modern evolutionary biology, focusing on the evolution of molecular, developmental, morphological, and behavioral traits. Genetic and ecological bases of evolutionary changes within populations and of evolutionary divergence in animals and plants. Three lecture hours and one discussion hour a week for one semester. Biology 370 and 385K (Topic 2: Evolution) may not both be counted. Prerequisite: Biology 325 or 325H with a grade of at least C-.

**BIO 170C, 270C, 370C, 470C. Conference Course.**

Supervised study of selected topics in biology, by individual arrangement with the instructor. Conference course. May be repeated for credit when

the topics vary. Prerequisite: Biology 325 or 325H with a grade of at least C-; additional prerequisites vary with the topic.

**BIO 471. Introduction to Systematics.**

Study of diversification of living and fossil organisms, including speciation, biogeography, taxonomy, and phylogeny of genes, species, and higher taxa. The lecture and laboratory include a significant amount of computational molecular phylogenetics. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Biology 325 or 325H, and 370 with a grade of at least C-.

**BIO 471G. Natural History Museum Science.**

An introduction to curatorial practices in natural history museums. Three lecture hours and one discussion hour a week for one semester; students also complete a twenty- to thirty-hour curatorial project. Prerequisite: Biology 325 or 325H with a grade of at least C-.

**BIO 371L. Experimental Physiology.**

Experimental approach to physiological mechanisms by which animals adapt to their environment. One lecture hour, four laboratory hours, and two hours of computer work a week for one semester. Prerequisite: The following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

**BIO 372C. Biology Peer Mentors in Research/Teaching.**

Students work as peer mentors and assistants in the teaching of biology, with emphasis on developing instructional materials that teach fundamental biology with real world data. Students mentor students for at least three hours a week in addition to other weekly meetings. Biology 372C and Chemistry 372C may not both be counted. Prerequisite: Biology 311C, 311D, and 325, or Biology 315H and 325H, with a grade of at least B in each; and consent of the undergraduate adviser.

**BIO 373. Ecology.**

An introduction to ecology, the study of relationships among organisms and between organisms and their environment; adaptations, population, communities, and ecosystems. Includes both plants and animals and both terrestrial and aquatic ecosystems. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-.

**BIO 373L. Ecology Laboratory.**

Intensive field ecology. Includes group field experiment and observation, independent projects, and field trips to other vegetation zones. Students complete weekly write-ups of observation and data analysis, reports of independent projects, and an oral presentation on an independent project. Four laboratory hours and two workshop/lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Biology 373; and the following with a grade of at least C-: Biology 206L, 208L, 226L, or Environmental Science 311.

**BIO 374. Plant Anatomy with Histological Techniques.**

Tissue organization and cellular details of stems, roots, and leaves of seed plants, with emphasis on development and function. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-, and concurrent enrollment in Biology 174L.

**BIO 174L. Laboratory in Plant Anatomy and Histological Techniques.**

Demonstration of cellular details and tissue systems of plant organs; instruction in the preparation of plant materials for histological examination. Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Biology

374; and the following with a grade of at least C-: 206L, 208L, 226L, or Environmental Sciences 311.

### **BIO 375. Conservation Biology.**

Application of principles of ecology to the preservation of wild plant and animal species and to the preservation, management, and restoration of natural and seminatural ecosystems. Emphasis on scientific, biological aspects of issues such as endangered species protection, preserve design, and forest management. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C-, and Biology 357, 359J, or 373 with a grade of at least C-.

### **BIO 177, 277, 377. Undergraduate Research.**

Laboratory or field research in the various fields of biological science under the supervision of one or more faculty members. Supervised individual research. Up to three semester hours may be counted toward the major requirement for the Bachelor of Arts degree with a major in biology. May be repeated for credit. Prerequisite: Biology 325 or 325H with a grade of at least C-, and written consent of instructor.

### **BIO 478L. Comparative Vertebrate Anatomy.**

Study of vertebrate morphology from developmental anatomy to the function, biomechanics, and phylogenetic relationships of living and fossil taxa. Three lecture hours and four laboratory hours a week for one semester. Biology 478L and Kinesiology 324K, 424K may not both be counted. Prerequisite: Biology 325 or 325H with a grade of at least C-.

### **BIO 379H, 679H. Honors Tutorial Course.**

Original laboratory or field research project under the direction of a faculty mentor, leading to a thesis or research presentation for students in the honors program in biology. The equivalent of three or six lecture hours a week for one semester. May be repeated for credit, but no more than six hours may be counted toward a degree in biology. Prerequisite: Consent of the student's research supervisor and the departmental honors adviser.

## **Graduate Courses**

### **BIO 380C. Advanced Conservation Biology.**

Application of principles and concepts of ecology to the preservation of wild plant and animal species and to the preservation, management, and restoration of natural and semi-natural ecosystems. Emphasis on biological aspects of issues such as endangered species protection, invasive species, preserve design, and forest management, via a set of case studies. Three lecture hours a week for one semester. Biology 380C and 384K (Topic: Advanced Topics in Conservation Biology) may not both be counted. Prerequisite: Graduate standing.

### **BIO 380E. Advanced Microbial Ecology.**

Examines microbial population, community, and ecosystem ecology. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 380E, 384K (Topic 22), and 384K (Topic: Advanced Topics in Microbial Ecology). Prerequisite: Graduate standing.

### **BIO 380F. Biology of Birds.**

Anatomy, physiology, classification, and ecology of birds. Three lecture and two laboratory hours a week for one semester. Includes optional weekly, half-day field trips and two optional full-weekend trips. Biology 384K (Topic: Biology of Birds) and 380F may not both be counted.

### **BIO 380G. Methods in Ecological Genomics.**

Explores state-of-the-art methodologies for: genomics-based demographic and population structure analysis; detection of genomic signatures of natural selection; analyzing gene expression in the ecology, evolution, and behavior context; quantification of complex communities using metabarcoding. Three lecture hours a week for one semester.

Biology 380G and 384K (Topic: Methods in Ecological Genomics) may not both be counted. Prerequisite: Graduate standing.

### **BIO 380L. Advanced Systematics.**

Explores biodiversity, phylogeny, species concepts, historical biogeography, phylogeography, molecular clocks, phylogenomics, comparative methods, fossils, morphometrics, taxonomy, ontogeny, homology, computational methods, and phylogenetic statistics. Three lecture hours and three laboratory hours a week for one semester. Biology 384K (Topic 14) and 380L may not both be counted. Prerequisite: Graduate standing.

### **BIO 380M. Topics in Biology (Cooperative Programs).**

Formal, organized courses taught at institutions other than the University of Texas at Austin. Three lecture hours a week for one semester. Not all topics are offered every year. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, consent of the student's graduate adviser or department chair and the University's graduate dean, and consent of the graduate dean at the host institution; additional prerequisites vary with the topic.

### **BIO 380P. Population Genetics.**

Introduces students to population genetics. The emphasis is on a quantitative understanding of evolutionary change caused by selection, drift, mutation, and migration. Both phenotypic and molecular evolution will be covered. Three lecture hours a week for one semester. Biology 380P and 385K (Topic 4) may not both be counted.

### **BIO 180R, 280R, 380R. Advanced Readings in the Biological Sciences.**

For each semester hour of credit earned, the equivalent of one class hour a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 380S. Animal Sexuality.**

Examines how hormones shape the development of the body, regulate physiological processes, and influence how individuals behave. Three lecture hours a week for one semester. Meets requirements for non-seminar graduate courses in the Ecology, Evolution, and Behavior Graduate Program. Only one of the following may be counted: Biology 380S, 383K (Topic: Animal Sexuality), 383K (Topic: Studies in Animal Sexuality). Prerequisite: Graduate standing.

### **BIO 380T. Current Concepts in Biology.**

Designed for beginning graduate students seeking a review of modern biological concepts. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit when the topics vary. Prerequisite: Graduate standing in the School of Biological Sciences, and consent of instructor and the graduate adviser.

### **BIO 380U. Brain, Behavior, and Evolution.**

Same as Neuroscience 380U. Integrative approaches to the study of brain and behavior within an evolutionary and comparative framework. Specifically, the integration of neuroscience, organismal behavior and physiology, behavioral ecology, evolutionary development, experimental evolution, molecular biology, genetics, genomics, systems biology, and bioinformatics. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 380U, 384K (Topic: Brain, Behavior, and Evolution), Neuroscience 380U, 385L (Topic: Brain, Behavior, and Evolution). Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 380V. Biological Foundations of Decision Making.**

Same as Neuroscience 380V. Explores the mechanisms biological organisms use to make decisions and how these mechanisms evolved.

Defines a conceptual framework for decision making that can be applied across levels of biological organization. Surveys current research on how animals make decisions using genetic, neurobiological, and evolutionary approaches. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 380V, 384K (Topic: Biological Foundations of Decision Making), Neuroscience 380V, 385L (Topic: Biological Foundations of Decision Making). Prerequisite: Graduate standing.

### **BIO 381. Advanced Plant Physiology.**

Concepts in the broad field of plant physiology. Includes aspects of plant growth, development, cell signaling, and stress responses that are very similar to these processes in animals, but will also illustrate unique aspects of plants that exemplify the diversity of life strategies on earth. Explores the critical skills needed to evaluate the current literature, data interpretation, and methods for solving key questions in the field. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 381, 389 (Topic: Advanced Plant Physiology), and 389 (Topic 12). Prerequisite: Graduate standing.

### **BIO 381K. Ecology, Evolution, and Behavior: Physiology and Biophysics.**

Lectures, conference discussion, and laboratory projects, depending on topic. Not all topics are offered every year. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser; additional prerequisites vary with the topic.

**Topic 1: Topics in Biophysics.** Irritability of living systems and the principles of energy transformation and transfer in organisms; emphasis on bioelectrical processes and electrical energy changes. Three lecture hours a week for one semester.

**Topic 2: Comparative Neurophysiology.** General treatment of the physiology of neurons, synapses, sensory and motor systems; neural basis of behavior; emphasis on invertebrates. Three lecture hours a week for one semester.

**Topic 3: Sensory Physiology.** Physiology and biophysics of the transduction and peripheral processes of the major sensory systems. Three lecture hours a week for one semester.

**Topic 4: Current Concepts in Neurobiology.** A series of seminars designed to give students a broad background in neurobiology. Three lecture hours a week for one semester.

**Topic 5: Laboratory in Neurophysiology.** Training in research techniques useful for the neurophysiological study of vertebrate and invertebrate nervous systems. Three lecture hours a week for one semester.

**Topic 6: Insect Physiology.** An in-depth study of the physiology of insect organ systems, development, and behavior. Three lecture hours a week for one semester.

**Topic 7: Developmental Neurobiology.** Neuronal cell lineage and differentiation, neuronal migration, axon guidance, neural cell death, synapse formation and maintenance. Three lecture hours a week for one semester.

**Topic 8: Addiction Biology.** Three lecture hours a week for one semester. Biology 381K (Topic 8) and Neuroscience 385L (Topic 3: Addiction Biology) may not both be counted.

**Topic 11: Current Concepts in Neurophysiology.** Three lecture hours a week for one semester.

### **BIO 381N. Basic Processes of Nerve Cells.**

Same as Neuroscience 381N. Degeneration and regeneration in nervous systems following traumatic injury; invertebrate versus vertebrate, peripheral nervous system versus central nervous system, axonal versus cell body, role of glia versus neurons. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 381K (Topic

10), 381N, Neuroscience 381N, 385L (Topic 1). Prerequisite: Graduate standing.

### **BIO 381P. Advanced Plant Physiology.**

General principles of mineral nutrition, water relations, metabolic activities, growth and development of green plants. Biology 381P and 389 (Topic 12) may not both be counted.

### **BIO 182, 282, 382, 682, 982. Advanced Study and Research.**

For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **BIO 382E. Epigenetics.**

Same as Neuroscience 382E. Study of how epigenetic modifications are covalent modifications of DNA or histones that cause changes in gene expression and how epigenetic modifications appear to be a method through which nurture or the environment can influence nature. Emphasis on how experience or environmental factors epigenetically modify health or behavior of animals. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 381K (Topic: Epigenetics), 382E, Neuroscience 382E. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### **BIO 382K. Computational and Statistical Biology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Recent Advances in Computational Biology.** Discussion of current scientific papers, methods, and ideas in computational biology and bioinformatics.

**Topic 2: Network Modeling in Biology.**

**Topic 3: Modeling Infectious Disease Dynamics.**

**Topic 4: Current Subjects in Biological Statistics.** Emphasis on the practical aspects of data management and analysis, including programming in R and related tools. Subjects may include general linear models, multivariate statistics, Bayesian statistics, model selection, and graphical presentation of data. The equivalent of three lecture hours a week for one semester. Additional prerequisite: At least one prior course in probability or statistics, at the undergraduate level or above.

**Topic 5: Informatics and Data Analysis in Life Sciences.** Introduction to concepts and methods of data-driven life science. Three lecture hours a week for one semester.

**Topic 6: Programming for Biology.** Explores programming skills that are relevant to research in the biological sciences, including but not limited to programming in Python, R, Perl, C++. Three lecture hours a week for one semester.

**Topic 7: Ecological Theory and Modeling.** Explores concepts and methods of modeling ecological systems including populations, communities and ecosystems. Focus on the methodology and utility of ecological theory and modeling. Examines the basic techniques and classic insights derived from differential equation, statistical, and individual based models. The ability to interpret and evaluate models in the literature will be emphasized.

**Topic 8: Introduction to Biology for Data Science.** Explore biological concepts and methods (including its assumptions and limitations), particularly in the areas of systems biology, medical and evolutionary genomics, and neuroscience. Focus on approaches that produce a lot of data but are analysis-challenged. Biology 382K (Topic: Intro to Bio for Data Science) and 382K (Topic 8) may not both be counted.

### **BIO 383K. Ecology, Evolution, and Behavior: Development and Reproduction.**

Three lecture hours a week for one semester, or as required by the topic. Not all topics are offered every year. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

**Topic 1: Hormonal Control of Development and Reproduction.** Three lecture hours a week for one semester.

**Topic 2: Techniques in the Study of Development and Reproduction.** Eight laboratory hours a week for one semester.

**Topic 3: Comparative Endocrinology.** Structure, function, and interrelationships of endocrine glands, with emphasis on the control of hormone synthesis and secretion and mechanisms of hormone action. Three lecture hours a week for one semester.

**Topic 4: Recent Advances in Development and Reproduction.** Discussion of recent scientific papers and their contribution to modern work in development and reproduction. Three lecture hours a week for one semester.

**Topic 5: Molecular Analysis of Development.** Lectures and discussion concerning the principles of animal development at the molecular level. Three lecture hours a week for one semester.

**Topic 8: Development and Evolution.** Three lecture hours a week for one semester.

**Topic 9: Survey of Animal Development.** Three lecture hours a week for one semester.

### **BIO 384C. Subjects and Skills in Ecology, Evolution, and Behavior I.**

Designed for first-year graduate students in ecology, evolution, and behavior. Study of why animals behave the ways they do. Study of the proximate and ultimate issues of animal behavior, how it is acquired and regulated, and how it evolved. Emphasis on integration of proximate and ultimate analyses in the various domains in which animals behave. First part of a two-semester sequence. Three lecture hours and one discussion hour a week for one semester. Biology 384C and 389D may not both be counted. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 384D. Subjects and Skills in Ecology, Evolution, and Behavior II.**

Designed for first-year graduate students in ecology, evolution, and behavior. Continuation of the study of why animals behave the way they do. Continued overview of both the proximate and ultimate issues of animal behavior, how it is acquired and regulated, and how it evolved. Emphasis on integration of proximate and ultimate analyses in the various domains in which animals behave. Second part of a two-semester sequence. Three lecture hours and one discussion hour a week for one semester. Biology 384D and 389E may not both be counted. Prerequisite: Graduate standing, Biology 384C, and consent of instructor and the graduate adviser.

### **BIO 384K. Ecology, Evolution, and Behavior.**

Basic concepts and methods of laboratory and field analysis in various fields of biology; systematics and ecology of natural populations. Lectures, conference discussions, and laboratory work, depending on topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser; additional prerequisites vary with the topic.

**Topic 29: Recent Advances in Population Ecology.** Seminar course; some written assignments required. Faculty- and student-led discussions of current subjects in population ecology. Three lecture hours a week for one semester. Additional prerequisite: Undergraduate upper-division ecology course (Biology 373 or similar course).

**Topic 30: Recent Advances in Community Ecology.** Seminar course. Faculty- and student-led lectures and discussions of current topics in community ecology. Some written assignments required. Three lecture hours a week for one semester. Additional prerequisite: Undergraduate upper-division ecology course (Biology 373 or similar course) required.

**Topic 31: Recent Advances in Ecosystem Ecology.** Seminar course. Faculty- and student-led lectures and discussions of current topics in ecosystem ecology. Some written assignments required. Three lecture hours a week for one semester. Additional prerequisite: Undergraduate upper-division ecology course (Biology 373 or similar course).

**Topic 32: Recent Advances in Macroecology.** Examines recent ideas and new findings in the fields of Macroecology, Biogeography, and Ecosystem Science. Three lecture hours a week for one semester.

**Topic 33: Recent Advances in Conservation Biology.** Seminar course. Faculty- and student-led discussions of current topics in population ecology. Some written assignments may be required. Three lecture hours a week for one semester. Additional prerequisite: Undergraduate upper-division ecology course (Biology 373 or similar course); undergraduate upper-division evolution course recommended.

**Topic 34: Recent Advances in Microbial Ecology.** Explores current subjects and controversies in microbial ecology, including community and ecosystem perspectives. Includes faculty- and student-led discussions of primary literature. Some written assignments required. Three lecture hours a week for one semester.

**Topic 35: Global Environmental Change.** Explores the knowledge of current environmental change and biological responses, efforts to understand and predict changes in the future through both experimental manipulations and models. Discussion of the scientific philosophy behind this work. Three lecture hours a week for one semester. Additional prerequisite: Undergraduate upper-division ecology course (Biology 373 or similar course); undergraduate upper-division evolution course recommended.

**Topic 36: Recent Advances in Evolution.** Examines recent and classic research and primary literature concerning general subjects within evolutionary biology. Three lecture hours a week for one semester. Additional prerequisite: Undergraduate upper-division evolution course (Biology 370 or similar course).

**Topic 37: Recent Advances in Coevolution.** Examines current and classic literature related to the coevolution of interacting species, including but not limited to host-parasite interactions, and mutualistic interactions. Three lecture hours a week for one semester.

**Topic 38: Recent Advances in Ecological and Evolutionary Genetics.** Discussion and analysis of current and classic literature related to ecological and evolutionary genetics. Three lecture hours a week for one semester.

**Topic 39: Phylogenetic Perspectives in Ecology, Evolution, and Behavior.** Theory, methods, and applications of phylogenetics in ecology, evolution, and behavior. The development of phylogenetics; the various phylogenetic optimality criteria and their advantages and disadvantages (include non-parametric, semi-parametric, and parametric methods); models of evolution for molecular and morphological data; algorithms and heuristics for searching solution space, including discussion of Bayesian Markov chain Monte Carlo approaches; phylogenetic simulation; statistical assessment of phylogenetic results; molecular clocks; and major applications of phylogenetics. Three lecture hours a week for one semester.

**Topic 40: Recent Advances in Biogeography and Phylogeography.** Reviews concepts and recent literature in Biogeography, Phylogeography, or Macroecology. Three lecture hours a week for one semester.

**Topic 41: Recent Advances in Molecular and Genomic Evolution.** Three lecture hours a week for one semester. Additional prerequisite: Undergraduate upper-division evolution course (Biology 370 or similar course).

**Topic 42: Human and Primate Evolutionary Genetics.** Three lecture hours a week for one semester. Anthropology 388 (Topic: Human/Primate Evolut Genetics) and Biology 384K (Topic 42) may not both be counted.

**Topic 43: Ancient and Environmental DNA.** Explores the prospects and challenges of ancient/environmental DNA research, and considers the applications in evolutionary biology, paleontology, and anthropology. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 388 (Topic: Ancient DNA) Biology 384K (Topic: Ancient DNA), 384K (Topic 43).

**Topic 44: Recent Advances in Behavior.** Explores recent and classic research and primary literature concerning general topics within behavioral ecology, and the evolution of behavior. Three lecture hours a week for one semester.

**Topic 45: Seminars in Brain Behavior and Evolution.** Explores how to give a seminar and/or writing a grant proposal. Preparation for job talks, paper presentations, or writing grants.

### **BIO 384L. Issues in Population Biology.**

Analysis at an advanced level of currently active areas of research in population biology. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 386. Topics in Plant Science: Ecology and Evolution.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser; additional prerequisites vary with the topic.

**Topic 10: Recent Advances in Plant Systematics.** Basic concepts and methods of laboratory and field analysis in various fields of biology; systematics and ecology of natural populations.

**Topic 11: Advanced Subjects in Plant Ecology.**

**Topic 12: Advanced Subjects in Plant Evolution.**

**Topic 13: Advanced Subjects in Plant Molecular Biology.**

### **BIO 386K. Plant Sciences.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Advanced Subjects in Plant Ecology.** Seminar course with faculty- and student-led lectures and discussions of current subjects in plant ecology. Additional prerequisite: Undergraduate upper-division ecology course (Biology 373 or similar course).

**Topic 2: Advanced Subjects in Plant Evolution.** Seminar course with faculty- and student-led lectures and discussions of current subjects in plant evolution. Additional prerequisite: Undergraduate upper-division evolution course (Biology 370 or similar course).

**Topic 3: Advanced Subjects in Plant Systematics.**

**Topic 4: Advanced Subjects in Plant Molecular Biology.** Seminar course with faculty- and student-led lectures and discussions of current subjects in plant molecular biology. Additional prerequisite: Undergraduate upper-division ecology course (Biology 373 or similar course).

### **BIO 386P. Foundations of Plant Biology.**

Restricted to students in the plant biology graduate program. Study of foundational ideas across the breadth of plant biology. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, and consent of the instructor and the graduate adviser.

### **BIO 287F. Plant Systematics.**

Principles of plant taxonomy, as exemplified by families of flowering plants found seasonally around Austin. Two lecture hours a week for one

semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 487G. Taxonomic Plant Anatomy.**

An advanced course that emphasizes those aspects of plant anatomy that are most reliable and useful for systematic purposes. Three lecture hours and two laboratory hours a week for one semester. Biology 472L and 487G may not both be counted. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 387J. Advanced Plant Anatomy.**

Plant anatomy in relation to development and differentiation, systematics, and evolution. Three lecture hours a week for one semester. Prerequisite: Graduate standing, consent of instructor and the graduate adviser, and concurrent enrollment in Biology 187L.

### **BIO 387K. Plant Evolution.**

The properties of plant populations, considered from genetic and ecological perspectives; mechanisms of evolution within and among populations. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 187L. Laboratory in Advanced Plant Anatomy.**

Demonstration of cellular details and tissue systems of plant organs, and instruction on the preparation of plant materials for histological examination. Three laboratory hours a week for one semester. Prerequisite: Graduate standing, consent of instructor and the graduate adviser, and concurrent enrollment in Biology 387J.

### **BIO 387M. Reproductive Biology of Flowering Plants.**

Pollination biology, breeding systems, and fruit and seed dispersal from evolutionary and ecological vantage points. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 387N. Plant Ecology.**

Advanced topics in plant ecology, including evaluation of ecological concepts, aspects of experimental ecology, and the principles of plant distribution. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 187P. Plant Ecology Laboratory.**

Demonstrations and experiments stressing plant ecological principles, including laboratory and field exercises. Three laboratory hours a week for one semester. Prerequisite: Graduate standing, consent of instructor and the graduate adviser, and credit or registration for Biology 387N.

### **BIO 387R. Population Ecology of Plants.**

A combination of lectures and student-led discussions covering major concepts and current literature in plant population ecology. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 387S. Laboratory Methods in Molecular Ecology and Systematics.**

An introduction to DNA methods in the study of molecular ecology, systematics, and evolution: DNA isolation and purification; DNA quantification; polymerase chain reaction; restriction fragment length polymorphism; random amplified polymorphic DNA; amplified fragment length polymorphism; cloning; simple sequence repeat (microsatellite) marker development; DNA sequencing; automated sequencing; automated genotyping; phylogenetic and population genetic analyses.

Seven laboratory hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 287T. Angiosperm Diversity Laboratory.**

Practical experience in recognizing, identifying, and classifying families of flowering plants. Four laboratory hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 388C. Transmembrane Signaling Mechanisms.**

Mechanisms by which hormones, light, and other stimuli trigger changes in plant and animal cell metabolism. Three lecture hours a week for one semester. Biology 343M and 388C may not both be counted. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 388D. Research Topics in Plant Biology.**

An introduction to various fields of plant biology. Students attend seminars, faculty research presentations, and other meetings. Three lecture hours a week for one semester, with additional meeting times to be arranged. Prerequisite: Graduate standing in the School of Biological Sciences.

### **BIO 388E. Plant Growth and Development.**

Emphasis on whole plant physiology, especially growth and development, water relations, and mineral nutrition of vascular plants. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 388J. General Phycology.**

Survey of the algae, including significant biological aspects of selected genera, research techniques, and readings in the literature. Three lecture hours a week for one semester. Biology 327 and 388J may not both be counted. Prerequisite: Graduate standing, consent of instructor and the graduate adviser, and concurrent enrollment in Biology 188K.

### **BIO 188K. Laboratory in General Phycology.**

Survey of various algal groups, including direct observations of their biology, exposure to research techniques, and instruction in cultural procedures. Three laboratory hours a week for one semester. Prerequisite: Graduate standing, consent of instructor and the graduate adviser, and concurrent enrollment in Biology 388J.

### **BIO 388L. Laboratory Studies in Cell Biology: Plant Biology.**

Research exercises involving light microscopy, including polarization, phase contrast, Nomarski interference, dark field, fluorescence, and bright-field optics. High-resolution transmission electron microscopy. Hands-on experience with atomic and molecular imaging, including digital image processing and time-lapse video microscopy. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 388M. Plant Molecular Biology.**

Fundamentals of plant molecular biology, including structure and expression of the chloroplast and mitochondrial genomes. Three lecture hours a week for one semester. Biology 350M and 388M may not both be counted. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 389C. Chemistry and Biology of Membranes.**

Consideration of the origin and structure of biological membranes at the microscopic and molecular levels; describes membrane function, especially with regard to transport properties. Three lecture hours a

week for one semester. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **BIO 389D. Subjects and Skills for Graduate Students in the Biological Sciences.**

Designed for first-year graduate students in ecology, evolution, and behavior. Provides training in many of the skills required of research scientists. Introduction to the writing, presentation and appraisal skills needed to excel in all fields of biological research. Three lecture hours a week for one semester. Biology 384C and 389D may not both be counted. Prerequisite: Graduate standing, and consent of instructor and graduate adviser.

### **BIO 389E. Subjects and Skills for Graduate Students in the Biological Sciences II.**

Explores the general subjects and skills required of research scientists, with an emphasis on the research, teaching, and service skills needed by professional biologists, as well as on the major research themes and questions in ecology, evolution, and behavior. Builds on the writing skills developed in Biology 389D to include issues of ethical behavior in research, effective presentation of results, oral presentation skills, interacting with the media, work-life balance, and public outreach. Three lecture hours a week for one semester. Biology 384D and 389E may not both be counted. Prerequisite: Graduate standing, Biology 389D, and consent of instructor and graduate adviser.

### **BIO 389K. Advanced Cell Biology.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 390C. Fundamentals of Evolution.**

Introduction to major principles and questions in evolutionary biology. Subjects include population genetics, genetic diversity, adaptation, origin of species, phylogenetics, molecular evolution, and macroevolution. Emphasis on identifying open questions, analysis and interpretation of data, and gaining familiarity with the primary scientific literature. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 390D. Fundamentals of Integrative Animal Behavior.**

Introduction to major principles and questions in animal behavior with emphasis on why animals behave the way they do. Study of both the proximate and ultimate issues of animal behavior, how it is acquired and regulated, and how it evolved. Emphasis on integration of proximate and ultimate analyses in the various domains in which animals behave. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 390E. Fundamentals of Ecology.**

Fundamentals of ecology, ranging from organism physiology to population, species, community, and ecosystem-level processes across landscapes and biomes. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **BIO 890G. Applied Public Health and Medical Microbiology.**

One semester (or one summer session) of full-time training in the Texas Department of Health Laboratories, with rotation in the divisions of medical microbiology, mycology, parasitology, virology, sanitary bacteriology, and biologics. Assigned reading and regular meetings with the Department of Health Laboratories staff and the molecular genetics and microbiology faculty. Forty hours of supervised fieldwork a week for one semester. Prerequisite: Graduate standing, consent of instructor and the graduate adviser, and courses in immunology, public health bacteriology, and virology.

### **BIO 290K. Scanning Electron Microscopy, Theory and Practice.**

Theory of scanning electron microscopy and basic principles of instrument design; basic procedures in specimen preparation; hands-on experience. Two lecture hours and six laboratory hours a week for six weeks. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 490M. Electron Microscopy I: Theory and Practice.**

An introduction to electron optics; emphasis on basic operation and maintenance of the transmission microscope; theory and practice of basic preparative techniques. Two lecture hours and six laboratory hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 390P. Techniques in Molecular Genetics.**

Laboratory training in modern molecular genetics, with emphasis on the manipulation of bacterial plasmid DNA as a model system. DNA purification, gene mapping and cloning, site-directed mutagenesis, polymerase chain reaction, and DNA sequencing. One lecture hour and seven laboratory hours a week for one semester. Biology 368L and 390P may not both be counted. Prerequisite: Graduate standing, consent of instructor and the graduate adviser, and Biology 366.

### **BIO 391. Grant Writing and Presentation Skills.**

Restricted to second-year graduate students in the microbiology and cell and microbiology programs. Preparation of a detailed proposal of the dissertation research goals of each student with a presentation in the form of a short talk. Emphasis on critical evaluation of research aims, methodology, and communication skills. Designed for second-year doctoral students in biology. Three lecture hours a week for one semester. Biology 391 and 394 (Topic: Grant Writing and Presentation Skills) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **BIO 391K. Cellular Immunology.**

Cell-associated immune responses, with emphasis on transplantation, immunity, tumor immunology, delayed hypersensitivity, and acquired cellular resistance. Three lecture hours a week for one semester. Prerequisite: Graduate standing, consent of instructor and the graduate adviser, and Biology 360K and 260L.

### **BIO 391P. Advanced Virology.**

Replication of and transformation by DNA and RNA animal viruses. Three lecture hours a week for one semester. Prerequisite: Graduate standing, consent of instructor and the graduate adviser, and Biology 330.

### **BIO 391R. Advanced Metabolism and Biochemistry of Microorganisms.**

Study of the metabolic processes of microorganisms, using a biochemical approach. Three lecture hours a week for one semester. Biology 339 and 391R may not both be counted. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **BIO 391S. Microbial Genetics.**

Molecular biology of nucleic acids; biosynthesis of macromolecules, transfer of genetic material from cell to cell, recombination, mutagenesis, and regulatory mechanisms. Three lecture hours a week for one semester. Biology 366 and 391S may not both be counted. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **BIO 392. Problems in Host-Parasite Biology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of

instructor and the graduate adviser; additional prerequisites vary with the topic.

**Topic 1: Current Topics in Virology and Immunology.**

**Topic 2: Current Topics in Pathogenic Mechanisms.**

### **BIO 392D. DNA Repair.**

Broad overview of the repair of DNA in archae, prokaryotes, eukaryotes, and viruses, focusing on the primary research literature, and developing critical thinking and presentation skills. Three lecture hours a week for one semester. Biology 392D and Biology 393 (Topic: DNA Repair) may not both be counted. Prerequisite: Graduate standing.

### **BIO 393. Problems in Molecular Genetics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser; additional prerequisites vary with the topic.

**Topic 1: Current Topics in DNA Transactions.**

**Topic 2: Current Topics in Fungal and Cell Molecular Biology.**

**Topic 3: Current Topics in Gene Regulation.**

### **BIO 394. Problems in Microbial Physiology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser; additional prerequisites vary with the topic.

**Topic 1: Current Topics in Cell Envelope Structure and Functions.**

**Topic 2: Current Topics in Microbial Signal Transduction.**

### **BIO 394L. Immunology.**

Introduction to the immune system for graduate students without prior coursework in immunology. Discuss innate immunity, the molecular basis of T cell and B cell antigen recognition, hematopoiesis and the development of lymphocytes, and cellular and humoral immune responses. Touch on immunodeficiency, autoimmunity, immunotherapy and vaccination. Explore current primary literature on select immunological topics in greater depth. Three lecture hours a week for one semester. Biology 394L and 394M (Topic 1) may not both be counted. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

### **BIO 394M. Advanced Studies in Microbiology.**

In-depth study of microbiology topics. Students read original research papers in addition to text assignments. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser; additional prerequisites vary with the topic.

**Topic 2: Advanced Microbial Signal Transduction.** Studies in molecular and cellular biology of a wide variety of signal transduction systems in diverse microorganisms; the role of signal transduction across biological membranes in allowing cells to recognize and respond to their environment.

**Topic 3: Advanced Medical Mycology.** Studies in medical mycology and an overview of research involving both the fungal zoopathogen and its host.

**Topic 4: Advanced Fungal Cell and Molecular Biology.** Studies of the structure, function, and biological activities of fungi, with emphasis on recent advances in research.

**Topic 5: Microbes, Infectious Disease, and Immunology.** Restricted microbiology, cell and molecular biology, and biochemistry majors.

Examine microbes, infectious disease, and immunology in-depth. Read, discuss and present original research papers.

#### **BIO 394T. Tumor Biology.**

Explore core aspects of cancer pathology, treatment, epidemiology, the discovery of oncogenes and tumor suppressors, and the molecular genetics underlying the characteristic features of malignant tumors (including metastatic behavior, genomic instability, angiogenesis, cell cycle regulation, and apoptosis). Emphasize the biochemical functions of cancer-related proteins and enzymes and therapeutic approaches based on understanding of these proteins. Examine important experimental approaches that have influenced the current understanding of cancer. Three lecture hours a week for one semester. Biology 384M (Topic: Tumor Biology) and 394T may not both be counted. Prerequisite: Graduate standing; consent of instructor and the graduate adviser

#### **BIO 395F. Genetics.**

Same as Chemistry 395F and Molecular Biology 395F. Basic principles of Mendelian and molecular genetics, and an exploration of the genetic toolbox using examples of analytic methods and modern genetic manipulations. Focus on the genetic analysis of model organisms. Use of genetic tools in dissecting complex biological pathways, developmental processes, and regulatory systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing. An introductory course in genetics, such as Biology 325, is strongly recommended.

#### **BIO 395G. Structure and Function of Proteins and Membranes.**

Same as Biochemistry 395G and Molecular Biology 395G. Detailed consideration of the structure and function of proteins, with discussion of enzyme mechanisms and kinetics, the biochemistry of energy production, and the metabolism of lipids and nucleotides. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 395G, Biology 395G, Molecular Biology 395G. Prerequisite: Graduate standing; a one-year undergraduate sequence in biochemistry is strongly recommended.

#### **BIO 395H. Cell Biology.**

Same as Chemistry 395H and Molecular Biology 395H. Detailed consideration of mechanisms of growth control, cell cycle regulation, mitosis, cell signaling, protein targeting, and the integration of these processes. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and consent of instructor or Biology 395F and 395G, Chemistry 395F, Molecular Biology 395F and 395G.

#### **BIO 395J. Genes, Genomes, and Gene Expression.**

Same as Biochemistry 395J and Molecular Biology 395J. Detailed consideration of prokaryotic and eukaryotic mechanisms of DNA replication and transcription; posttranscriptional processing of transcription products; and mechanism and regulation of the translation of messenger RNAs. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 395J, Biology 395J, Molecular Biology 395J. Prerequisite: Graduate standing; and Biology 395F and 395G, or Chemistry 395F and 395G, or Molecular Biology 395F and 395G, or consent of instructor.

#### **BIO 395L. Laboratory Studies in Molecular Biology.**

Explore modern molecular biology with a research project focus in a laboratory setting. Use methods such as eukaryotic RNA purification, quantitative PCR, CRISPR or site-directed mutagenesis cloning, cell fractionation, protein purification and Western blotting detection toward experimental goals. One lecture hour and six laboratory hours a week for one semester. Biology 395 and 395L may not both be counted.

#### **BIO 395M. Advanced Microbiology.**

Restricted to microbiology students. Prokaryotic and lower eukaryote genome organization; control of gene/operon/regulon expression; chromosome replication and its control; signal transduction; protein trafficking; organelle assembly; the cell cycle and its control; developmental processes; cell to cell communication; and DNA polymorphisms and adaptation. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

#### **BIO 396. Membranes and Walls of Bacteria.**

Structure, biosynthesis, and function of bacterial envelopes and walls, including associated optional components. Three lecture hours a week for one semester. Prerequisite: Graduate standing, consent of instructor and the graduate adviser, and a course in general microbiology and a course in general biochemistry.

#### **BIO 396R. Microbiology Research Seminar.**

Students present their research findings and receive feedback from faculty and peers. Designed to help students refine their presentation techniques, practice giving critical feedback, and gain familiarity with a wide variety of research topics. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **BIO 197. Seminar in Microbiology.**

One lecture hour a week for one semester. Required of all molecular genetics and microbiology majors. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

#### **BIO 397J. Advanced Genetics.**

Intended mainly for first- and second-year graduate students. Selected related topics of current interest with an emphasis on molecular developmental genetics, and any needed review of classical genetics. Designed to help the student to read the literature critically, deliver a good seminar, and participate in thoughtful discussion. Three lecture hours a week for one semester. May not be counted toward the doctoral degree in microbiology. Prerequisite: Graduate standing, consent of instructor and the graduate adviser, and a course in genetics.

#### **BIO 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in the School of Biological Sciences and consent of the graduate adviser; for 698B, Biology 698A or the equivalent.

#### **BIO 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in the School of Biological Sciences and consent of the graduate adviser.

#### **BIO 398T. Supervised Teaching in Biological Sciences.**

Teaching under the close supervision of course instructors; weekly group meetings with the instructor, individual consultations, and reports throughout the teaching period. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant.

#### **BIO 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

### **Professional Courses**

# Biomedical Engineering Courses

## Biomedical Engineering: BME

### Lower-Division Courses

#### **BME 303. Introduction to Computing.**

Restricted to biomedical engineering majors. Introduction to computing and programming, focusing on high-level programming languages. Emphasis on programming skills using C++ and Python as well as data acquisition using open-source computer hardware. Emphasis is on biomedical engineering applications for computing. Three lecture hours and two recitation hours a week for one semester. Offered on the letter-grade basis only.

#### **BME 303L. Introduction to Biomedical Engineering Design.**

Restricted to biomedical engineering majors. Biomedical engineering design concepts with hands-on learning applications. Three lecture hours and three laboratory hours a week for one semester. Biomedical Engineering 102L and 203L, 303L may not both be counted. Offered on the letter-grade basis only.

#### **BME 306. Fundamentals of Computing.**

Restricted to biomedical engineering majors. Introduction to computing including bits and operations on bits, number formats, arithmetic and logic operations, digital logic. Explore the Von Neumann model of processing including memory, arithmetic logic unit, registers, and instruction decoding and execution. Examine structured programming and debugging, machine and assembly language programming, the structure of an assembler, physical input/output through device registers, subroutine call/return; trap instruction, stacks and applications of stacks. Three lecture hours a week for one semester. Additional lab hours to be arranged. Only one of the following may be counted: Biomedical Engineering 306, Electrical Engineering 306, 306H. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 408C or 408K.

#### **BME 311. Network Analysis in Biomedical Engineering.**

Restricted to biomedical engineering majors. Basic concepts in circuit analysis and design of systems for biomedical engineering; Ohm's law, Kirchhoff's laws, and nodal and loop analysis; Theyenin's and Norton's theorem; operational amplifiers; high-order circuit and basic AC circuit analysis using Fourier and Laplace transforms. Three lecture hours a week for one semester. Biomedical Engineering 311 and Electrical Engineering 411 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Physics 303K with a grade of at least C-; and credit with a grade of at least C- or registration for: Mathematics 427J and Physics 303L.

#### **BME 313L. Introduction to Numerical Methods in Biomedical Engineering.**

Restricted to biomedical engineering majors. Introduces principles and techniques of numerical analysis of biomedical engineering problems. Examines numerical methods of integration, differentiation, interpolation, curve fitting, data analysis, sampling and estimation, error analysis, analysis of ordinary differential equations, numerical modeling of biomedical engineering systems, symbolic computation, and scientific visualization. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 211K, 311, Biomedical Engineering 313L, Computational Engineering 211K, 311K. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 303 or Computational Engineering 301, Biomedical Engineering 303L, and Mathematics 427J.

#### **BME 214L. Computational Fundamentals of Biomedical Engineering Design.**

Restricted to biomedical engineering majors. Overview of computational methods used to model biomedical systems, analyze data, and assist in the engineering design process. Subjects and hands-on learning applications include 3D modeling tools and computer aided manufacturing, flow simulation, instrumentation, biomedical imaging modalities, and biomedical informatics. Two lecture hours and three laboratory hours a week for one semester. Biomedical Engineering 314 and 214L may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 303 or Computational Engineering 301, Biomedical Engineering 303L, and Physics 303K and 103M; and credit with a grade of at least C- or registration for: Biomedical Engineering 311 or Electrical Engineering 411, Mathematics 427J, and Physics 303L and 103N.

### Upper-Division Courses

#### **BME 320. International Perspectives on Biomedical Engineering Design.**

Activities to consider sociotechnical factors in designing clinically translatable solutions with a focus on international perspectives. Three lecture hours a week for one semester. Biomedical Engineering 320 and 377T (Topic: International Perspectives on Biomedical Engineering Design) may not both be counted.

#### **BME 325L. Cooperative Engineering.**

Restricted to biomedical engineering majors. Covers the work period of biomedical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Biomedical Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Biomedical Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Biomedical Engineering 325LY and appointment for a full-time cooperative work tour.

#### **BME 225M. Cooperative Engineering.**

Restricted to biomedical engineering majors. Covers the work period of biomedical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Biomedical Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Biomedical Engineering 225MA and appointment for a full-time cooperative work tour.

#### **BME 125N. Cooperative Engineering.**

Restricted to biomedical engineering majors. Covers the work period of biomedical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Biomedical Engineering 325LZ or 225MB, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

#### **BME 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Biomedical Engineering.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Biomedical Engineering. University credit

is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **BME 333T. Engineering Communication.**

Restricted to biomedical engineering majors. Advanced communication skills for engineers, with emphasis on biomedical engineering topics. Strategies for written, visual, and interpersonal communication, and for oral presentation. Introduction to library research and to ethical decision making in biomedical engineering. Three lecture hours and one recitation hour a week for one semester. Only one of the following may be counted: Aerospace Engineering 333T, Biomedical Engineering 333T, Communication 333T, Civil Engineering 333T, Chemical Engineering 333T, Electrical Engineering 333T, Engineering Studies 333T, Mechanical Engineering 333T, Petroleum and Geosystems Engineering 333T. Offered on the letter-grade basis only. Prerequisite: English 303C (or 603A) or Rhetoric and Writing 306 with a grade of at least C-.

### **BME 335. Engineering Probability and Statistics.**

Restricted to biomedical engineering majors. Fundamentals of probability, random processes, and statistics with emphasis on biomedical engineering applications. Includes hypothesis testing, regression, and sample size calculations. The equivalent of four lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Biomedical Engineering 303 or Computational Engineering 301, and Mathematics 408D or 408M with a grade of at least C- in each.

### **BME 336. Cancer Bioengineering.**

Restricted to biomedical engineering majors. Comprehensive overview of the biology and pathology of cancer. Emphasis on the fundamental nature of cancer, the roles of genetics and the environment, and the contributions of heterotypic tissues in the tumor microenvironment. Exploration of current challenges in the field and ways that various engineering tools are transforming the future of cancer research. Three lecture hours a week for one semester. Biomedical Engineering 336 and 377T (Topic: Cancer Bioengineering) may not both be counted. Prerequisite: Upper-division standing, Biochemistry 369 and Biology 311C or 315H with a grade of at least C- in each.

### **BME 338. Thin Film Mechanics.**

Restricted to biomedical engineering majors. Examine mechanical testing, design, and failure analysis of thin film structures and devices, with an emphasis on mechanics-related subjects including stress, fracture, delamination, and instability. Explore important technological applications of film materials, including integrated circuits, micro- and nano-electromechanical systems, flexible and stretchable electronics, bioelectronics, and surface coatings. Three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 349 and 352 with a grade of at least C- in each.

### **BME 339. Biochemical Engineering.**

Restricted to biomedical engineering majors. Principles of fermentation and cell culture technologies; introduction to recombinant DNA technology and protein expression; the development of therapeutics, vaccines, and diagnostics using genetic engineering. The equivalent of four lecture hours a week for one semester. Only one of the following may be counted: Biology 335, Biomedical Engineering 339, Chemical Engineering 339, 379 (Topic: Introduction to Biochemical Engineering). Prerequisite: Upper-division standing, Biochemistry 369 and Biology 311C or 315H with a grade of at least C- in each.

### **BME 340. Soft Tissue Biomechanics.**

Restricted to biomedical engineering majors. Explore soft tissues and soft tissue mechanics. Examine fundamentals of continuum mechanics

(kinematics, stress, balance of linear momentum, hyperelasticity), experimental and nonlinear finite element analysis of soft tissue mechanics, and relevant imaging modalities and facilities available on campus. Three lecture hours a week for one semester. Biomedical Engineering 340 and 377T (Topic: Soft Tissue Biomechanics) may not both be counted. Prerequisite: Biomedical Engineering 352 and 353 with a grade of at least C- in each; and consent of instructor.

### **BME 342. Biomechanics of Human Movement.**

Restricted to biomedical engineering majors. Modeling and simulation of human movement; neuromuscular control; computer applications; introduction to experimental techniques. Three lecture hours a week for one semester. Biomedical Engineering 342 and Mechanical Engineering 354M may not both be counted. Prerequisite: Biomedical Engineering 344 or Engineering Mechanics 319 with a grade of at least C-.

### **BME 343. Biomedical Engineering Signal and Systems Analysis.**

Restricted to biomedical engineering majors. Signals and systems representation; sampling and quantization; time and frequency domains; Laplace and z-transforms, transfer functions, and frequency response; two-port networks; Bode plots; convolution; stability; Fourier series; Fourier transform; AM/FM modulation; filter design; and applications in biomedical engineering. Three lecture hours a week for one semester. Biomedical Engineering 343 and Electrical Engineering 313 may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 311 or Electrical Engineering 411, Biomedical Engineering 313L or Computational Engineering 311K, and Mathematics 427J.

### **BME 344. Biomechanics.**

Restricted to biomedical engineering majors. Examine the principles of engineering mechanics and their applications to basic problems in biomechanics and biomedical engineering. Explore internal forces and deformations in solids, including stress, strain, tension, compression, torsion, bending, internal pressure, and failure analysis under combined mechanical loading. Three lecture hours a week for one semester. Biomedical Engineering 344 and 377T (Topic: Biomechanics) may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 303L, Mathematics 427J, and Physics 303K.

### **BME 345. Graphics and Visualization Laboratory.**

Restricted to biomedical engineering majors. Introduction to techniques for graphical display of biological data. Subjects include transformations, geometric modeling, and two- and three-dimensional display algorithms. Includes computational projects with biomedical applications. Four and one-half laboratory hours a week for one semester. Prerequisite: Electrical Engineering 422C and Mathematics 340L with a grade of at least C- in each.

### **BME 245L. Experimental Principles of Biomedical Engineering Design.**

Restricted to biomedical engineering majors. Exploration of biomedical engineering design principles through open-ended, hands-on research applications involving mechanical testing, cell culture, and biomaterials. Analysis and interpretation of experimental data, including written reporting of outcomes in scientific journal format. Two lecture hours and three laboratory hours a week for one semester. Biomedical Engineering 221 and 245L may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Biology 206L, Biomedical Engineering 214L, Biomedical Engineering 335 or Mechanical Engineering 335, Biomedical Engineering 344 or Engineering Mechanics 319, and one of the following: Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering

333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

#### **BME 346. Computational Biomolecular Engineering.**

Restricted to biomedical engineering majors. Introduction to computational structural biology and molecular modeling, including the fundamentals of biomolecular structure and molecular thermodynamics. The principles and applications of biomolecular modeling used to explore the critical relationship between structure, function, and thermodynamic driving forces in molecular biology. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C-: Biochemistry 369, Biology 311C or 315H, Biomedical Engineering 313L or Computational Engineering 311K, and one of the following: Biomedical Engineering 355, Chemistry 353 or 353M.

#### **BME 347. Fundamentals of Biomedical Optics.**

Restricted to biomedical engineering majors. Introduction to the field of biophotonics. Subjects include light scattering theory, tissue optical properties, analytical and numerical techniques for determining light propagation in tissue, light-tissue interactions, and bioheat transfer including solution methods. Three lecture hours a week for one semester. Biomedical Engineering 347 and 377T (Topic: Fundamentals of Biomedical Engineering Optical Imaging) may not both be counted. Prerequisite: Biomedical Engineering 353 with a grade of at least C-.

#### **BME 348. Modeling of Biomedical Engineering Systems.**

Restricted to biomedical engineering majors. Lumped and distributed models of physiological system function from molecular through organismal levels. Linear system steady-state and transient behaviors. Interactions among multiple energy domains, including electrical, chemical, diffusional, mechanical, fluid, and thermal. Introduction to feedback control. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 214L, and Biomedical Engineering 343 or Electrical Engineering 313 with a grade of at least C- in each.

#### **BME 348P. Introduction to Computational and Systems Biology.**

Restricted to biomedical engineering majors. Introduction to big data technology platforms, data science analytical algorithms and artificial intelligence in computational biology and medicine and network science. Examine DNA sequence alignment and search, high-throughput big data platforms and analysis, network science, multi-omics profiling, statistics, motif finding, molecular structure prediction, genome-wide association studies, artificial intelligence, and personalized precision medicine. Explore computational algorithms including hidden Markov model, clustering, classification methods, and others. Three lecture hours a week for one semester. Only one of the following may be counted: Biomedical Engineering 348P, 377T (Topic: Intro to Comp/Systems Bio), Chemistry 368 (Topic: Intro to Comp/Systems Bio), Computer Science 378 (Topic: Intro to Comp/Systems Bio). Prerequisite: The following coursework with a grade of at least C- in each: Biochemistry 369, Biology 311C or 315H, Biomedical Engineering 335 or Mechanical Engineering 335, and Biomedical Engineering 343 or Electrical Engineering 313.

#### **BME 349. Biomedical Instrumentation.**

Restricted to biomedical engineering majors. Introduction to biomedical instrumentation, design, and applications. Emphasis on the complete instrumentation development cycle, design for bio-compatibility, safety and efficacy, and design considerations specific to various medical specialties. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Biomedical Engineering 343 or Electrical Engineering 313 with a grade of at least C-.

#### **BME 350. Computational Methods for Biomedical Engineers.**

Restricted to biomedical engineering majors. Study of and hands-on experiences with computational methods commonly employed in biomedical engineering research. Three lecture hours a week for one semester. Biomedical Engineering 350 and 377T (Topic: Computational Methods for Biomedical Engineers) may not both be counted. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 313L or Computational Engineering 311K, Biomedical Engineering 214L, and Biomedical Engineering 335 or Mechanical Engineering 335.

#### **BME 352. Engineering Biomaterials.**

Restricted to biomedical engineering majors. Overview of properties of metallic, ceramic, polymeric, and composite biomaterials used in biomedical applications. Material synthesis and processing. Analysis of mechanical and chemical properties, including stress-strain. Material interactions with the body and blood. Soft and hard biomaterials applications. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Biochemistry 369, and Biomedical Engineering 344 or Engineering Mechanics 319.

#### **BME 353. Transport Phenomena in Living Systems.**

Restricted to biomedical engineering majors. Introduction to the principles of heat, mass and momentum transfer and their application to solve problems in living systems. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 214L, Mathematics 427J, and Physics 303L and 103N.

#### **BME 354. Molecular Sensors and Nanodevices for Biomedical Engineering Applications.**

Restricted to biomedical engineering majors. Introduction to major types of molecular sensor systems, device miniaturization, and detection mechanisms, including molecular capture mechanisms; electrical, optical, and mechanical transducers; micro-array analysis of biomolecules; semiconductor and metal nanosensors; microfluidic systems; and microelectromechanical systems (MEMS, BioMEMS) fabrication and applications for biomedical engineering. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 313L or Computational Engineering 311K, Biomedical Engineering 335 or Mechanical Engineering 335, and Biomedical Engineering 344 or Engineering Mechanics 319.

#### **BME 355. Molecular Engineering.**

Restricted to biomedical engineering majors. Working principles of biomolecules such as proteins and nucleic acids. Physical and chemical basis for biomolecular structure, energetics, and function. Three hours of lecture a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Biochemistry 369, Biology 311C or 315H, Mathematics 427J, and Physics 303L and 103N.

#### **BME 356. Polymer and Bioconjugate Chemistry.**

Restricted to biomedical engineering majors. Introduction to synthetic principles of polymeric biomaterials and bioconjugate chemistry with an emphasis on synthetic strategies to achieve specific properties. Explores characterization methods of polymers and bioconjugates as a function of chemical composition, as well as tissue engineering and drug delivery applications as case studies of the biomaterial design process. Three lecture hours a week for one semester. Biomedical Engineering 356 and 377T (Topic: Polymer/Bioconjugate Chem) may not both be counted.

Prerequisite: Biomedical Engineering 352 or Chemical Engineering 350 with a grade of at least C-.

### **BME 357. Biomedical Imaging Modalities.**

Restricted to biomedical engineering majors. Introduction to major biomedical imaging modalities, including X-ray radiography, computed tomography (CT), nuclear medicine (SPECT and PET), magnetic resonance imaging (MRI), and ultrasound. Emphasis on principles, approaches, and applications of each imaging modality. Basic physics and imaging equations of the imaging system; hardware and software; sources of noise and primary artifacts; safety and patient risk. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 349 and 261L with a grade of at least C- in each.

### **BME 358. Medical Decision Making.**

Restricted to biomedical engineering majors. Understanding of the nature of expertise and related subjects of cognitive psychology and human-made interaction to be able to design more effective systems for supporting medical decision making. Three lecture hours a week for one semester. Biomedical Engineering 358 and 377T (Topic: Medical Decision Making) may not both be counted. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 313L or Computational Engineering 311K, Biomedical Engineering 214L, and Biomedical Engineering 335 or Mechanical Engineering 335.

### **BME 359. Cellular and Molecular Biomechanics.**

Restricted to biomedical engineering majors. Introduction to the concepts needed to understand and work in the emerging field of cellular and molecular biomechanics. Examination of dynamic interplay between chemical, thermal, and physical forces in determining the mechanics of cells/tissues and their molecular components. Three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 344 or Engineering Mechanics 319, and Biomedical Engineering 353 with a grade of at least C- in each.

### **BME 261L. Development and Analysis in Biomedical Engineering Design.**

Restricted to biomedical engineering majors. The design and development of a working biomedical engineering device prototype. Focus on the full engineering design process, including reviews and documentation, and general project management strategies. Also considers the impact of markets, budgets, and the FDA on device requirements and design. Two lecture hours and three laboratory hours a week for one semester. Biomedical Engineering 251 and 261L may not both be counted. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 343 or Electrical Engineering 313, and Biomedical Engineering 245L.

### **BME 362. Introduction to Nonlinear Dynamics in Biological Systems.**

Restricted to biomedical engineering majors. Introduction to various concepts from nonlinear mathematics and their application to biological systems, ranging from sub-cellular to whole ecosystems levels of investigation. Three lecture hours a week for one semester. Biomedical Engineering 362 and 377T (Topic: Introduction to Nonlinear Dynamics in Biological Systems) may not both be counted. Prerequisite: Biomedical Engineering 313L or Computational Engineering 311K, and Biomedical Engineering 344 or Engineering Mechanics 319 with a grade of at least C- in each.

### **BME 362E. Medical Device Innovation.**

Money, markets, and entrepreneurship with particular focus on medical and health markets. Two lecture hours a week for one semester. Additional hours to be arranged. Biomedical Engineering 362E and 277T

(Topic: Medical Device Innovation: From Lab to Marketplace) may not both be counted.

### **BME 363E. Medical Device Design and Manufacturing.**

Restricted to biomedical engineering majors. Application of engineering principles in the conception, design and prototyping of medical devices. Development of team projects with emphasis on clinical and market needs analysis, creative and useful concept generation, engineering requirements and specifications, and written and oral reporting of intermediate and final prototype outcomes. Three lecture hours a week for one semester. Only one of the following may be counted: Biomedical Engineering 363E, 377T (Topic: Medical Device Design and Manufacturing), Mechanical Engineering 371D, 379M (Topic: Medical Device Design and Manu). Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 349, 353, and 261L.

### **BME 364. Biological Responses to Medical Devices.**

Restricted to biomedical engineering majors. Explore common biological responses elicited by biomaterials and the impact of these responses on material performance. Emphasis on key challenges in the development and assessment of biomaterials used in medical devices. Includes material surface properties, modification, and characterization; protein/cell interactions with materials; biocompatibility, inflammation and wound healing, cell-mediated biodegradation of materials; thrombosis, infection and calcification of medical devices. Three lecture hours a week for one semester. Biomedical Engineering 364 and 377T (Topic: Biol Responses to Medical Dev) may not both be counted. Prerequisite: Biomedical Engineering 352 with a grade of at least C-.

### **BME 365. Tissue Microenvironments.**

Restricted to biomedical engineering majors. Introduction to, and hands-on applications for, fabrication/bioprinting of tissues on a chip and characterization of mechanical, thermal, transport, and cellular/tissue responses to varying properties of associated microenvironments. Three lecture hours a week for one semester. Biomedical Engineering 365 and 377T (Topic: Tiss Microenv Fab/Tran/Mech) may not both be counted. Prerequisite: Biomedical Engineering 352 and 353 with a grade of at least C- in each.

### **BME 365R. Quantitative Engineering Physiology I.**

Restricted to biomedical engineering majors. A quantitative, model-oriented approach to human physiology, including basic cellular physiology, electrophysiology of nerve and muscle, the motor system, the central nervous system, and the cardiovascular system. The equivalent of four lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Biology 311C or 315H, Biomedical Engineering 214L, and Physics 303L and 103N; and credit with a grade of at least C- or registration for: Biochemistry 369 and Biomedical Engineering 343 or Electrical Engineering 313.

### **BME 365S. Quantitative Engineering Physiology II.**

Restricted to biomedical engineering majors. Biological control systems: sensory, renal, respiratory, and immune systems. Focuses on a quantitative, model-oriented approach to physiological systems. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Biomedical Engineering 365R with a grade of at least C-.

### **BME 366. Immune Engineering.**

Restricted to biomedical engineering majors. Introduction to various aspects and applications of immune engineering. Subjects include vaccine design, cancer immunotherapy, genomics, infection, auto-immune diseases and emerging tools and methodologies. Three lecture hours a week for one semester. Biomedical Engineering 366 and 377T

(Topic: Immune Engineering) may not both be counted. Prerequisite: Biomedical Engineering 365R and 365S with a grade of at least C- in each.

### **BME 367. Design of Artificial Organs.**

Restricted to biomedical engineering majors. Analysis of the design process for blood-contacting medical devices with an emphasis on ventricular assist devices. Application of computational fluid dynamics and blood rheology to computer-aided design and testing of devices using specific software programs and 3D printing of functioning prototypes. Three lecture hours a week for one semester. Biomedical Engineering 367 and 377T (Topic: Design of Artificial Organs) may not both be counted. Prerequisite: Credit with a grade of at least C- or registration for Biomedical Engineering 353 and 365R.

### **BME 368. Introduction to Mathematical and Physical Biology.**

Restricted to biomedical engineering majors. Introduction to common mathematical and physical techniques used in modeling various aspects of biology at multiple spatial and temporal scales. Analyze critical techniques with words and pictures, and then equations including the computational implementation and simulation of those equations. Three lecture hours a week for one semester. Biomedical Engineering 368 and 377T (Topic: Intro Mathematical & Phys Bio) may not both be counted. Prerequisite: Biomedical Engineering 343 or Electrical Engineering 313 with a grade of at least C-.

### **BME 369. Biomimetic Design and Engineering.**

Restricted to biomedical engineering majors. Overview of the core concepts of biomimetic microengineering with particular focus on engineered microphysiological models of human organs, tissues and disease pathophysiology. Three lecture hours a week for one semester. Biomedical Engineering 369 and 377T (Topic: Biomimetic Dsgn/ Engineering) may not both be counted. Prerequisite: Upper-division standing, Biochemistry 369 and Biology 311C or 315H with a grade of at least C- in each.

### **BME 370. Biomedical Engineering Capstone Design I.**

Restricted to biomedical engineering majors. Structured methodologies for designing systems or to interface with living systems. Creative design, analysis, selection, development, and fabrication of biomedical components and systems. Three lecture hours and two laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 349, 352, 353, 261L, and 365S.

### **BME 371. Biomedical Engineering Capstone Design II.**

Restricted to biomedical engineering majors. Development of team projects in biomedical engineering with emphasis on prototype development and quantitative analysis, and written and oral reporting of the outcome. Two lecture hours and four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Biomedical Engineering 370 with a grade of at least C-.

### **BME 372. Computational Modeling of the Cardiovascular System.**

Restricted to biomedical engineering majors. Analyze mathematical models and simulations of the cardiovascular system. Examine biomechanical simulations including the biomechanical function of the heart, heart valves, and the vasculature. Three lecture hours a week for one semester. Biomedical Engineering 372 and 377T (Topic: Comput Modlg: Cardiovasc Sys) may not both be counted. Prerequisite: Biomedical Engineering 343 and 365R with a grade of at least C- in each.

### **BME 373. Tissue, Scaffold, and Cell Biomechanics Applications.**

Restricted to biomedical engineering majors. Fundamentals of biosolid mechanics via the mechanical behavior of scaffolds and living tissues and cells. Emphasis on biomechanical applications to contemporary problems in biomedical research and medical devices. Three hours of lecture a week for one semester. Biomedical Engineering 373 and 377T (Topic: Cell, Tissue and Scaffold Biomechanics for Contemporary Biomedical Engineering Applications) may not both be counted. Prerequisite: Biomedical Engineering 344 or Engineering Mechanics 319, and Biomedical Engineering 352 with a grade of at least C- in each.

### **BME 374. Optical Design.**

Restricted to biomedical engineering majors. Explore the principles of optical design for imaging and laser delivery systems. Examine the development and testing of designs using optical design software. Three lecture hours a week for one semester. Biomedical Engineering 374 and 377T (Topic: Optical Design) may not both be counted. Prerequisite: Biomedical Engineering 343 or Electrical Engineering 313 with a grade of at least C-.

### **BME 374K. Biomedical Instrument Design.**

Restricted to biomedical engineering, electrical engineering, and mechanical engineering majors. Application of electrical engineering principles in the design of electronic instrumentation at the circuit-board level for the measurement of pressure, temperature, flow, and impedance. Also includes the study of light intensity, bioelectric potentials, and stimulation devices such as pacemakers and defibrillators. Focus on design considerations specific to electro-medical environments, safety and efficacy, and public policy issues. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 438 with a grade of at least C-.

### **BME 374L. Applications of Biomedical Instrumentation Lab.**

Restricted to biomedical engineering, electrical engineering, and mechanical engineering majors. An in-depth examination of selected subjects in biomedical engineering, including optical and thermal properties of laser interaction with tissue; measurement of perfusion in the microvascular system; diagnostic imaging; interaction of living systems with electromagnetic fields; robotic surgical tools; ophthalmic instrumentation; and noninvasive cardiovascular measurements. Students have the opportunity to design analog and digital measurements and acquire and process meaningful biomedical signals. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: One of the following with a grade of at least C-: Biomedical Engineering 349, 374K, Electrical Engineering 438 or 374K.

### **BME 375. Stem Cells in Cell and Tissue Engineering.**

Restricted to biomedical engineering majors. Analysis of recent cell and tissue engineering applications of human embryonic stem cells (hESC) and induced pluripotent stem cells (iPSC). Focus on case studies of each organ in the human body and how it can be engineered using stem cells. Three lecture hours a week for one semester. Biomedical Engineering 375 and 377T (Topic: Stem Cells in Cell and Tissue Engineering) may not both be counted. Prerequisite: Biomedical Engineering 352 and 365S with a grade of at least C- in each.

### **BME 376. Cell Engineering.**

Restricted to biomedical engineering majors. Introduction to principles that govern the structure, organization, and processes at cellular and subcellular levels. Special focus on engineering and quantitative aspects of cellular machinery. Employs engineering approaches to study receptors, macromolecular complexes, and cellular signaling; clinical and pharmaceutical approaches to perturb cellular structure and function for disease prevention and drug design. State-of-the-art experimental and

computational techniques to study cellular engineering. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Biochemistry 369 and Biology 311C or 315H with a grade of at least C- in each.

### **BME 177, 277, 377. Undergraduate Research Project.**

Initiate opportunity individually and select project in conjunction with a faculty member on the Department of Biomedical Engineering's Graduate Studies Committee (GSC) or in another approved University department. A final written report or the equivalent is required. Recommended for students considering graduate study or medical school. Three, six, or nine laboratory hours a week for one semester.

### **BME 377M. Medical Internship.**

Restricted to biomedical engineering majors. Initiate opportunity individually, which may include participation in a variety of medical and clinical activities which apply engineering principles to solve problems in healthcare. A substantial final report or the equivalent is required. Designed for students considering medical school. The equivalent of three lecture hours a week for one semester.

### **BME 377R. Research Internship.**

Restricted to biomedical engineering majors. Initiate opportunity individually and select project in conjunction with a faculty member at an approved institution. A final written report or the equivalent is required. The equivalent of three lecture hours a week for one semester.

### **BME 377S. Industrial Internship.**

Restricted to biomedical engineering majors. Practical work experience in industry or a government agency under the supervision of an engineer, scientist or business professional. A substantial final report or the equivalent is required. The equivalent of three lecture hours a week for one semester.

### **BME 177T, 277T, 377T. Topics in Biomedical Engineering.**

Restricted to biomedical engineering majors. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Prerequisites vary with the topic.

### **BME 678. Undergraduate Thesis in Biomedical Engineering.**

Restricted to biomedical engineering majors. Research performed during two consecutive semesters under the supervision of a biomedical engineering faculty member or other approved faculty member; topics are selected jointly by the student and faculty member. The student provides a progress report at the end of the first semester and writes a thesis and gives an oral presentation at the end of the second semester. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a Bachelor of Science in Biomedical Engineering may use this course to fulfill the thesis requirements for the Bachelor of Arts, Plan II. Prerequisite: For 678A, admission to the major sequence in biomedical engineering and a University grade point average of at least 3.50; for 678B, a University grade point average of at least 3.50 and Biomedical Engineering 678A.

### **BME 379. Tissue Engineering.**

Restricted to biomedical engineering majors. Introduction to biomedical research in tissue engineering. Includes case studies of tissues and organs of the body, physiology and biology of tissue, pathologies of tissue, current clinical treatments, the role of engineers in development of new technologies to diagnose and treat pathologies, quantitative cellular and molecular techniques, and applications of synthetic and natural biomaterials. Three lecture hours a week for one semester. Only one of the following may be counted: Biomedical Engineering 379, Chemical Engineering 339T, 379 (Topic: Cell and Tissue Engineering).

Prerequisite: Biomedical Engineering 352 and 365S with a grade of at least C- in each.

### **BME 679H. Undergraduate Honors Thesis.**

Restricted to biomedical engineering majors. Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Biomedical Engineering 679HA and enrollment in the Engineering Honors Program.

## **Graduate Courses**

### **BME 180J, 380J. Fundamentals of Biomedical Engineering.**

One or three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **Topic 1: Mathematical Modeling in Biomedical Engineering.**

Conservation of mass, momentum, energy, and charge; first and second laws of thermodynamics; first- and second-order differential equations; nonlinear differential equations; partial differential equations as applied to biomedical engineering problems.

#### **Topic 2: Quantitative Systems Physiology and Pathophysiology.**

Modeling of physiological systems from the molecular and cellular levels to the systems level; focus on the neuromuscular and cardiovascular systems. Prerequisite: An undergraduate physiology course or the equivalent, and consent of instructor.

**Topic 3: Principles of Biomeasurement.** Principles of signal measurement in the biomedical field; survey of transducers used for chemical, mechanical, electrical, and thermal biomedical measurements; analysis of how signals are converted into digital form; analysis of noise; aliasing; data storage.

**Topic 4: Fields, Forces, and Flows.** Introduction to mathematical models that integrate different energy domains and length scales, with an emphasis on the coupling between them. Prerequisite: Biomedical Engineering 380J (Topic 1) and 380J (Topic 2).

#### **Topic 5: Biostatistics, Study Design, and Research Methodology.**

Principles for hypothesis testing; confidence limits; regression analysis; correlation; analysis of variance; experimental design and factorial analysis; discriminate analysis; applications of statistics. Prerequisite: An undergraduate probability theory course or the equivalent, and consent of instructor.

**Topic 6: Analysis of Biomedical Engineering Systems I.** Quantitative examination of the cardiovascular and respiratory systems from the cell to system levels. Presents the cardiovascular and respiratory systems in three phases: (1) anatomy and physiology; (2) energetics (thermodynamics), cellular processes, and engineering analysis; and (3) engineered devices, instrumentation, and imaging for therapeutics and diagnosis. Additional prerequisite: A course in physiology, proficiency in MATLAB, and consent of the graduate adviser.

#### **Topic 7: Analysis of Biomedical Engineering Systems II.**

Computational techniques used in biomedical engineering. Students propose and conduct an engineering design study relevant to a selected medical problem. Additional prerequisite: Biomedical Engineering 380J (Topic 6).

### **BME 080M. Dual MD/PhD Program with UT Medical Branch.**

Preclinical medical study at the University of Texas Medical Branch at Galveston. May not be taken concurrently with another course at the University of Texas at Austin. Prerequisite: Graduate standing

and admission to the MD/PhD dual degree program in biomedical engineering.

### **BME 381J. Topics in Cell and Molecular Imaging.**

Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in engineering and consent of instructor; additional prerequisites vary with the topic.

**Topic 1: Laser-Tissue Interaction: Thermal.** Same as Electrical and Computer Engineering 385J (Topic 9). The thermal response of random media in interaction with laser irradiation. Calculation of the rate of heat production caused by direct absorption of the laser light, thermal damage, and ablation. Only one of the following may be counted: Biomedical Engineering 381J (Topic 1), Electrical and Computer Engineering 385J (Topic 9), Electrical Engineering 385J (Topic 9).

**Topic 2: Laser-Tissue Interaction: Optical.** Same as Electrical and Computer Engineering 385J (Topic 16). The optical behavior of random media such as tissue in interaction with laser irradiation. Approximate transport equation methods to predict the absorption and scattering parameters of laser light inside tissue. Port-wine stain treatment; cancer treatment by photochemotherapy; and cardiovascular applications. Only one of the following may be counted: Biomedical Engineering 381J (Topic 2), Electrical and Computer Engineering 385J (Topic 16), Electrical Engineering 385J (Topic 16).

**Topic 3: Imaging Signals and Systems.** Same as Electrical and Computer Engineering 385J (Topic 18). Physical principles and signal processing techniques used in thermographic, ultrasonic, and radiographic imaging, including image reconstruction from projections such as CT scanning, MRI, and millimeter wave determination of temperature profiles. Only one of the following may be counted: Biomedical Engineering 381J (Topic 3), Electrical and Computer Engineering 385J (Topic 18), Electrical Engineering 385J (Topic 18).

**Topic 4: Optical Spectroscopy.** Same as Electrical and Computer Engineering 385J (Topic 23). Measurement and interpretation of spectra: steady-state and time-resolved absorption, fluorescence, phosphorescence, and Raman spectroscopy in the ultraviolet, visible, and infrared portions of the spectrum. Only one of the following may be counted: Biomedical Engineering 381J (Topic 4), Electrical and Computer Engineering 385J (Topic 23), Electrical Engineering 385J (Topic 23).

**Topic 5: Therapeutic Heating.** Same as Electrical and Computer Engineering 385J (Topic 26). Engineering aspects of electromagnetic fields that have therapeutic applications: diathermy (short wave, microwave, and ultrasound), electrosurgery (thermal damage processes), stimulation of excitable tissue, and electrical safety. Only one of the following may be counted: Biomedical Engineering 381J (Topic 5), Electrical and Computer Engineering 385J (Topic 26), Electrical Engineering 385J (Topic 26).

**Topic 6: Noninvasive Optical Tomography.** Same as Electrical and Computer Engineering 385J (Topic 28). Basic principles of optical tomographic imaging of biological materials for diagnostic or therapeutic applications. Optical-based tomographic imaging techniques including photothermal, photoacoustic, and coherent methodologies. Only one of the following may be counted: Biomedical Engineering 381J (Topic 6), Electrical and Computer Engineering 385J (Topic 28), Electrical Engineering 385J (Topic 28).

**Topic 7: Digital Image and Video Processing.** Digital image acquisition, processing, and analysis; algebraic and geometric image transformations; two-dimensional Fourier analysis; image filtering and coding. Additional prerequisite: Credit or registration for Biomedical Engineering 335 or Electrical Engineering 351K.

**Topic 8: Functional Imaging Laboratory.** Explores in vivo functional imaging, including aspects of imaging hardware and instrumentation, contrast agents, image processing, management of large imaging data sets, and applications of physiological modeling. Three lecture hours a week for one semester. Additional hours to be arranged. Biomedical Engineering 381J (Topic: Functional Imaging Laboratory) and 381J (Topic 8) may not both be counted. Additional prerequisite: Graduate standing in engineering.

**Topic 9: Fundamentals of Biomedical Optical Imaging.** Fundamentals of the interaction of light with tissue for the purpose of imaging and treatment of disease. Focuses on quantitative modeling of tissue optical properties, light propagation in the tissue, heat transfer of laser irradiated tissue, and thermal damage models. Includes discussion of applications in laser surgery, pulse oximetry, and disease diagnosis using spectroscopy. Biomedical Engineering 381J (Topic: Fundamentals of Biomedical Optical Imaging) and 381J (Topic 9) may not both be counted.

**Topic 10: Optics and Lasers.** Fundamentals of geometric and physical optics, interaction of light with matter, spectroscopy, and laser and electro-optics applications. Biomedical Engineering 381J (Topic: Optics and Lasers) and 381J (Topic 10) may not both be counted.

**Topic 11: Medical Imaging.** Biomedical Engineering 381J (Topic: Medical Imaging) and 381J (Topic 11) may not both be counted.

**Topic 12: Optical Design.** The principles of optical design for imaging and laser delivery systems are given. Students develop and test designs using a commercial optical design software package. Biomedical Engineering 381J (Topic: Optical Design) and 381J (Topic 12) may not both be counted.

**Topic 13: Fluorescence Micro- and Spectroscopy.** Fundamentals of fluorescence microscopy, spectroscopy, and techniques; single-molecule detection; advanced microscopy, including multi-photon microscopy, super-resolution imaging, and molecular tracking. Other subjects include metal-enhanced fluorescence, optogenetics, nanomedicine and microfluidics. Biomedical Engineering 381J (Topic: Fluorescence Micro-/Spectroscopy) and 381J (Topic 13) may not both be counted. Additional prerequisite: Understanding of biochemistry and biology; lab experience using microscopic technology and tools.

### **BME 681M. Normal Body Structure and Function.**

Restricted to students in the Master of Science in Engineering and Doctor of Medicine dual-degree program. Exploration of the structure and function of the human body at all levels of organization, from molecular and cellular to the integrated function of multiple organ systems attempting to maintain homeostasis. Emphasis on wellness and normal structure/function, in addition to the mechanistic disruptions that cause illness as well as the scientific rationale for methods to diagnose and treat selected diseases. Six lecture hours a week for one semester.

### **BME 382J. Topics in Cellular and Biomolecular Engineering.**

Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in engineering and consent of instructor.

**Topic 1: Cell and Tissue Engineering.** Use of case studies to explore pathologies of tissue, current clinical treatment, and the role of engineers in developing new technologies to diagnose and treat these pathologies. Emphasis on the use of quantitative cellular and molecular techniques. Applications of synthetic and natural biomaterials. Additional prerequisite: Quantitative physiology or pathophysiology course.

**Topic 2: Introduction to Biochemical Engineering.** Microorganisms in chemical and biochemical synthesis; genetic manipulation of cells by classical and recombinant DNA techniques; enzyme technology; design of bioreactors and microbial fermentations; and separations of biological products.

**Topic 3: Molecular Sensors and Nanodevices for Biomedical Engineering Applications.** Introduction to a variety of methods used to detect biological molecules with optical and electrical transduction mechanisms. Covers the classical approaches to biosensors for the detection of specific molecules in biological systems.

**Topic 4: Advanced Engineering Biomaterials.** Overview of biomaterials, including prosthetics, ceramics, metal implants, and polymers, with specific emphasis on properties and applications. The immunology of material-tissue interactions and the issues of biocompatibility.

**Topic 5: Structured Surfaces, Fabrication, Characterization, and Application.** Introduction to fabrication and characterization techniques used to create and analyze microstructured and nanostructured surfaces for biomedical and biotechnology applications. Focuses on the use of self-assembly processes for the fabrication of biological functionality in surface structures.

**Topic 6: Biopolymers and Drug/Gene Delivery.** Biomedical polymers and their applications in drug delivery and gene therapy. Emphasis on parenteral, mucosal, and topical delivery of biomolecules, and the role of polymers in genetic therapy and DNA vaccination.

**Topic 7: Cellular and Molecular Biomechanics.** Introduction to the concepts needed to understand and work in the emerging field of cellular and molecular biomechanics. Examination of dynamic interplay between chemical, thermal, and physical forces in determining the mechanics of cells/tissues and their molecular components. Three lectures hours a week for one semester, with additional hours to be arranged. Biomedical Engineering 382J (Topic: Cellular and Molecular Biomechanics) and 382J (Topic 7) may not both be counted. Additional prerequisite: Graduate standing; and coursework in calculus, physics, solid mechanics, and basic chemical/biological principles.

**Topic 8: Molecular Biophysics: Measurements and Methods.** In-depth study and development of intuition for thermodynamics and mechanics and application of understanding to molecular-scale problems in cell biology and biomedical engineering. Focus on increasing students' familiarity with modern methods of biophysical measurement, their strengths and limitations, and how they are being applied to address current research problems. Biomedical Engineering 382J (Topic: Molecular Biophysics: Measurements and Methods) and 382J (Topic 8) may not both be counted. Additional prerequisite: Undergraduate biology, calculus, chemistry, and physics is recommended.

**Topic 9: Biomimetic Design and Engineering.** Introduction to biomimetic reverse engineering, including the weaknesses of animal models to predict human physiology, microphysiological systems, the potential of human organs on chips to accelerate drug development processes, pharmaceutical preclinical testing requirements, human microbiome, disease models to study pathophysiology, and related subjects. Biomedical Engineering 382J (Topic: Biomimetic Design and Engineering) and 382J (Topic 9) may not both be counted.

**Topic 10: Immune Engineering.** Introduction to the concept of immune engineering. Discussion of vaccine design, cancer immunotherapy, genomics, infection, auto-immune diseases and emerging tools and methodologies. Biomedical Engineering 382J (Topic: Immune Engineering) and 382J (Topic 10) may not both be counted. Additional prerequisite: Understanding of biology.

**Topic 11: Polymer and Bioconjugate Chemistry.** Examine principles of polymeric biomaterials and bioconjugate chemistry with an emphasis on synthetic strategies to achieve specific properties. Includes characterization methods of polymers and bioconjugates as a function of chemical composition, as well as tissue engineering and drug delivery applications as case studies of the biomaterial design process. Three lecture hours a week for one semester. Biomedical Engineering 382J (Topic: Polymer/Bioconjugate Chem) and 382J (Topic 11) may not both be counted.

**Topic 12: Biological Responses to Medical Devices.** Examine key challenges in the development and assessment of biomaterials used in medical devices, including common biological responses elicited by biomaterials and the impact of these responses on material performance. Includes material surface properties, modification, and characterization; protein/cell interactions with materials; biocompatibility, inflammation and wound healing, cell-mediated biodegradation of materials; thrombosis, infection and calcification of medical devices. Biomedical Engineering 382J (Topic: Biol Responses to Medical Dev) and 382J (Topic 12) may not both be counted.

### **BME 383J. Topics in Computational Biomedical Engineering and Bioinformatics.**

Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in engineering and consent of instructor; additional prerequisites may vary with the topic.

**Topic 1: Network Thermodynamics in Biophysics.** Modeling and simulation methods for nonlinear biological processes, including coupling across multienergy domains; practical implementation by bond graph techniques. Additional prerequisite: Mechanical Engineering 344 or consent of instructor.

**Topic 2: Musculoskeletal Biomechanics.** Synthesis of properties of the musculotendon and skeletal systems to construct detailed computer models that quantify human performance and muscular coordination. Additional prerequisite: Mathematics 341 and Kinesiology 395 (Topic 36: Biomechanics of Human Movement).

**Topic 3: Introduction to Computational Oncology.** Computational techniques commonly used in modeling various aspects of cancer at multiple spatial and temporal scales. Exploration of how computational modeling offers unique and complementary information to traditional methods of cancer research. Emphasis on the integration of theory and experiment while identifying the current barriers preventing computational modeling from having a broader impact on both cancer biology and clinical oncology. Only one of the following may be counted: Biomedical Engineering 383J (Topic: Introduction to Computational Oncology), Biomedical Engineering 383J (Topic 3), Computational Science, Engineering, and Mathematics 397 (Topic: Introduction to Computational Oncology).

**Topic 4: Biomechanics of Human Movement.** Same as Kinesiology 395 (Topic 36: Biomechanics of Human Movement). Additional prerequisite: Kinesiology 326K, two semesters of calculus, one semester of college physics (mechanics), and consent of instructor.

**Topic 5: Introduction to Nonlinear Dynamics in Biological Systems.** Same as Kinesiology 395 (Topic 63: Introduction to Nonlinear Dynamics in Biological Systems). Basic concepts of nonlinear mathematics and their application to biological systems. Additional prerequisite: Two semesters of college-level calculus and consent of instructor.

**Topic 7: Data Mining.** Analyzing large data sets for interesting and useful information; online analytical processing, finding association rules, clustering, classification, and function approximation; scalability of algorithms and real-life applications.

**Topic 8: Systems Biology.** The biological function of genetic and biochemical networks from a quantitative perspective. Students use mathematical tools to model network modules, such as biological switches, oscillators, and amplifiers. Discusses recent papers on a variety of biological problems that can be addressed with a systems biology approach. Additional prerequisite: Biology 311C and Mathematics 427K; an introductory course in biochemistry, and knowledge of MATLAB, are recommended.

**Topic 9: Computational Methods for Biomedical Engineers.** Study of and hands-on experiences with computational methods commonly employed in biomedical engineering research. Three lecture hours

a week for one semester. Biomedical Engineering 383J (Topic: Computational Methods for Biomedical Engineers I) and 383J (Topic 9) may not both be counted. Additional prerequisite: Graduate standing in engineering.

**Topic 10: Computational Biomolecular Engineering.** Provides an introduction to the principles and applications of biomolecular modeling and simulation, including the theoretical background of molecular thermodynamics and molecular mechanics, major simulation/computational techniques and commonly used software tools. Biomedical Engineering 383J (Topic: Computational Biomolecular Engineering) and 383J (Topic 10) may not both be counted. Additional prerequisite: Undergraduate biochemistry coursework, and thermodynamics or physical chemistry coursework; or consent of instructor.

**Topic 11: Dynamical Modeling of Biological Signaling and Regulatory Systems.** Introduction to various approaches currently used for modeling and simulating cellular signal transduction, metabolic, and gene regulatory networks. Biomedical Engineering 383J (Topic: Dynamical Modeling of Biological Signaling and Regulatory Systems) and 383J (Topic 11) may not both be counted. Additional prerequisite: Understanding of biochemistry and biology; familiarity with a programming environment.

**Topic 12: Computational Modeling in Bioengineering and Medicine.** Comprehensive introduction to methods used in simulation of biological systems and processes. Emphasis on selected applications from single channels, cells, and tissues up to whole organs. Only one of the following may be counted: Biomedical Engineering 383J (Topic 12), 385J (Topic: Comptl Mdlng Bioengr and Med), Computational Science, Engineering, and Mathematics 397 (Topic: Comptl Mdlng in Bioengr & Med).

**Topic 13: Introduction to Mathematical and Physical Biology.** Introduction to common mathematical and physical techniques used in modeling various aspects of biology at multiple spatial and temporal scales. Explore the integration of theory and experiment while identifying the current barriers preventing computational modeling from having a broader impact in biology. Only one of the following may be counted: Biomedical Engineering 383J (Topic: Intro Mathematical & Phys Bio), 383J (Topic 13), Computational Science, Engineering, and Mathematics 397 (Topic: Intro Mathematical & Phys Biol).

### **BME 384J. Topics in Instrumentation.**

Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in engineering and consent of instructor; additional prerequisites vary with the topic.

**Topic 1: Biomedical Instrumentation I.** Same as Electrical and Computer Engineering 385J (Topic 31). Application of electrical engineering techniques to analysis and instrumentation in biological sciences: pressure, flow, temperature measurement; bioelectrical signals; pacemakers; ultrasonics; electrical safety; electrotherapeutics. Only one of the following may be counted: Biomedical Engineering 384J (Topic 1), Electrical and Computer Engineering 385J (Topic 31), Electrical Engineering 385J (Topic 31).

**Topic 2: Biomedical Instrumentation II: Real-Time Computer-Based Systems.** Same as Electrical and Computer Engineering 385J (Topic 17). Design, testing, patient safety, electrical noise, biomedical measurement transducers, therapeutics, instrumentation electronics, microcomputer interfaces, and embedded systems. Participate in an individual laboratory. Only one of the following may be counted: Biomedical Engineering 384J (Topic 2), Electrical and Computer Engineering 385J (Topic 17), Electrical Engineering 385J (Topic 17).

**Topic 3: Biosignal Analysis.** Same as Electrical and Computer Engineering 385J (Topic 15). Theory and classification of biological

signals such as EEG, EKG, and EMG. Data acquisition and analysis procedures for biological signals, including computer applications. Only one of the following may be counted: Biomedical Engineering 384J (Topic 3), Electrical and Computer Engineering 385J (Topic 15), Electrical Engineering 385J (Topic 15).

**Topic 4: Bioelectric Phenomena.** Same as Electrical and Computer Engineering 385J (Topic 3). Examines the physiological bases of bioelectricity and the techniques required to record bioelectric phenomena both intracellularly and extracellularly; the representation of bioelectric activity by equivalent dipoles and the volume conductor fields produced. Only one of the following may be counted: Biomedical Engineering 384J (Topic 4), Electrical and Computer Engineering 385J (Topic 3), Electrical Engineering 385J (Topic 3).

**Topic 5: Projects in Biomedical Engineering.** Same as Electrical and Computer Engineering 385J (Topic 32). An in-depth examination of selected topics, such as optical and thermal properties of laser interaction with tissue; measurement of perfusion in the microvascular system; diagnostic imaging; interaction of living systems with electromagnetic fields; robotic surgical tools; ophthalmic instrumentation; noninvasive cardiovascular measurements. Only one of the following may be counted: Biomedical Engineering 384J (Topic 5), Electrical and Computer Engineering 385J (Topic 32), Electrical Engineering 385J (Topic 32). Additional prerequisite: Biomedical Engineering 384J (Topic 1) or Electrical and Computer Engineering 385J (Topic 31) (or Electrical Engineering 385J (Topic 31)).

**Topic 6: Neurophysiology/Prosthesis Design.** Same as Electrical and Computer Engineering 385J (Topic 33). The structure and function of the human brain. Discussion of selected neurological diseases in conjunction with normal neurophysiology. Study of neuroprosthesis treatments and design philosophy, functional neural stimulation, and functional muscular stimulation. Only one of the following may be counted: Biomedical Engineering 385J (Topic 6), Electrical and Computer Engineering 385J (Topic 33), Electrical Engineering 385J (Topic 33).

**Topic 7: Introduction to Neural Engineering.** Survey of important concepts, applications, and challenges in neural engineering. Subjects include basic neurophysiology and electrophysiological signals, major neural interface modalities and various optical microscopy techniques, and design aspects of neural engineering devices. Emphasis on recent trends and frontiers in neural engineering. Only one of the following may be counted: Biomedical Engineering 381J (Topic: Electrophysiology: Methods and Frontiers), Biomedical Engineering 381J (Topic: Introduction to Neural Engineering), Biomedical Engineering 384J (Topic 7).

**Topic 8: Rehabilitation Engineering.** Same as Mechanical Engineering 385J (Topic 24). Explores use of robotic devices in physical therapy for neuromuscular injury. Clinicians lecture each week on a specific malady, followed by critical review of the literature of that malady from the perspective of rehabilitation engineering. Shadows therapists and develops a prototype of a device for therapy, assistance or diagnosis of patients, or conducts an experiment to test a hypothesis in the field using a device. Three lecture hours a week for one semester. Only one of the following may be counted: Biomedical Engineering 381J (Topic: Rehabilitation Engineering), 384J (Topic 8), Mechanical Engineering 385J (Topic 24), 397 (Topic: Rehabilitation Engineering).

### **BME 384T. Topics in Biomechanics.**

Restricted to students in the Cockrell School of Engineering. Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor; additional prerequisites vary with the topic.

**Topic 1: Bioheat Transfer.** Explore the application of the principles of heat transfer to the solution of a series of advanced, open-ended problems in medicine and biology. Identify and pursue solution strategies for a range of cutting-edge problems in bioheat transfer. Biomedical Engineering 384T (Topic 1) and 385J (Topic 12) may not both be counted. Additional prerequisite: Prior course in heat transfer or transport phenomena.

**Topic 2: Cellular, Tissue, and Scaffold Biomechanics.** Explore an analysis of biosolid mechanics via the mechanical behavior of scaffolds and living tissues and cells. Examine biomechanical application areas, including cell mechanics, engineered materials, hard and soft tissues, and organs. Only one of the following may be counted: Biomedical Engineering 384T (Topic 2), 385J (Topic: Tissue/Scaffold Biomechanics), 385J (Topic 7).

**Topic 3: Soft Tissue Biomechanics.** Explore the fundamentals and critical applications of soft tissue mechanics. Examine continuum mechanics (kinematics, stress, balance of linear momentum, hyperelasticity), experimental and nonlinear finite element analyses of soft tissue mechanics, and relevant imaging modalities and related facilities available on campus. Only one of the following may be counted: Biomedical Engineering 384T (Topic 3), 385J (Topic: Soft Tissue Biomechanics), Engineering Mechanics 397 (Topic: Soft Tissue Biomechanics), Mechanical Engineering 385J (Topic: Soft Tissue Biomechanics).

**Topic 4: Thin Film Mechanics.** Explore a comprehensive introduction to, and important applications of, thin film structures and devices. Discuss stress, fracture, delamination, instability, and other mechanics-related subjects involving thin films. Examine technological applications including integrated circuits, micro- and nano-electromechanical systems, flexible and stretchable electronics, bioelectronics, and surface coatings. Only one of the following may be counted: Biomedical Engineering 384T (Topic 4), 385J (Topic: Thin Film Mechanics), Engineering Mechanics 397 (Topic: Thin Film Mechanics).

**Topic 5: Tissue Microenvironments.** Explore varying native and bio-fabricated tissue microenvironments and hands-on opportunities for fabrication and bioprinting of tissues on a chip. Examine characterization of mechanical, thermal, transport, and cellular tissue response to microenvironments; imaging and computational approaches that enable prediction of cell and tissue behavior within physiological and pathological native or bio-fabricated tissues; and clinical perspectives which drive design of physiologically representative tissues on a chip and their use for diagnostic screening and therapeutic planning. Only one of the following may be counted: Biomedical Engineering 384T (Topic 5), 385J (Topic: Tiss Microenv: Fab/Tran/Mech), Mechanical Engineering 397 (Topic: Tiss Microenv: Fab/Tran/Mech), 397M (Topic: Tiss Microenv: Fab/Tran/Mech).

### **BME 385J. Topics in Biomedical Engineering.**

Three lecture hours a week for one semester, or as required by the topic. Biomedical Engineering 385J and 387J may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in engineering and consent of instructor.

**Topic 6: Analysis of Biological Systems.** Biomedical Engineering 383J (Topic: Analysis of Biological Systems I) and 385J (Topic 6) may not both be counted.

**Topic 39: Medical Decision Making.** Selected subjects from cognitive psychology and human-machine interaction for engineering students to design more effective systems for supporting medical decision making. Biomedical Engineering 385J (Topic: Medical Decision Making) and 385J (Topic 39) may not both be counted.

**Topic 40: Cancer Bioengineering.** Analysis of the biology and pathology of cancer, including the fundamental nature of cancer, cellular oncogenes, growth factor signaling, tumor suppressor genes,

apoptosis, multi-step tumorigenesis, angiogenesis, metastasis, and tumor immunology and immunotherapy. Also explores ways in which the tools of engineering are transforming the future of cancer research. Biomedical Engineering 385J (Topic: Cancer Bioengineering) and 385J (Topic 40) may not both be counted.

**Topic 41: Medical Device Design and Manufacturing.** Apply engineering principles in the conception, design and prototyping of medical devices. Develop team projects with emphasis on clinical and market needs analysis, creative and useful concept generation, engineering requirements and specifications, and written and oral reporting of intermediate and final prototype outcomes. Three lecture hours a week for one semester. Biomedical Engineering 385J (Topic: Medical Device Design and Manu) and 385J (Topic 41) may not both be counted.

**Topic 42: Inquiry Based Instructional Design.** Examine principles of inquiry-based learning methods and their applications to an engineering pedagogical context. Use multiple, open-ended engineering problems as case studies and develop an independent course integrating inquiry-based learning content. Only one of the following may be counted: Biomedical Engineering 385J (Topic: Dsgn IBL: Bioheat Transfer), 385J (Topic: Inquiry Based Instruc Dsgn), 385J (Topic 42).

### **BME 685M. Mechanisms of Disease.**

Restricted to students in the Master of Science in Engineering and Doctor of Medicine dual-degree program. Overview of the disease-specific concepts required to participate in patient care by integrating clinical medicine, microbiology, pathology, and pharmacology into organ system modules, and the pathophysiology of diseases, the differential diagnosis of cardinal symptoms, and treatment modalities. Includes other concepts such as radiology and diagnostics. Six lecture hours a week for one semester.

### **BME 396. Research Internship.**

Students participate in research in an industry, clinic, or academic laboratory setting selected with the approval of the faculty adviser. At least twenty hours of fieldwork a week for one semester. May be counted only once toward either the master's or the doctoral degree. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **BME 197, 297, 397, 597, 697. Research Problems.**

Problems selected by the student with approval of the faculty adviser. For each semester hour of credit earned, three laboratory hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in biomedical engineering.

### **BME 197D. Deep Reading in Science and Engineering.**

Analyze primary research articles with the goal of improving understanding of experimental design/methods, writing scientific articles and critiquing current research. The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **BME 197E. Professional Responsibilities in Imaging.**

One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **BME 197M. Mentoring Undergraduates in Research.**

Designed to support and develop students' skills in mentoring undergraduates engaged in science, technology, engineering and mathematics (STEM) research. The equivalent of one lecture hour a week for one semester. Biomedical Engineering 180J (Topic: Research

Mentoring) and 197M may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **BME 197N. Integrated Biomedical Engineering Seminar.**

Designed to support students' professional development as well as their broad understanding of the biomedical engineering research enterprise. One lecture hour a week for one semester. Prerequisite: Graduate standing.

### **BME 197P, 297P, 397P. Graduate Professional Development Seminar.**

Explores professional development goals of biomedical engineers. Subjects include an individual development plan, careers in academia, entrepreneurship, careers in industry, and more. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the credit/no credit basis only.

### **BME 197S. Graduate Seminar in Biomedical Engineering.**

The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **BME 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in biomedical engineering and consent of the graduate adviser; for 698B, Biomedical Engineering 698A.

### **BME 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in biomedical engineering and consent of the graduate adviser.

### **BME 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Bridging Disciplines Courses**

## **Bridging Disciplines: BDP**

### **Lower-Division Courses**

#### **BDP 101, 201, 301. Forum Seminar Series.**

Restricted to freshmen and sophomores, and to students in the Bridging Disciplines Programs. For 101, two lecture hours a week for eight weeks; for 201, two lecture hours a week for one semester; for 301, three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Varies with the topic.

**Topic 1: Children and Society.** Discuss various contemporary issues in children and society, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Children and Society) and 101 (Topic 1) may not both be counted. Offered on the letter-grade basis only.

**Topic 2: Environmental Change and Sustainability.** Discuss various contemporary issues in environmental change and sustainability, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Envir Change & Sustainability) and 101 (Topic 2) may not both be counted. Offered on the letter-grade basis only.

**Topic 3: Exploring Digital Arts and Media.** Discuss various contemporary issues in digital arts and media, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Exploring Digital Art & Media) and 101 (Topic 3) may not both be counted. Offered on the letter-grade basis only.

**Topic 4: Health Inequality in Childhood and Adolescence.** Discuss various contemporary issues in health inequality in childhood and adolescence, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Hlth Inequality Chldhd/Adol) and 101 (Topic 4) may not both be counted. Offered on the letter-grade basis only.

**Topic 5: Human Rights and Social Justice.** Discuss various contemporary issues in human rights and social justice, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Human Rights & Social Justice) and 101 (Topic 5) may not both be counted. Offered on the letter-grade basis only.

**Topic 6: Introduction to Conflict Resolution and Peace Studies.** Discuss various contemporary issues in conflict resolution and peace studies, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Intro Confl Res/Peace Studies) and 101 (Topic 6) may not both be counted. Offered on the letter-grade basis only.

**Topic 7: Introduction to the Non-Profit World.** Discuss various contemporary issues in non-profits and social entrepreneurship, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Intro to the Nonprofit World) and 101 (Topic 7) may not both be counted. Offered on the letter-grade basis only.

**Topic 8: Introduction to Museum Studies.** Discuss various contemporary issues in museum studies, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Intro to Museum Studies) and 101 (Topic 8) may not both be counted. Offered on the letter-grade basis only.

**Topic 9: Introduction to Public Policy.** Discuss various contemporary issues in public policy, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Intro to Public Policy) and 101 (Topic 9) may not both be counted. Offered on the letter-grade basis only.

**Topic 10: Introduction to Smart Cities.** Discuss various contemporary issues relevant to smart cities, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Intro to Smart Cities) and 101 (Topic 10) may not both be counted. Offered on the letter-grade basis only.

**Topic 11: Patients, Practitioners, and Cultures of Care.** Discuss various contemporary issues relevant to patients, practitioners, and cultures of care, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Patients/Prac/Cul of Care) and 101 (Topic 11) may not both be counted. Offered on the letter-grade basis only.

**Topic 12: Professional Ethics in Law, Business, and Medicine.** Discuss various contemporary issues in professional ethics, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Prof Ethics: Law/Busn/Med) and 101 (Topic 12) may not both be counted. Offered on the letter-grade basis only.

**Topic 13: Social Inequality, Health, and Policy.** Discuss various contemporary issues in social inequality, health, and policy, with an emphasis on interdisciplinary perspectives and critical discourse. Bridging Disciplines 101 (Topic: Social Inequal, Hlth, & Policy) and 101 (Topic 13) may not both be counted. Offered on the letter-grade basis only.

### **BDP 306. Fundamentals of Ethical Leadership.**

Restricted to freshmen and sophomores, and to students in the Bridging Disciplines Programs. Discussion of various contemporary issues related

to ethical leadership, with an emphasis on interdisciplinary perspectives and critical discourse. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **BDP 306C. Principles of Business.**

Restricted to nonbusiness students. Interdisciplinary examination of how businesses function in the Western world. Discusses the development of the corporation in the United States, ethical issues, and the primary areas of business. Three lecture hours a week for one semester. Bridging Disciplines 301 (Topic: Principles of Business) and 306C may not both be counted. Offered on the letter-grade basis only.

### **BDP 111, 211, 311. Connecting Internship Experience.**

Restricted to students in the Bridging Disciplines Programs. Supervised internship experience related to the interdisciplinary themes of a Bridging Disciplines Program. Internships may be paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. For 111, three hours of fieldwork a week for one semester; for 211, six hours of fieldwork a week for one semester; for 311, ten hours of fieldwork a week for one semester. With consent of the Bridging Disciplines research coordinator, may be repeated once for credit. Prerequisite: Consent of the Bridging Disciplines research coordinator.

### **BDP 119, 219, 319. Specialized Forum Seminar Series.**

For 119, two lecture hours a week for eight weeks or one lecture hour a week for one semester; for 219, two lecture hours a week for one semester; for 319, three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Human Rights: Theories and Practice.** Discuss various contemporary issues in human rights, with an emphasis on multidisciplinary perspectives and critical discourse. Bridging Disciplines 319 (Topic: Human Rights: Theories/Prac) and 319 (Topic 1) may not both be counted.

**Topic 2: Museum Studies.** Discuss various contemporary issues in museum studies, with an emphasis on multidisciplinary perspectives and critical discourse. Bridging Disciplines 319 (Topic: Museum Studies) and 319 (Topic 2) may not both be counted.

**Topic 3: Smart Cities.** Discuss various contemporary issues relevant to smart cities, with an emphasis on multidisciplinary perspectives and critical discourse. Bridging Disciplines 319 (Topic: Smart Cities) and 319 (Topic 3) may not both be counted.

### **BDP 319D. Introduction to Digital Media Production.**

Introduction to digital media production, including the fundamentals of software programs used for digital design, web production, animation, and other functions. Three lecture hours a week for one semester. Bridging Disciplines 319 (Topic: Introduction to Digital Media Production) and 319D may not both be counted.

## **Upper-Division Courses**

### **BDP 120K, 220K, 320K. Connecting Research Experience.**

Restricted to students in the Bridging Disciplines Programs. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit.

### **BDP 320L. Connecting Research Experience.**

Restricted to students in the Bridging Disciplines Programs. Supervised research with a faculty member, related to the interdisciplinary themes of a Bridging Disciplines Program. Research may consist of an individual project and must meet the criteria for the independent inquiry flag. The equivalent of three lecture hours a week for one semester. May be repeated for credit.

### **BDP 320M. Connecting Research Experience: Service Learning.**

Restricted to students in the Bridging Disciplines Programs. Supervised research with a faculty member, related to the interdisciplinary themes of a Bridging Disciplines Program and including an academic service-learning component. Research may consist of an individual project involving service to the community or assisting a faculty research project with a community service component. Individual instruction. May be repeated for credit. Prerequisite: Upper-division standing and consent of the Bridging Disciplines Programs.

### **BDP 321M. Connecting Internship Experience: Service Learning.**

Restricted to students in the Bridging Disciplines Programs. Supervised internship experience related to the interdisciplinary themes of a Bridging Disciplines Program and including an academic service-learning component. Internships must be unpaid and may include work with nonprofit organizations or other organized community service entities. Ten hours of fieldwork a week for one semester. With consent of the Bridging Disciplines Research Programs, may be repeated once for credit. Prerequisite: Upper-division standing and consent of the Bridging Disciplines research coordinator.

### **BDP 322K. Team-Based Research Experience.**

Collaborative or team-based research or creative project, under the supervision of a faculty member. Topics are related to the interdisciplinary themes of the Bridging Disciplines Programs. Individual instruction. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of the Bridging Disciplines Programs; additional prerequisites may vary with the topic.

### **BDP 125K, 225K, 325K. Connecting Internship Experience.**

Restricted to students in the Bridging Disciplines Programs. Supervised internship experience related to the interdisciplinary themes of a Bridging Disciplines Program. For 125K, three hours of fieldwork a week for one semester; for 225K, six hours of fieldwork a week for one semester; for 325K, ten hours of fieldwork a week for one semester. May be repeated for credit. Prerequisite: Consent of the Bridging Disciplines Programs.

### **BDP 126, 226, 326. Advanced Forum Seminar Series.**

Discussion of contemporary issues related to the topics of a Bridging Disciplines Program, with an emphasis on interdisciplinary perspectives and critical discourse. For 126, two lecture hours a week for eight weeks or one lecture hour a week for one semester; for 226, two lecture hours a week for one semester; for 326, three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites may vary with the topic.

### **BDP 129, 229, 329. Specialized Advanced Forum Seminar Series.**

Discussion of contemporary issues related to the topics of a Bridging Disciplines Program, with an emphasis on interdisciplinary perspectives, research, and critical discourse. For 129, two lecture hours a week for eight weeks or one lecture hour a week for one semester; for 229, two lecture hours a week for one semester; for 329, three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

**Topic 1: Race and Medicine in American Life.** Discuss contemporary issues related to race and medicine in American life, with an emphasis on interdisciplinary perspectives, research, and critical discourse.

Bridging Disciplines 329 (Topic: Race/Medicine in Amer Life) and 329 (Topic 1) may not both be counted.

## Graduate Courses

## Professional Courses

# Business Administration Courses

## Business Administration: B A

### Lower-Division Courses

#### **B A 001F. First-Year Interest Group Seminar.**

Restricted to students in the First-Year Interest Group Program. Basic issues in various McCombs School of Business disciplines. One lecture hour a week for one semester.

#### **B A 101H. Professional Development and Career Planning: Honors.**

Restricted to students admitted to the McCombs School of Business Honors Program. Professional development issues including self-assessment, identification of personal life goals, identification of business majors and exploration of potential career fields for each major, and analysis and discussion of the academic planning process and how it relates to professional development and career planning. One-and-one-half lecture hours a week for one semester. Only one of the following may be counted: Business Administration 101H, 101S, 101T. Offered on the letter-grade basis only.

#### **B A 101S. Professional Development and Career Planning.**

Restricted to freshmen students in the McCombs School of Business. Discussion of issues surrounding career planning, implementation, and evaluation in order to establish career goals. Strategies for executing a successful job search, including interviewing techniques, resumes, networking, and job search ethics. Focus on career management as a lifelong process. One-and-one-half lecture hours a week for one semester. Only one of the following may be counted: Business Administration 101H, 101S, 101T. Offered on the letter-grade basis only.

#### **B A 101T. Professional Development and Career Planning.**

Restricted to transfer students in the McCombs School of Business. Discussion of issues surrounding career planning, implementation, and evaluation. One-and-one-half lecture hours a week for one semester. Only one of the following may be counted: Business Administration 101H, 101S, 101T. Offered on the letter-grade basis only.

#### **B A 105, 205, 305. Topics in Business Administration Leadership.**

Restricted to students in the McCombs School of Business. Explores current theory and research related to peer mentoring and leadership with higher education and business. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### **B A 018H. Business Honors Program Seminar.**

Restricted to students admitted to the McCombs School of Business Honors Program. Basic issues in various interdisciplinary and business fields of study. One lecture hour a week for one semester. Fulfills the criteria for a 360 Connection. May not be counted toward the Bachelor of Business Administration degree. May be repeated for credit.

#### **B A 119, 219, 319, 419, 519, 619. International Learning Seminar.**

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international

locations. For each semester hour of credit earned, one lecture hour a week for one semester. Business Administration 119, 219, 319, 419, 519, 619 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

#### **B A 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Business Administration.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the Bachelor of Business Administration's study abroad director in the McCombs School of Business. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### Upper-Division Courses

#### **B A 320F. Foundations of Entrepreneurship.**

Restricted to non-McCombs School of Business majors. Introduction to the mechanics and strategies for starting a business. Three lecture hours a week for one semester. Prerequisite: Forty-five semester hours of college coursework.

#### **B A 321L. Contemporary Leadership Issues.**

Focuses on leadership topics such as ethics, diversity, and sustainability. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **B A 324. Business Communication: Oral and Written.**

Restricted to students in the McCombs School of Business. Theory and practice of effective communication, using models from business situations. Students practice what they learn with a variety of in-class activities, written assignments, and oral presentations. Teamwork and use of interpersonal skills are included. Three lecture hours a week for one semester. Only one of the following may be counted: Communication 324M, Communication 324C, Communication 324H, Business Administration 324, and Business Administration 324H. Offered on the letter-grade basis only. Prerequisite: English 303C or 603A, or Rhetoric and Writing 306 or 306Q or 309K, or Tutorial Course 303C or 603A; and credit or registration for Business Administration 101H or 101S or 101T.

#### **B A 324H. Business Communication: Oral and Written: Honors.**

Restricted to students admitted to the McCombs School of Business Honors Program. Theory and practice of effective communication, using models from business situations. Students practice what they learn with a variety of in-class activities, written assignments, and oral presentations. Teamwork and use of interpersonal skills are included. Three lecture hours a week for one semester. Only one of the following may be counted: Communication 324M, 324C, 324H, Business Administration 324, 324H. Offered on the letter-grade basis only. Prerequisite: English 303C or 603A, Rhetoric and Writing 306, 306Q, 309K, or Tutorial Course 303C or 603A; and Business Administration 101H or 101S, or credit or registration for Business Administration 101T.

#### **B A 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in Business Administration.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the Bachelor of Business Administration's study abroad director in the McCombs School of Business. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer

credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**B A 149, 249, 349, 449, 549, 649. International Learning Seminar.**

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Business Administration 149, 249, 349, 449, 549, 649 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

**B A 151H. Honors Lyceum in Business Administration.**

Restricted to students admitted to the McCombs School of Business Honors Program. Presentations by professionals from various fields of business. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Business Administration 101H or 101S, or credit or registration for Business Administration 101T.

**B A 352F. Internship in Foundations of Business Administration.**

Restricted to non-McCombs School of Business majors. Focuses on students' career goals through academic discussion and evaluations, while students are working in professional internships with public and private enterprises. Internship to be arranged by the student and approved by the director of the Business Foundations Program. Internship and discussion hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Completion of at least forty-five semester hours of coursework, Accounting 310F with a grade of at least C, and consent of the director of the Business Foundations Program.

**B A 153, 253, 353, 653. Internship in Business Administration.**

Restricted to students in a business major. Provides a format for reflection during a professional internship, resulting in improved ability to both articulate preferences and skills, and to match them with appropriate career-related choices. Internship and discussion hours to be arranged. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 153, 253, 353, 653, 353H, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not be counted toward the student's major requirement. Offered on the pass/fail basis only. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the BBA Internship Director.

**B A 366F. Foundations of Business Administration Practicum.**

Restricted to non-McCombs School of Business majors. Students apply skills related to the Business Foundations certificate program curriculum and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing and completion of at least forty-five semester hours of coursework.

**B A 176C, 276C, 376C. Advanced Topics in Finance and Accounting.**

Restricted to students admitted to courses offered through Texas Executive Education. Rigorous introduction into the topics and processes of accounting and finance in business. Focus on how to apply analytical skills to make better business decisions. Taught by faculty from the McCombs School of Business. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May

not be counted toward the Bachelor of Business Administration degree. May be repeated for credit when the topics vary.

**B A 176D, 276D, 376D. Advanced Topics in Marketing.**

Restricted to students admitted to courses offered through Texas Executive Education. Explores marketing strategies and practices that are applicable to multiple departments across organizations. Discussion of marketing tactics and the impact of marketing on business operations. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May not be counted toward the Bachelor of Business Administration degree. May be repeated for credit when the topics vary.

**B A 176E, 276E, 376E. Advanced Topics in Leadership and Management.**

Restricted to students admitted to courses offered through Texas Executive Education. Discussion of strategies to foster highly effective communication and collaboration in order to become more successful and valuable as a leader. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May not be counted toward the Bachelor of Business Administration degree. May be repeated for credit when the topics vary.

**B A 176F, 276F, 376F. Advanced Topics in Business Analytics.**

Restricted to students admitted to courses offered through Texas Executive Education. Introduction to the leading edge of big data and data analytics. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May not be counted toward the Bachelor of Business Administration degree. May be repeated for credit when the topics vary.

**B A 176G, 276G, 376G. Advanced Topics in Supply Chain.**

Restricted to students admitted to courses offered through Texas Executive Education. Explores the tools and ideas that help shape and define the various components of value creation. Dive into the process and strategies behind acquiring, producing and delivering goods and services, whether domestically or globally. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May not be counted toward the Bachelor of Business Administration degree. May be repeated for credit when the topics vary.

**B A 176J, 276J, 376J. Advanced Topics in Energy.**

Restricted to students admitted to courses offered through Texas Executive Education. Focus on the economics, strategy, business valuation and finance specific to the energy industry. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May not be counted toward the Bachelor of Business Administration degree. May be repeated for credit when the topics vary.

**B A 176K, 276K, 376K. Advanced Topics in Strategy.**

Restricted to students admitted to courses offered through Texas Executive Education. Focus on developing the knowledge and thought processes necessary to make high-impact decisions within an organization. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May not be counted toward the Bachelor of Business Administration degree. May be repeated for credit when the topics vary.

**B A 176L, 276L, 376L. Advanced Topics in Strategic Decision Making and Risk Management.**

Restricted to students admitted to courses offered through Texas Executive Education. Explores techniques to recognize risks from stakeholders' perspectives. Discussion of how to frame strategic choices, generate alternatives, and create models that answer

executives' questions, produce compelling analyses, and ultimately gain commitment. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May not be counted toward the Bachelor of Business Administration degree. May be repeated for credit when the topics vary.

#### **B A 176N, 276N, 376N. Advanced Topics in Business.**

Restricted to students admitted to courses offered through Texas Executive Education. Explores the skill set needed to move from a functional area to a cross functional management role. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May not be counted toward the Bachelor of Business Administration degree. May be repeated for credit when the topics vary.

#### **B A 178F, 378F. Independent Research in Foundations of Business Administration.**

Restricted to non-McCombs School of Business majors. Conference course. Prerequisite: Upper-division standing, Accounting 310F with a grade of at least C, consent of instructor, and written approval before the first meeting of the course on a form provided for that purpose from the director of the Business Foundations Program.

### **Graduate Courses**

#### **B A 180C, 280C, 380C. Information Technology Management.**

Restricted to students in the MBA program. A discussion of technical architecture, including hardware/software platforms, operating systems, networking and the Internet; development strategies; and management issues for the introduction of new technology. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the McCombs School of Business.

#### **B A 380F. Accounting Information for Managerial Decision Making.**

Restricted to second-year students in the MBA program. Financial information regarding revenue, cost, and assets, with an emphasis on the interpretation of numbers to derive well-informed management decisions. Covers the role of taxes in business strategy. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **B A 180G. Executive Seminar.**

Restricted to students in the Executive MBA Program. Examine the integration of business executive and real-world problem solving, career preparation, and professional growth. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **B A 380M. Management Science.**

Introduction to the structure and use of mathematical models and methods for analyzing managerial decision problems. Development and application of modeling concepts and skills underlying the analytical techniques used to solve such problems. Introduction to a range of computers, and use of the latest in computer-based decision support systems. Three lecture hours a week for one semester. Prerequisite: Admission to the McCombs School of Business.

#### **B A 180N, 280N, 380N. Operations Management.**

An introduction to the issues and decisions involved in the production of goods and services. Focuses on designing, operating, controlling, and improving the systems that accomplish production. For 180N, one lecture hour a week for one semester; for 280N, four lecture hours a week for half a semester; for 380N, three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the McCombs School of Business.

#### **B A 180P. Project Management.**

An introduction to the techniques used in managing complex projects, with a central theme of managing risk and variability. Examine the progressive elaboration of cost and schedule estimates in the presence of significant uncertainty. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **B A 180S, 280S, 380S. Managerial Economics.**

Microeconomic and macroeconomic forces that influence an organization's decisions: interest rates, business cycles, financial systems, input demand and supply, industry factors, market structure, and externalities. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the McCombs School of Business.

#### **B A 181C. Strategic Career Planning.**

Restricted to first-year students in the MBA program. Issues surrounding career planning, including exploration and implementation. Professional development issues, including self-assessment. One and one-half lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

#### **B A 181T, 281T, 381T. Marketing Management.**

An introduction to the marketing perspective on strategy development and to the elements of marketing analysis. Includes the functional decision areas of the marketing manager, such as products and product lines, pricing policies, branding, promotion and advertising, and channels of distribution, and how organizations use these components to create, capture, and sustain value for the firm. For 181T, one lecture hour a week for one semester; for 281T, four lecture hours a week for half a semester; for 381T, three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the McCombs School of Business.

#### **B A 182T, 282T, 382T. Managerial Accounting.**

An investigation of the conceptual and operational relationship of planning and control with management and accounting information systems. Topics include data collection and analysis for short-range and long-range organizational decisions. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Accounting 329, 359, 287 (Topic 1), 287 (Topic 5), 387 (Topic 1), 387 (Topic 5) Business Administration 182T, 282T, 382T. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the McCombs School of Business.

#### **B A 284F. Financial Reporting for Executives.**

Restricted to students in the Executive MBA Program. Examine the strengths and weaknesses of the information produced in financial reports, the pressures faced by management and auditors as they prepare financial statements, the difficulties involved in evaluating decisions after outcomes are known, and the impact of accounting information on strategic decisions. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **B A 184S, 284S, 384S. Economics for Business.**

Restricted to students in the McCombs School of Business. Microeconomic and macroeconomic forces that influence an organization's decisions, such as interest rates, business cycles, financial systems, input demand and supply, industry factors, market structure, and externalities. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated

for credit when the topics vary. Offered on the letter-grade basis only.  
Prerequisite: Graduate standing.

**Topic 1: Managerial Microeconomics.** Microeconomic forces that influence an organization's decisions, including input supply and demand, industry factors, market structure, and externalities. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only.

**Topic 2: Managerial Macroeconomics.** Macroeconomic forces that influence an organization's decisions, including interest rates, business cycles, and financial systems. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Offered on the letter-grade basis only.

**Topic 3: Global Economics for Executives.** Restricted to students in the Executive MBA Program. Explore both microeconomics and macroeconomics, with a special emphasis on global macro phenomena. Offered on the letter-grade basis only.

### **B A 184T, 284T, 384T. Financial Accounting.**

An examination of the information needs of capital market participants in a dynamic and complex socioeconomic system; emphasis on interpretation, measurement, and disclosure of economic events. For 184T, one lecture hour a week for one semester; for 284T, four lecture hours a week for half a semester; for 384T, three lecture hours a week for one semester. Accounting 381 and Business Administration 184T, 284T, 384T may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the McCombs School of Business.

### **B A 285F. Financial Management Concepts and Applications for Executives.**

Restricted to students in the Executive MBA Program. Examine the core concepts underlying financial management. Explore organizational forms of business, the time value of money, debt and equity markets, agency theory, risk and return, value creation, capital budgeting, firm valuation, and the fundamentals of risk-management. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **B A 185T, 285T, 385T. Financial Management.**

An exploration of concepts and techniques employed in investment decision making, working capital management, and financing the activities of a business. For 185T, one lecture hour a week for one semester; for 285T, four lecture hours a week for half a semester; for 385T, three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the McCombs School of Business.

### **B A 286S. Statistics for Executives.**

Restricted to students in the Executive MBA Program. Explore regression as a universal model for linking data to outcomes. Discuss how to set up and run a regression model, evaluate when the model is correct, and interpret the results. Examine illustrative case studies that use regression models to forecast a firm's future sales, determine if apartments and homes are overpriced, evaluate the relative riskiness of owning shares of a stock, develop an optimal bidding strategy, estimate the value of a physical asset, and value a contingent contract offer in a negotiation. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **B A 186T, 286T, 386T. Statistics.**

A unified approach to basic concepts in collection, analysis, and interpretation of data, emphasizing capabilities of different statistical methods and business applications. Students use statistical software packages. For 186T, one lecture hour a week for one semester; for 286T,

four lecture hours a week for half a semester; for 386T, three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the McCombs School of Business.

### **B A 287T. Legal and Regulatory Environment of Business.**

Examination of relationships between public and private institutions, with emphasis on the legal constraints on managerial decision making. Two lecture hours a week for one semester. Prerequisite: Admission to the McCombs School of Business.

### **B A 288F. Foundations of Strategy for Executives.**

Restricted to students in the Executive MBA Program. Explore the foundations of strategy at the top management level, specifically, the antecedents, formulations, and effects of firm strategies. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **B A 188T, 288T, 388T. Strategic Management.**

Designed to help students develop a general management orientation. Subjects include the role of the general manager, formulating business and corporate-level strategy, managing strategic change, strategy implementation, and developing general managers. For each semester hour of credit earned, one lecture hour a week for one semester. Business Administration 188T, 288T, 388T and Management 385 (Topic 49: Strategic Management) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the McCombs School of Business.

### **B A 389T. Managing People and Organizations.**

Development of the general areas of theory most central to dealing with the varieties of social/psychological behavior of direct import to the administrator and manager. Three lecture hours a week for one semester. Prerequisite: Admission to the McCombs School of Business.

### **B A 390C. Hardware, Software, and Telecommunications.**

Provides a broad familiarity with the latest advances in the fundamental concepts and terminology of computer architecture and software. Three lecture hours a week for one semester. Prerequisite: Admission to the McCombs School of Business and to the concentration in information systems management.

### **B A 190D, 290D, 390D. Management Information Systems.**

The use of decision support systems and database management concepts in an organization for information management and processing by mainframe and personal computer. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the McCombs School of Business.

### **B A 390F. Information Systems Design and Implementation.**

Specification, design, implementation, and testing of information systems. Three lecture hours a week for one semester. Prerequisite: Admission to the McCombs School of Business.

### **B A 390H. Managing Information.**

Management and use of information in organizations, including database management, analytical approaches for effective information management, and organizational issues. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the McCombs School of Business.

**B A 390J. Data Communications, Networks, and Distributed Processing.**

Functional aspects of data communications, computer networks, and distributed information systems, using campus computers and the network systems available in the classroom. Three lecture hours a week for one semester. Prerequisite: Admission to the McCombs School of Business.

**B A 191, 291, 391, 691. Special Studies in Business Administration.**

Conference course. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

Topic 1: Finance.

Topic 2: Management.

Topic 3: Real Estate.

Topic 4: Risk Management.

Topic 5: Accounting.

Topic 6: Marketing.

Topic 8: Business, Government, and Society.

**B A 192C, 292C, 392C, 692C. Special Studies in Business, Government, and Society.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192D, 292D, 392D, 692D. Special Studies in Business, Government, and Society.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192E, 292E, 392E, 692E. Special Studies in Finance.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192F, 292F, 392F, 692F. Special Studies in Finance.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192G, 292G, 392G, 692G. Special Studies in International Business.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192H, 292H, 392H, 692H. Special Studies in International Business.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the credit/

no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192J, 292J, 392J, 692J. Special Studies in Legal Environment of Business.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192K, 292K, 392K, 692K. Special Studies in Legal Environment of Business.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192L, 292L, 392L, 692L. Special Studies in Management.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192M, 292M, 392M, 692M. Special Studies in Management.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192N, 292N, 392N, 692N. Special Studies in Management Information Systems.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192P, 292P, 392P, 692P. Special Studies in Management Information Systems.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192Q, 292Q, 392Q, 692Q. Special Studies in Marketing.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192R, 292R, 392R, 692R. Special Studies in Marketing.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192S, 292S, 392S, 692S. Special Studies in Operations.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192T, 292T, 392T, 692T. Special Studies in Operations.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192U, 292U, 392U, 692U. Special Studies in Risk Management.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 192V, 292V, 392V, 692V. Special Studies in Risk Management.**

Restricted to McCombs graduate students. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Conference course. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**B A 398L. Written and Oral Communication for International Students.**

Designed to provide students at the high-intermediate level of English proficiency with communication skills beyond pronunciation and grammatical accuracy. Three lecture hours a week for one semester. Prerequisite: Graduate standing, admission to a doctoral program in the McCombs School of Business, and consent of instructor.

**B A 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in business administration, completion of the core courses for the degree, and consent of the supervising professor and the graduate adviser.

**B A 398T. Supervised Teaching in Business Administration.**

Teaching in the McCombs School of Business for two semesters under the close direction of the course instructor or supervisor; weekly group meetings with the instructor, individual consultations, and reports throughout the teaching period. Three lecture hours a week for one semester. Prerequisite: Graduate standing, approval of the department chair and the dean, and appointment as a teaching assistant.

**Professional Courses****Business Analytics Courses****Business Analytics: BAX****Lower-Division Courses****BAX 304. Introduction to Problem Solving and Programming.**

Same as Management Information Systems 304. Restricted to students in the McCombs School of Business. Programming skills for creating easy-to-maintain systems for business applications. Object-oriented

and structured methodologies with Python. Three lecture hours a week for one semester. Management Information Systems 304 and Business Analytics 304 may not both be counted. Offered on the letter-grade basis only.

**BAX 305. Programming for Data Analytics.**

Restricted to students in the McCombs School of Business Three lecture hours a week for one semester.

**BAX 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Business Analytics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**Upper-Division Courses****BAX 325. Database Management.**

Same as Management Information Systems 325. Restricted to students in the McCombs School of Business. Beginning and intermediate topics in data modeling for relational database management systems. Three lecture hours a week for one semester. Management Information Systems 325 and Business Analytics 325 may not both be counted. Offered on the letter-grade basis only.

**BAX 327. Data Management.**

Restricted to students in the McCombs School of Business Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**BAX 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Business Analytics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**BAX 338. Supply Chain Modeling and Optimization.**

Same as Operations Management 338. Restricted to students in a business major. Framing, formulating, and applying quantitative optimization and descriptive models to support supply chain and operations management decisions, using spreadsheets and other software. Requires familiarity with spreadsheets. Three lecture hours a week for one semester. Only one of the following may be counted: Operations Management 337 (Topic 2), 338, Business Analytics 338. Offered on the letter-grade basis only. Prerequisite: Operations Management 334M, 235, or 235H.

**BAX 357. Predictive Analytics.**

Restricted to students in the McCombs School of Business Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Statistics 301, 301H, 309, or 309H.

**BAX 358. Optimization Methods and Decision Making.**

Restricted to students in the McCombs School of Business Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Management Information Systems 304 or Business Analytics 305; and one of the following options: Statistics 235 and Decision Sciences 235, or Statistics 371G, or Statistics 371H.

### **BAX 360, 460. Information and Analysis.**

Same as Marketing 360. Same as Marketing 460. Restricted to students in a business major. The development and analysis of information for marketing management sources. For each semester hour of credit earned, one lecture hour a week for one semester. Marketing 360, 460 and Business Analytics 360, 460 may not both be counted. Prerequisite: Marketing 337 or 337H, and Statistics 301, 301H, 309 or 309H.

### **BAX 362. Auditing and Control.**

Same as Accounting 362. Restricted to students in a business major. Professional practice standards and procedures of auditing: ethics, legal liability, sampling methods, control systems, control design, and control evaluation. Three lecture hours a week for one semester. Only one of the following may be counted: Accounting 358C, 362, 380K (Topic 4), Business Analytics 362. Prerequisite: Accounting 311 or 311H, and 312 or 312H, with a grade of at least C- in each.

### **BAX 372. Topics in Business Analytics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Advanced Analytics Programming.** Restricted to students in a business major. Focuses hands-on data analysis using the Python programming language. Subjects include machine learning tasks such as classification and clustering. Only one of the following may be counted: Management Information Systems 373 (Topic: Advanced Analytics Programming), 373 (Topic 11), Business Analytics 372 (Topic 1). Additional prerequisite: Management Information Systems 304 or Business Analytics 304 with a grade of at least C-.

**Topic 2: Predictive Analytics and Data Mining.** Introduces the data mining process and primary data mining techniques employed to extract intelligence from data and evaluates the strengths and weaknesses of data mining techniques applied to challenges in various business domains. Only one of the following may be counted: Management Information Systems 373 (Topic 17), Marketing 372 (Topic: Predictive Analysis and Data Mining), 372 (Topic 22), Business Analytics 372 (Topic 2). Additional prerequisite: Statistics 301, 301H, 309 or 309H.

**Topic 4: User Generated Content Analytics.** Restricted to students in a business major. Designed to showcase the virtually unlimited opportunities that exist today to leverage the power of user generated content analytics. Focuses on a gamut of questions ranging from strategic to op Only one of the following may be counted: Management Information Systems 373 (Topic: User Generated Content Analytics), 373 (Topic 25), Business Analytics 372 (Topic 4).

**Topic 5: Financial Technology.** Restricted to business majors. Explore an overview of the most recent technological advances that are changing the financial services industry and how these technological breakthroughs offer new ways for people to save, invest, borrow, and transact. Analyze how new technologies create value in the financial industry, from reducing unit cost, increasing transparency, increasing competition, creating network effects, leveraging economies of scales, and lowering asymmetric information. Examine the competitive landscape and the market opportunities and threats for incumbents and new entrants. Only one of the following may be counted: Finance 372 (Topic: Financial Technology), 372 (Topic 5), Business Analytics 372 (Topic 5).

**Topic 6: Optimization Method in Finance.** Same as Decision Science 372 (Topic 6). Explore quantitative methods and techniques in optimization and simulation, and their use in financial decision making. Discuss theory and application in portfolio selection, options and other derivative pricing, index tracking, risk measures, volatility estimating. Examine linear, quadratic, nonlinear, and integer programming; dynamic programming; robust optimization; Monte Carlo methods and variance reduction techniques. Emphasis

will be placed on problem solving with advanced computational programming languages. Only one of the following may be counted: Finance 372 (Topic: Optimization Method in Finance), 372 (Topic 6), Statistics 372 (Topic 6), Business Analytics 372 (Topic 6), Decision Science 372 (Topic 6).

**Topic 7: People Analytics.** Restricted to students in a business major. Explore the use of analytics in the creation and management of human capital. Examine the recruiting, selecting, deploying, developing and managing performance of employees. Only one of the following may be counted: Management 337 (Topic: People Analytics), 337 (Topic 7), Business Analytics 372 (Topic 7).

**Topic 8: Pricing and Channels.** Restricted to students in a business major. Explore the concepts, theory and latest thinking bearing on the key issues in pricing and channels, taking the perspective of the marketing manager. Apply concepts and theory, through extensive case analyses and multiple assignments, to the solution of pricing and channel problems in realistic business settings. Only one of the following may be counted: Marketing 372 (Topic: Pricing and Channels), 372 (Topic 14), Business Analytics (Topic 8).

**Topic 9: Data Analytics for Marketing.** Introduction to the world of making more effective marketing decisions through the use of data. Examine sources of data, methods of collecting and cleaning the data, analyzing the data, and finally presenting the data in meaningful and impactful ways. Use real-world data and applications from a variety of industries, the objective is to assist in familiarizing with the empirical and analytical tools needed to make effective marketing decisions in the age of large and plentiful datasets. Only one of the following may be counted: Marketing 372 (Topic: Data Analytics for Marketing), 372 (Topic 23), Business Analytics 372 (Topic 9).

**Topic 10: Data Driven Marketing.** Explore marketing research analytics using various types of data analytics and statistical learning modes. Only one of the following may be counted: Marketing 372 (Topic: Data Driven Marketing), 372 (Topic 25), Business Analytics 372 (Topic 10).

**Topic 16: Supply Chain Analytics.** Restricted to students in a business major. Study dynamic demand forecasting models based on both data aggregation as well as hierarchical aggregation of point-of-sale predictive analytics. Explore the use of developed predictive dynamic models for operations planning and operations decision making. Only one of the following may be counted: Operations Management 337 (Topic: Supply Chain Analytics), 337 (Topic 6), Business Analytics 372 (Topic 16). Additional prerequisite: Credit or registration for Operations Management 334M, 235 or 235H.

**Topic 17: Health Care Analytics.** Restricted to students in a business major. Explore key management challenges and how data may be leveraged to guide decisions and improve operations, with the unifying theme of providing health care services in a manner that leads to lower cost and higher quality. Only one of the following may be counted: Management Information Systems 373 (Topic: Healthcare Analytics), 373 (Topic 26), Operations Management 337 (Topic: Healthcare Analytics), 337 (Topic 8), Business Analytics 372 (Topic 17).

**Topic 20: Financial and Econometric Time Series Modeling.** Restricted to students in a business major. Examine statistical forecasting methods used in business with real data series such as interest rates and stock returns. Explore Box-Jenkins models; exponential smoothing models; ARCH/GARCH models for varying volatility in financial returns; seasonal adjustment of time series; tests for nonstationarity of time series; and modeling multiple time series. Statistics 372 (Topic 5) and Business Analytics 372 (Topic 20) may not both be counted. Additional prerequisite: Statistics 235, 235H, 371G, 371H or Statistics and Data Sciences 358 or Economics 341K; or other course with basic knowledge about regression.

**Topic 23: Social Media Analytics.** Restricted to students in a business major. Introduction to social network analysis for business value using statistical optimization and decision theory; and foundation for

analyzing online search and conversation data for market sensing, sentiments, product quality, reputation, recommendations, and brand awareness. Management Information Systems 373 (Topic 23) and Business Analytics 372 (Topic 23) may not both be counted.

## Graduate Courses

## Professional Courses

# Business, Government, and Society Courses

## Business, Government, and Society: BGS

### Lower-Division Courses

### Upper-Division Courses

#### **BGS 325. Social and Ethical Responsibility of Business.**

Restricted to students in a business major. Examines ethical aspects of the decision-making processes of managers and employees. Also explores responsibility of firms to society and other constituencies. Three lecture hours a week for one semester.

#### **BGS 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in Business, Government, and Society.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office, or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Business, Government, and Society. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

#### **BGS 170, 270, 370. Topics in Business, Government, and Society.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Energy Technology and Policy.** Designed to give students an understanding of the broad context of energy production and consumption in the U.S. and the world. Discusses past energy trends and fundamentals of energy and power, including fossil fuels and renewable energy sources and technologies. Explores different energy resources, environmental impacts, and societal uses of energy, and concludes with an evaluation of future energy technology options. Additional prerequisite: Upper-division standing.

**Topic 2: Ethics, CSR, and Service Learning.** Examines reasons that seemingly good people sometimes make unethical choices. Explores real-life ethical dilemmas, our decision-making processes, and ideal behavior for the future. An Academic Service Learning course, partnering with corporations (like Google, Inc.), the City of Austin, local non-profits, and other local universities to engage in service projects. For each semester hour of credit earned, one lecture hour a week for one semester. Business, Government, and Society 370.2 and 370 (Topic: Ethics, CSR, & Service Learning) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 3: Business Ethics and Corporate Social Responsibility.** Focuses on the development of ethical leadership and responsibility. Learn about basic concepts relevant to business ethics, develop ethical principles in a variety of business domains, and practice discussing ethical issues with people from a variety of viewpoints and backgrounds. Business, Government, and Society 370 (Topic: Busn Ethics & Socl Responsblty) and 370 (Topic 3) may not both be counted.

**Topic 4: International Business and Politics.** Business, Government, and Society 370 (Topic: Internatl Busn/Politics) and 370 (Topic 4) may not both be counted.

**Topic 6: Business and Society.** Explore the relationship between business firms and society. Only one of the following may be counted: Business, Government, Society 370 (Topic: Business and Society), 370 (Topic 6), Government 355M (Topic: Business and Society), 360N (Topic: Business and Society), 360O.

**Topic 10: Nontechnical Exploration and Production.** Restricted enrollment; contact the Energy Management and Innovation Center for permission to register. Introduction to the oil and gas exploration and production business for nontechnical personnel. Subjects include prospect generation and leasing, drilling, production, processing, transportation, and closing out a project. Business Government and Society 370 (Topic: Oil and Gas Exploration for Nontechnical Personnel) and 170 (Topic 10), 270 (Topic 10), 370 (Topic 10) may not both be counted. Additional prerequisite: Sophomore standing.

#### **BGS 170S, 270S, 370S. Social and Cultural Entrepreneurship.**

Restricted to students accepted to the Maymester Abroad Program. Create a business to address social problems, using social and creative means to design market-based approaches to aid a specific cultural group. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Business, Government, and Society 370 (Topic: Socl/Cultrl Entrprnrshp) and 370S may not both be counted. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

#### **BGS 371. Corporate Political Strategy.**

A study of how the political and regulatory environment enables and constrains business activity and how individual firms and groups of firms can ethically yet effectively lobby legislatures, negotiate with regulators, create industry associations, make campaign contributions, and engage in other political activity to gain competitive advantage. Three lecture hours a week for one semester. Only one of the following may be counted: Business, Government, and Society 371, Marketing 372 (Topic: Corporate Political Strategy), 172, 272, 372 (Topic 15). Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

#### **BGS 372. Strategic Corporate Social Responsibility.**

A study of how corporations can engage in corporate social responsibility and sustainable activities to improve the world with strategic considerations kept in mind. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

#### **BGS 373. Strategic Corporate Communication.**

Studies corporate efforts to inform, motivate, and persuade various constituencies, including investors, employees, communities, and regulators. Subjects include public relations, investor relations, and government relations. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

#### **BGS 374. Global Political Economy.**

Exploration of how firms can successfully integrate their traditional strategies with non-market strategy in the global arena, including how to successfully engage with international non-market actors such as foreign governments, regulators, political parties, NGOs, and the media. Examines the necessary tools to craft successful, integrated firm strategies in diverse institutional and political environments. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

**BGS 175, 275, 375. Business and Policy in the Age of Inequality.**

Examine inequality and its implications as managers and as citizens, and explore how to deal proactively with the consequences of this pervasive phenomenon. For each semester hour of credit earned, one lecture hour a week for one semester. Business Government and Society 370 (Topic: Bus/Pol Age Of Inequality) and 375 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

**BGS 179, 379. Independent Research in Business, Government, and Society.**

Conference course. Only one of the following may be counted: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Risk Management 179, 379. Prerequisite: Sophomore standing, consent of instructor, and written approval from the department chair's office, before the first meeting of the course, on forms available in the department office for that purpose.

**Graduate Courses**

**BGS 180, 380. Topics in Business, Government, and Society.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**BGS 180C, 280C, 380C. Strategic Corporate Communication.**

Studies corporate efforts to inform, motivate, and persuade various constituencies, including investors, employees, communities, and regulators. Includes public relations, investor relations, and government relations. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**BGS 180D, 280D, 380D. Strategic Corporate Social Responsibility.**

Overview of corporate social responsibility (CSR) given the constraints of the business environment, with an emphasis on the conditions under which CSR can provide strategic value to firms through class discussions and group projects. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**BGS 180E, 280E, 380E. Global Political Economy.**

Exploration of how firms can successfully integrate their traditional strategies with non-market strategy in the global arena, including how to successfully engage with international non-market actors such as foreign governments, regulators, political parties, NGOs, and the media. Examines the necessary tools to craft successful, integrated firm strategies in diverse institutional and political environments. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**BGS 180G, 280G, 380G. Business and Policy in the Age of Inequality.**

Examine inequality and its implications as managers and as citizens, and explore how to deal proactively with the consequences of this pervasive phenomenon. For each semester hour of credit earned, one lecture hour a week for one semester. Business Government and Society 380 (Topic: Bus/Pol Age Of Inequality) and 180G, 280G, 380G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**BGS 281, 381. Law, Ethics, and Corporate Social Responsibility.**

Examines corporate responsibility issues and the tools necessary to manage relationships with external stakeholders such as governments, nongovernmental organizations, and communities in legal, political, and cultural contexts. Two or three lecture hours a week for one semester. Business, Government, and Society 381 and Legal Environment of Business 380 (Topic 36: Law, Ethics, and Corporate Social Responsibility) may not both be counted. Prerequisite: Graduate standing.

**BGS 381E. Law, Ethics and Corporate Social Responsibility: Energy.**

Examines the external relations challenges facing the energy industry. Focuses on the theory and practice of corporate social responsibility and government relations for the oil, natural gas, and electricity industries in the United States and the larger world. Explores the resource curse and its implications for oil and gas companies doing business overseas, the management of environmental health and safety risk in both the developed and developing world, energy facility siting, and NIMBY challenges in the United States. Some familiarity with energy law is helpful. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**BGS 181M, 281M, 381M. Social and Ethical Responsibility of Business.**

Restricted to students in the Master of Business Administration program. Examines ethical aspects of the managerial decision-making process and the application of fundamental ethical principles to business, legal, and social problems. Includes ethical implications of financial markets, race and gender discrimination, employee privacy, multinational business, and health, safety, environmental, and consumer issues. For each semester hour of credit earned, one lecture hour a week for one semester. Business, Government, and Society 181M, 281M, 381M and Legal Environment of Business 380 (Topic 1) may not both be counted. Prerequisite: Graduate standing.

**BGS 381N. Social and Ethical Responsibilities of Accountants.**

Restricted to students admitted to the Master in Professional Accounting program. Examines ethical aspects of the managerial decision-making process and the application of fundamental ethical principles to business, legal, and social problems. Includes ethical implications of financial markets, race and gender discrimination, employee privacy, multinational business, and health, safety, environmental, and consumer issues. Three lecture hours a week for one semester. Business, Government, and Society 381L and 381N may not both be counted. Prerequisite: Graduate standing.

**BGS 182, 282, 382. Corporate Political Strategy.**

A study of how the political and regulatory environment enables and constrains business activity and how individual firms and groups of firms can ethically, yet effectively, lobby legislatures, negotiate with regulators, create industry associations, make campaign contributions, and engage in other political activity to gain competitive advantage. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**BGS 382D. Economics of Health Care.**

Explores the production and provision of health care in the United States. Includes the study of basic economic concepts, differences between health care and other goods, impact of regulatory policies, and the importance of health for economic development. May include

international and ethical aspects of health care. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 382E. Energy Economics.**

Studies domestic and international policy issues of energy and the environment, with a focus on market solutions to various problems and market limitations in the allocation of environmental resources. Also examines the economics of fossil fuel alternatives. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 382L. Labor Economics.**

Studies the functioning of the labor market and examines determinants of wage and employment levels in perfect and imperfect labor markets. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 382R. Economic Analysis of Law.**

Uses economic analysis to study law and its impact on business activity. Includes the economics of contract law, tort law, property law, securities regulation, antitrust law, intellectual property, and environmental law. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 382S. Economics of Sustainable Business.**

Examines the policy and practical implications of sustainability. Topics covered may include property rights, air and water pollution, solid-waste disposal, hazardous substances, and wilderness preservation and the protection of endangered species. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 383. Business Ethics in the Global Market.**

Moral theory and its application to business issues in diverse cultures. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 384. Global Macroeconomic Policy.**

Practical study of global macroeconomic policy, including monetary policy, financial market regulation, and economic growth and development policies. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 385. Business, Government, and Public Policy.**

Studies the relationship between business and government throughout the policy process and examines the constitutional constraints that affect businesses across different political and legal systems. Explores ethical issues of the role of business in the policy process. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the Master of Business Administration program.

### **BGS 385W. Business, Government, and Public Policy: Washington Campus.**

Restricted to students in the executive Master of Business Administration program. Studies the relationship between business and government throughout the formation and implementation of public policy; includes examination from economic, political, legal, and behavioral perspectives. Focuses primarily on the political, regulatory, and legal system of the United States and addresses issues covered further in the Washington Campus event, a week-long seminar with policy makers in Washington DC that precedes the course. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 386. Market Structure and Performance.**

Studies industrial organization economics using game-theory to model strategic market behavior. Examines econometric methods used to test

hypotheses regarding firm conduct and market performance. Explores profit-maximizing business strategies of firms with market power and strategic interactions among firms in imperfectly competitive markets. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 287. Business Integrity.**

Examines how to make ethical decisions, take ethical actions, lead an ethical life, run ethical organizations, and fulfill corporate social responsibilities. Two lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 188, 288, 388. Behavioral Economics.**

Explores and applies existing behavioral economics findings to all areas of business, and also instructs how to run studies to learn how to "nudge" people toward or away from particular behaviors. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Business, Government, and Society 188, 288, 388; Marketing 382 (Topic: Behavioral Economics); 282, 382 (Topic 27). Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **BGS 389. Environmental Regulation of Business.**

Examines federal and state regulation of business activities that affect the environment and the potential liability of business for environmental damage. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 390. Behavioral and Institutional Economics.**

Uses aspects of the social sciences, including economics, psychology, and sociology to explore the evolution of economic organizations, the need for business regulation, bubbles and speculation, and economic herd behavior. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 390E. Business in the Global Political Environment.**

Examines global business from a political science perspective. Includes the politics of international trade and investment and the regulatory expectations of national regulators and of international organizations such as the World Trade Organization and the World Bank. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 390F. Federal Regulatory Policy.**

Studies the federal regulatory framework in the United States, including the processes through which regulations are promulgated and the stakeholders involved. Particular emphasis on cost-benefit analysis. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 390J. Modern Political Economy.**

Studies economic theory from Adam Smith to the modern day, with a focus on the interrelationship between economic models and political behavior. Explores the development of American capitalism; includes works from Marx, Hayek, Polanyi, and Williamson. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **BGS 191, 291, 391, 691. Conference Course in Business, Government, and Society.**

Individual instruction. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

## **Professional Courses**

# Chemical Engineering Courses

## Chemical Engineering: CHE

### Lower-Division Courses

#### **CHE 102. Introduction to Chemical Engineering.**

Restricted to freshmen. Introduction to chemical engineering, including problem solving and study skills. Opportunities and responsibilities of a career in chemical engineering. One lecture hour and one recitation hour a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only.

#### **CHE 210. Introduction to Computing.**

Restricted to chemical engineering majors. Computer programming focusing on basics of computing, high-level programming environments, and spreadsheets, with application to chemical engineering. Two lecture hours and one laboratory hour a week for one semester. Chemical engineering majors must make a grade of at least C- in this course.

#### **CHE 311. Engineering Sustainable Technologies.**

Flows of materials and energy in engineering environments at local, regional, and global scales, and the interaction of those anthropogenic flows with natural cycles of materials and energy. Discusses biogeochemical flows (grand cycles) and anthropogenic material flows at the national level, in industrial sectors, and for consumer products. Three lecture hours a week for one semester. Prerequisite: A high school course in chemistry and experience with Internet searches.

#### **CHE 317. Introduction to Chemical Engineering Analysis.**

Principles and applications of material and energy balances in process analysis. Three lecture hours and one to two recitation hours a week for one semester. Chemical engineering majors must make a grade of at least C- in this course in order to take upper-division courses in chemical engineering. Prerequisite: Chemical Engineering 210, Chemistry 302, and Mathematics 408D with a grade of at least C- in each.

#### **CHE 018C. Peer Mentorship.**

Restricted enrollment; contact the department for permission to take this course. Best practices for delivery of tutoring and/or grading for undergraduate chemical engineering majors. May be repeated for credit. Offered on the pass/fail basis only.

#### **CHE 319. Transport Phenomena.**

Restricted to chemical engineering majors. Basic study of momentum, energy, and mass transport. Includes viscous and turbulent flow, heat transfer, and mass diffusion. Three lecture hours and one to two recitation hours a week for one semester. Chemical Engineering 319 and Chemical Engineering 353 may not both be counted. Prerequisite: Chemical Engineering 317 and Mathematics 427J with a grade of at least C- in each.

#### **CHE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Chemical Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the McKetta Department of Chemical Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Upper-Division Courses

### **CHE 322. Thermodynamics.**

Introductory course in thermodynamics with special reference to chemical process applications: basic laws, thermodynamic properties of single component systems, expansion and compression of fluids, heat engines, multicomponent systems, physical equilibrium, chemical equilibrium. Three lecture hours and one recitation hour a week for one semester. Chemical engineering majors must make a grade of at least C- in this course. Prerequisite: Chemical Engineering 210, 317, Chemistry 353, and Mathematics 427J with a grade of at least C- in each.

### **CHE 322M. Molecular Thermodynamics.**

Statistical and molecular concepts, especially the role of the microscopic chemical potential. Three lecture hours a week for one semester. Chemical Engineering 322M and 379 (Topic: Molecular Thermodynamics) may not both be counted. Prerequisite: Chemical Engineering 322.

### **CHE 323. Chemical Engineering for Micro- and Nanofabrication.**

Definition and description of the terminology and processes of microelectronics, including semiconductor facilities and chemical processes for integrated circuit manufacture, with an emphasis on unit processes; the major unit process, including thin-film metals and dielectrics deposition and etching, silicon oxidation and etching, ion implantation, diffusion, lithography, planarization, and process control; and an overview of promising nanopatterning and nanofabrication techniques, such as particle-beam imaging, nanoimprint, and near-field probe imaging, implantation, diffusion, lithography, planarization, and process control. Three lecture hours a week for one semester. Prerequisite: Chemistry 328M and 328N.

### **CHE 325L. Cooperative Engineering.**

This course covers the work period of chemical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Chemical Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Chemical Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Chemical Engineering 325LY and appointment for a full-time cooperative work tour.

### **CHE 225M. Cooperative Engineering.**

Covers the work period of chemical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Chemical Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Chemical Engineering 225MA and appointment for a full-time cooperative work tour.

### **CHE 125N. Cooperative Engineering.**

This course covers the work period of chemical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Chemical Engineering 325LZ or 225MB, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

**CHE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Chemical Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the McKetta Department of Chemical Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

**CHE 333T. Engineering Communication.**

Advanced technical communication skills, with emphasis on writing strategies for technical documents, oral presentations, and visual aids. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 333T, Biomedical Engineering 333T, Communication 333T, Civil Engineering 333T, Chemical Engineering 333T, Electrical Engineering 333T, Engineering Studies 333T, Mechanical Engineering 333T, Petroleum and Geosystems Engineering 333T. Prerequisite: Rhetoric and Writing 306 with a grade of at least C-.

**CHE 335. Electrochemistry and Electrochemical Engineering.**

Fundamental principles of electrochemistry combined with mass transfer including applications in analytical chemistry as well as industrial electrochemistry. Three lecture hours per week for one semester. Chemical Engineering 335 and 379 (Topic: Electrochemistry/Chemical Engineering) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Chemical Engineering 319 (or 353) and 322 with a grade of at least B+ in each.

**CHE 337. Quantitative Analysis of Cellular and Molecular Biology.**

Analyzes biological systems from stoichiometric, thermodynamic, and kinetic perspectives. Case studies will illustrate how these principles are used to understand disease, control cellular behavior, and design protein-based therapeutics. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 350, Chemical Engineering 337, 379 (Topic: Quantitative Analysis of Cellular and Molecular Biology). Offered on the letter-grade basis only. Prerequisite: Biology 311D and Chemical Engineering 317.

**CHE 338. Biochemical Engineering.**

Restricted to chemical engineering majors. Introduction to basic biological processes including transcription, translation, protein/enzyme function, cellular energetics, protein secretion and modifications. Application of quantitative engineering principles to the analysis of biological processes, including thermodynamics, kinetics and stoichiometry. Three lecture hours and one discussion hour a week for one semester. Chemical Engineering 338 and 379 (Topic: Biochemical Engineering) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Chemical Engineering 317.

**CHE 339. Introduction to Biochemical Engineering.**

Microorganisms in chemical and biochemical syntheses; genetic manipulation of cells by classical and recombinant DNA techniques. Enzyme technology; design of bioreactors and microbial fermentations; separations of biological products. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 335, Biomedical Engineering 339, Chemical Engineering 339, 379 (Topic: Introduction to Biochemical Engineering). Prerequisite: Biology 311C and Chemistry 353.

**CHE 339P. Introduction to Biological Physics.**

Diffusion, dissipation, and driving forces in cellular processes. Locomotion of bacteria, basic modeling of biomolecular folding and

binding events, osmotic flows, and self-assembly in cells. Three lecture hours a week for one semester. Chemical Engineering 339P and 379 (Topic: Molecular Driving Force in Biology) may not both be counted. Prerequisite: Chemical Engineering 319 (or 353), 322, and 253K with a grade of at least C- in each, or consent of the department.

**CHE 339T. Cell and Tissue Engineering.**

Introduction to biomedical research in tissue engineering. Includes case studies of tissues and organs of the body, physiology and biology of tissue, pathologies of tissue, current clinical treatments, the role of engineers in development of new technologies to diagnose and treat pathologies, quantitative cellular and molecular techniques, and applications of synthetic and natural biomaterials. Three lecture hours a week for one semester. Only one of the following may be counted: Biomedical Engineering 379, Chemical Engineering 339T, 379 (Topic: Cell and Tissue Engineering). Prerequisite: Biology 311C and Chemical Engineering 350.

**CHE 341. Design for Environment.**

Overview of environmental assessment tools for chemical processes and products, including life cycle and risk assessments. Overview of design tools for improving environmental performance of chemical processes, including unit operations and flowsheet analysis methods. Three lecture hours a week for one semester.

**CHE 342. Chemical Engineering Economics and Business Analysis.**

Study of the economic decisions faced by chemical engineers. Discounted cash flow techniques. Personal finance, managerial economics, and other special topics. Three lecture hours a week for one semester. Only one of the following may be counted: Chemical Engineering 342, 384 (Topic: Chemical Engineering Economics and Business Analysis), 395G.

**CHE 343. Molecular Simulation of Materials.**

Introduction to basic molecular simulation techniques including molecular mechanics, molecular dynamics, and Monte Carlo method. Understanding of principles underlying these techniques, and how these techniques can be used to study the physical and chemical properties and behavior of materials at the molecular level. More advanced topics include molecular simulations in various ensembles (NVE, NVT, NPT, grand canonical), free energy computations, controlling dynamics, and association-bias Monte Carlo method. Elementary knowledge of physical chemistry, classical mechanics, and statistical thermodynamics is assumed. Three lecture hours a week for one semester. Chemical Engineering 343 and 379 (Topic: Simulation of Materials) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

**CHE 348. Numerical Methods in Chemical Engineering and Problem Solving.**

Numerical solutions to algebraic and differential equations; numerical methods to integration, interpolation, and regression analysis, with application to chemical engineering. Three lecture hours and one recitation hour a week for one semester. Chemical engineering majors must make a grade of at least C- in this course. Prerequisite: Chemical Engineering 210, 317, and Mathematics 427J with a grade of at least C- in each.

**CHE 350. Chemical Engineering Materials.**

Metallic, ceramic, polymeric, and composite materials. Crystal structures, phase diagrams, diffusion, and mechanical properties. Emphasis on structure-property-processing relationships. Three lecture hours a week for one semester. Prerequisite: Chemistry 353 with a grade of at least C-.

**CHE 253K. Applied Statistics.**

Statistical methods such as data exploration and summary, least-squares fitting, probability and probability distributions, statistical inference and hypothesis testing, analysis of variance, design of experiments, statistical quality control, and use of professional statistical software. Two lecture hours a week for one semester. Chemical engineering majors must make a grade of at least C- in this course. Prerequisite: Chemical Engineering 210, 317, and Mathematics 427J with a grade of at least C- in each.

**CHE 253M. Measurement, Control, and Data Analysis Laboratory.**

Laboratory safety; measurement and statistical analysis of transport process variables like temperature, pressure, and flow rate; computer data acquisition; feedback control; statistical process control and design of experiments; and production of professional-level lab reports. Five laboratory hours a week for one semester. Prerequisite: Chemical Engineering 333T, 319 or 353, and 253K with a grade of at least C- in each.

**CHE 354. Transport Processes.**

Design and analysis of heat exchangers, fluid-flow systems and equipment, and interphase-contact devices. Three lecture hours and one recitation hour a week for one semester. Chemical engineering majors must make a grade of at least C- in this course. Prerequisite: Chemical Engineering 319 (or 353) with a grade of at least C-.

**CHE 355. Introduction to Polymers.**

Synthesis, structural characterization, physical properties, and applications of polymers. Three lecture hours a week for one semester. Only one of the following may be counted: Chemical Engineering 355, Chemistry 367L, 367P. Prerequisite: Chemical Engineering 322.

**CHE 356. Optimization: Theory and Practice.**

Techniques of optimization, including formulation of optimization problems, one-dimensional search techniques, analytical methods, and n-dimensional search techniques; application of methods to process-industry problems. Three lecture hours a week for one semester. Prerequisite: Chemical Engineering 319 (or 353) and 348.

**CHE 357. Technology and Its Impact on the Environment.**

Study of sources and fates of environmental pollutants; environmental quality standards—their measurement and regulation; and pollution control design procedures. Three lecture hours a week for one semester. Prerequisite: Upper-division standing within the major or consent of department.

**CHE 359. Energy Technology and Policy.**

Technology and policy related to energy supply and demand, oil and gas production, coal utilization, hydrogen production, fuel cells, transportation, nuclear power, solar and wind energy, biomass utilization, energy conservation, and climate change. Three lecture hours a week for one semester. Only one of the following may be counted: Chemical Engineering 359, 379 (Topic: Energy Technology and Policy), 384 (Topic: Energy Technology and Policy).

**CHE 360. Process Control.**

Analysis of process dynamics and methods for the design of automatic control systems for chemical process plants. Three lecture hours and one to two recitation hours a week for one semester. Prerequisite: Chemical Engineering 322, 253M, and 354 with a grade of at least C- in each.

**CHE 363. Separation Processes and Mass Transfer.**

Design and analysis of equilibrium and mass transfer based on separations such as absorption, chromatography, crystallization, distillation, extraction, and membrane-based processes. Three lecture hours and one to two recitation hours a week for one semester. Chemical engineering majors must make a grade of at least C- in this course. Prerequisite: Chemical Engineering 319 (or 353) and 322 with a grade of at least C- in each.

**CHE 264. Chemical Engineering Process and Projects Laboratory.**

Experimental studies of unit operations. Laboratory safety. Statistical data analysis. Written and oral reports. Six laboratory hours a week for one semester. Prerequisite: Chemical Engineering 253M and 363 with a grade in each of at least C-.

**CHE 364S. Chemical Process Safety.**

Emphasizes quantitative engineering analysis based on the application of mass and energy balances, fluid mechanics of incompressible, compressible and two-phase fluids, heat transfer and conservation of energy, diffusion and dispersion under highly variable conditions, reaction kinetics, and process control. Subjects include various probabilistic and statistical methods to characterize accident and loss performance, techniques for process hazard analysis, risk assessment, and accident investigations. Three lecture hours a week for one semester. Chemical Engineering 364S and 379 (Topic: Chemical Process Safety) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Chemical Engineering 319 (or 353), 253K, and 354.

**CHE 372. Chemical Reactor Analysis and Design.**

Planning and design of commercial chemical and biochemical reaction systems for producing fuels, polymers, specialty and consumer products, pharmaceuticals, solid-state devices, and other products. Three lecture hours and one recitation hour a week for one semester. Chemical engineering majors must make a grade of at least C- in this course. Prerequisite: Chemical Engineering 322, 348, and 354 with a grade of at least C- in each.

**CHE 473K. Process Design and Operations.**

Process design, economics, and safety; design projects representing a variety of industries and products. Three lecture hours and two recitation hours a week for one semester. Prerequisite: Chemical Engineering 354, 363, and 372 with a grade of at least C- in each.

**CHE 376K. Process Evaluation and Quality Control.**

Use of statistical techniques to evaluate, compare, and optimize processes. Design of experiments for improved product quality control. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and admission to an appropriate major sequence in engineering or consent of the department.

**CHE 177K, 277K, 377K. Undergraduate Research Project.**

Recommended for students considering graduate study. Topic to be selected in conjunction with individual chemical engineering faculty member, with approval by the department chair. A final written report is required. Three, six, or nine laboratory hours a week for one semester. Prerequisite: A grade point average of at least 3.00 in chemical engineering courses; students must submit an application to the undergraduate advising office.

**CHE 177L, 277L, 377L. Undergraduate Research Project.**

Subject matter to be selected in conjunction with individual chemical engineering faculty member, with approval by the department chair. A final written report is required. For every credit hour earned, three laboratory hours a week for one semester. Prerequisite: Chemical

Engineering 177K, 277K, or 377K and a grade point average of at least 3.00 in chemical engineering coursework; students must submit application to the undergraduate advising office.

### **CHE 179, 279, 379, 479. Topics in Chemical Engineering.**

Special topics of current interest. The equivalent of one, two, three, or four lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of the department.

**Topic 43: Entrepreneurship.** Chemical Engineering 379 (Topic: Entrepreneurship) and 379 (Topic 43) may not both be counted

**Topic 64: From Data to Decisions.** Chemical Engineering 379 (Topic: From Data to Decisions) and 379 (Topic 64) may not both be counted.

### **CHE 679H. Undergraduate Honors Thesis.**

Research performed during two consecutive semesters under the supervision of a chemical engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the department chair. The student makes two oral presentations and writes a thesis. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and the Bachelor of Science in Chemical Engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Chemical Engineering Honors Program; for 679HB, enrollment in the Chemical Engineering Honors Program and credit for Chemical Engineering 679HA.

## **Graduate Courses**

### **CHE 180C. Laboratory Safety.**

Safe laboratory practice. Training in use of fire extinguishers and first aid. Case studies of laboratory accidents. One lecture hour a week for one semester. Prerequisite: Graduate standing in chemical engineering.

### **CHE 381N. Fluid Flow and Heat Transfer.**

Advanced treatment of fluid flow and heat transfer problems in chemical engineering. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **CHE 381P. Advanced Analysis for Chemical Engineers.**

Applications of mathematical methods to chemical engineering problems, with emphasis on differential equations, linear analysis and matrices, and real analysis and complex variables. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **CHE 381Q. Quantitative Analysis of Cellular and Molecular Biology.**

Analyzes biological systems from stoichiometric, thermodynamic, and kinetic perspectives. Case studies illustrate how these principles are used to understand disease, control cellular behavior, and design protein-based therapeutics. Three lecture hours a week for one semester. Chemical Engineering 381Q and 384 (Topic: Quantitative Analysis of Cellular and Molecular Biology) may not both be counted. Prerequisite: Graduate standing.

### **CHE 384E. Electrochemistry and Electrochemical Engineering.**

Fundamental principles of electrochemistry combined with mass transfer including applications in analytical chemistry as well as industrial electrochemistry. Three lecture hours a week for one semester. Chemical Engineering 384T (Topic: Electrochemistry/Chemical Engineering) and 384E may not both be counted. Prerequisite: Graduate standing.

### **CHE 384K. Chemical Kinetics and Surface Chemistry.**

Application of chemical reaction kinetics to the prediction and determination of reaction rates and reaction selectivity. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Chemical Engineering 387K or consent of instructor.

### **CHE 384S. Current and Emerging Trends in Chemical Engineering Research.**

Overview of current and emerging trends in chemical engineering research with frequent guest presentations by leading scholarly and industrial researchers in the discipline. Three lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **CHE 384T. Topics in Chemical Engineering.**

Three lecture hours a week for one semester. Chemical Engineering 384 and 384T may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **CHE 185, 285, 385, 685. Research.**

For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in chemical engineering, or graduate standing and consent of instructor.

### **CHE 085C. Research.**

Restricted to chemical engineering majors. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **CHE 385M. Surface Phenomena.**

Liquid/fluid interfaces including equilibrium and nonequilibrium phenomena. Topics covered include capillarity, thermodynamics, surface rheology, and streaming potentials. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **CHE 385P. Optimization: Theory and Practice.**

Techniques of optimization, including formulation of optimization problems, one-dimensional search techniques, analytical methods, and n-dimensional search techniques; application of methods to process-industry problems. Three lecture hours a week for one semester. Chemical Engineering 384 (Topic: Optimization: Theory and Practice) and 385P may not both be counted. Prerequisite: Graduate standing.

### **CHE 386K. Theory of X-Ray Diffraction.**

Application of basic diffraction theory to polycrystalline and single crystal materials. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **CHE 386L. Laboratory Experiments in X-Ray Diffraction.**

Application of X-ray diffraction techniques to the examination of polycrystalline and single crystal materials. Two or three lecture hours and three or four laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **CHE 387K. Advanced Thermodynamics.**

Applications of thermodynamics to chemical engineering processes. Three lecture hours a week for one semester. Prerequisite: Graduate standing in chemical engineering, or graduate standing and consent of instructor.

**CHE 387M. Mass Transfer.**

Advanced treatment of diffusional mass transfer operations in chemical engineering. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**CHE 388K. Separations Processes.**

Advanced treatment of modern chemical engineering separations processes. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**CHE 391. Elements of Modern Control Theory.**

Introduction to fundamentals of dynamic optimization and system theory; applications to engineering processes. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**CHE 391J. Reaction Kinetics.**

Three lecture hours a week for one semester. Chemical Engineering 384T (Topic: Reaction Kinetics) and 391J may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing

**CHE 391M. Mathematical Modeling of Engineered Systems.**

Introduction to fundamentals of dynamic system modeling and associated numerical solution methods with applications to engineering systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**CHE 391S. Molecular Simulation of Materials.**

Introduction to basic molecular simulation techniques including molecular mechanics, molecular dynamics, and Monte Carlo method. Understanding of principles underlying these techniques, and how these techniques can be used to study the physical and chemical properties and behavior of materials at the molecular level. More advanced subjects include molecular simulations in various ensembles (NVE, NVT, NPT, grand canonical), free energy computations, controlling dynamics, and association-bias Monte Carlo method. Elementary knowledge of physical chemistry, classical mechanics, and statistical thermodynamics is assumed. Three lecture hours a week for one semester. Chemical Engineering 384 (Topic: Simulation of Materials) and 391S may not both be counted. Prerequisite: Graduate standing.

**CHE 392. Polymer Science.**

Details of polymerization mechanisms; structure-property relationships, fundamentals of processing, and characterization of high polymers. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**CHE 392P. Introduction to Polymer Materials Science.**

Synthesis, structural characterization, physical properties, and applications of polymers. Three lecture hours a week for one semester. Chemical Engineering 384 (Topic: Introduction to Polymer Material Science) and 392P may not both be counted. Prerequisite: Graduate standing.

**CHE 395C. Chemical Processes for Microelectronics.**

Introduction to the chemical processes and the manufacturing operations used in microelectronics device fabrication. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**CHE 395E. Polymer Science and Engineering Laboratory.**

Training in the preparation and instrumental characterization of polymers, blends, and compounds. Twelve laboratory hours a week for one semester. Prerequisite: Graduate standing.

**CHE 395G. Chemical Engineering Economics and Business Analysis.**

Study of the economic decisions faced by chemical engineers. Discounted cash flow techniques. Personal finance, managerial economics, and other special topics. Three lecture hours a week for one semester. Only one of the following may be counted: Chemical Engineering 342, 379 (Topic: Chemical Engineering Economics and Business Analysis), 395G. Prerequisite: Graduate standing in chemical engineering, or graduate standing and consent of instructor.

**CHE 395J. Product and Process Development.**

Product and process innovation in the process industries; screening criteria; needs-requirements research; evaluation. Three lecture hours a week for one semester. Chemical Engineering 379 (Topic: Product and Process Development) and 395J may not both be counted. Prerequisite: Graduate standing in chemical engineering, or graduate standing and consent of instructor.

**CHE 395K. Design for Environment.**

Overview of environmental assessment tools for chemical processes and products, including life cycle and risk assessments. Overview of design tools for improving environmental performance of chemical processes, including unit operations and flow sheet analysis methods. Three lecture hours a week for one semester. Chemical Engineering 384 (Topic 19: Design for Environment) and 395K may not both be counted. Prerequisite: Graduate standing in chemical engineering, or graduate standing and consent of instructor.

**CHE 397M. Graduate Research Internship.**

Research associated with enrollment in the Graduate Research Internship Program (GRIP). The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing in chemical engineering and consent of instructor and the dean of the Cockrell School of Engineering.

**CHE 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in chemical engineering and consent of the graduate adviser; for 698B, Chemical Engineering 698A.

**CHE 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in chemical engineering and consent of the graduate adviser.

**CHE 398T. Supervised Teaching in Chemical Engineering.**

Teaching under the close supervision of the instructor for one to four semesters; weekly group meetings; individual consultation; reports. Three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant.

**CHE 399W, 499W, 599W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

**Professional Courses**

# Chemistry Courses

## Chemistry: CH

### Lower-Division Courses

#### CH 301 (TCCN: CHEM 1309, CHEM 1311). Principles of Chemistry I.

Three lecture hours a week for one semester; some sections may also require one enrichment/discussion hour a week. Only one of the following may be counted: Chemistry 301, 301C, 301H, 301N, 304K. Prerequisite: An appropriate score on the Department of Chemistry placement examination.

#### CH 301C, 401C. Foundations of Chemistry I.

An introduction to chemistry for chemistry majors. Includes gases, atomic theory, bonding, and thermodynamics. For 301C, three lecture hours a week for one semester; for 401C three lecture and three laboratory hours a week for one semester. Only one of the following may be counted: Chemistry 301, 301C, 301H, 301N, 304K.

#### CH 301H. Principles of Chemistry I: Honors.

Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 301, 301C, 301H, 301N, 304K. Prerequisite: Credit with a grade of at least C- or registration for one of the following: Mathematics 408C, 408D, 408K, 308L, 408L, 408M, 408N, 408R, 408S.

#### CH 301N. Chemistry in Our World I.

Designed for non-science and Textiles and Apparel majors. Examine the nature of matter, energy, chemical reactions, and chemical thermodynamics. Discuss how these fundamentals of chemistry relate to real-world applications. Not intended as preparation for Chemistry 301. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 301, 301C, 301H, 301N, 304K.

#### CH 302 (TCCN: CHEM 1312). Principles of Chemistry II.

Development and application of concepts, theories, and laws underlying chemistry. Three lecture hours a week for one semester. Some sections also require one enrichment/discussion hour a week. Only one of the following may be counted: Chemistry 302, 302C, 302H, 302N, 305. Prerequisite: Chemistry 301 or 301H with a grade of at least C-.

#### CH 302C, 402C. Foundations of Chemistry II.

An introduction to chemistry for chemistry majors. Includes equilibria, kinetics, nuclear chemistry, inorganic chemistry, and electrochemistry. For 301C, three lecture hours a week for one semester; for 401C three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Chemistry 302, 302C, 302H, 302N, 305. Prerequisite: Chemistry 301C with a grade of C- or higher.

#### CH 302H. Principles of Chemistry II: Honors.

Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 302, 302C, 302H, 302N, 305. Prerequisite: Chemistry 301H with a grade of at least C-; credit with a grade of at least C- or registration for one of the following: Mathematics 408C, 408D, 408K (or 308K), 308L, 408L, 408M, 408N, 408R, or 408S.

#### CH 302N. Chemistry in Our World II.

Designed for non-science and Textiles and Apparel majors. Examine water chemistry, acids and bases, electrochemistry, elementary organic chemistry, polymers, and nutrition. Discuss how these fundamentals of chemistry relate to real-world applications. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry

302, 302C, 302H, 302N, or 305. Prerequisite: Chemistry 301, 301C, 301H, or 301N (or 304K).

#### CH 303. Mathematical Introduction to Theories of Matter.

Introduction to the quantum theoretic description of atoms, molecules, solids, nuclei, elementary particles, and cosmology. Matrix mechanics and group theory. Three lecture hours a week for one semester. Chemistry 303 may be used instead of either Chemistry 302 or Chemistry 301 and 302 in fulfilling the prerequisites of other chemistry courses, except by students seeking the Bachelor of Science in Chemistry degree. Chemistry 303 may be counted in addition to Chemistry 301 and 302. Not recommended by the Health Professions Office for Medical College Admission Test preparation.

#### CH 204. Introduction to Chemical Practice.

Introduction to the techniques of modern experimental chemistry. Designed to provide basic laboratory and analytical skills. May include organic, analytical, and physical chemistry, as well as materials science. Four laboratory hours and one hour of discussion a week for one semester. Some sections may also require one hour of computer laboratory a week. Only one of the following may be counted: Chemistry 204, 317, or 104M and 104N. Prerequisite: Credit with a grade of at least C- or registration for Chemistry 302 or 302H.

#### CH 104M (TCCN: CHEM 1109, CHEM 1111). Introduction to Chemical Practice I.

Introduction to the techniques of modern experimental chemistry. Designed to provide basic laboratory and analytical skills. May include organic, analytical, and physical chemistry, as well as materials science. One lecture hour and three laboratory hours a week for one semester. Only one of the following may be counted: Chemistry 204, 317, or 104M and 104N. Prerequisite: Credit with a grade of at least C- or registration for Chemistry 301 or 301H.

#### CH 104N (TCCN: CHEM 1112). Introduction to Chemical Practice II.

Introduction to the techniques of modern experimental chemistry. Designed to provide basic laboratory and analytical skills. May include organic, analytical, and physical chemistry, as well as materials science. One lecture hour and three laboratory hours a week for one semester. Only one of the following may be counted: Chemistry 204, 317, or 104M and 104N. Prerequisite: Credit with a grade of at least a C- or registration for Chemistry 302 or 302H; and credit with a grade of at least C- in the following coursework: Chemistry 104M, and Chemistry 301 or 301H.

#### CH 206K. Undergraduate Research.

Introduction to research practices; supervised individual undergraduate research in chemistry. Six to ten laboratory hours a week for one semester. May be repeated for credit, but no more than four semester hours may be counted toward a degree in chemistry. Hours beyond four must be taken on the pass/fail basis. May be repeated for credit. Prerequisite: Consent of the undergraduate adviser in chemistry.

#### CH 107, 207. Conference Course.

Supervised study in chemistry. One discussion hour a week for one semester, with additional hours to be arranged. May not be counted toward a major or minor in chemistry. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

#### CH 207K. Introduction to Science Outreach in Elementary Schools.

Developing and presenting level-appropriate science laboratories to students in local elementary schools. A hands-on, discovery learning approach to science is emphasized. The equivalent of five lecture hours

a week for one semester, with field hours to be arranged. May be counted as an elective only.

### **CH 207L. Peer Teaching.**

Students act as peer teaching assistants in other University chemistry courses, mainly large general chemistry lecture sections. Two hours of lecture and training a week for one semester, and two to three hours a week leading student group discussions. May not be counted toward any degree in chemistry. Prerequisite: Chemistry 301 and consent of the coordinator of the Peer Teaching Assistant Program.

### **CH 108, 208, 308, 408. Topics in Chemistry.**

For each semester hour of credit earned, one lecture hour a week for one semester; some topics may require additional discussion hours. May not be counted toward a major or minor in chemistry. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

### **CH 110K (TCCN: CHEM 2123). Organic Chemistry Laboratory.**

Primarily for premedical, predoctoral, life sciences, and pharmacy majors. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- in the following coursework: Chemistry 302 or 302H, 204, 317, or 104M and 104N; and credit or registration for one of the following: Chemistry 320M or 328M.

### **CH 110L (TCCN: CHEM 2125). Organic Chemistry Laboratory.**

Primarily for premedical, predoctoral, life sciences, and pharmacy majors. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Chemistry 110K.

### **CH 317. Descriptive Inorganic Chemistry.**

Synthesis and properties of inorganic, bioinorganic, and organometallic compounds. One lecture hour and six laboratory hours a week for one semester. Only one of the following may be counted: Chemistry 204, 317, or 104M and 104N. Prerequisite: Credit with a grade of at least C- or registration for Chemistry 302, 302C, 402C, or 302H.

### **CH 119C. Professional Development for Chemists.**

Restricted to chemistry majors. Explore professional development in chemistry, excellence in research, scientific communication, ethics, and career planning. One lecture hour a week for one semester. Offered on the pass/fail basis only.

### **CH 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Chemistry.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **CH 220C. Organic Chemistry Laboratory.**

One lecture hour and five laboratory hours a week for one semester. Only one of the following may be counted: Chemistry 110L, 220C, 128L. Prerequisite: Credit with a grade of at least C- or registration for Chemistry 320N; and the following coursework with a grade of at least C- in each: Chemistry 204, 317, or 104M and 104N; and 320M or 328M.

### **CH 320M. Organic Chemistry I.**

Primarily for premedical, predoctoral, life sciences, and pharmacy majors. Development of organic chemical structure, nomenclature, and reactivity. Three lecture hours a week for one semester. Only one of the following

may be counted: Chemistry 320M, 328C, 328M. Prerequisite: Chemistry 302, 302C, 402C, or 302H with a grade of at least C-.

### **CH 320N. Organic Chemistry II.**

Primarily for premedical, predoctoral, life sciences, and pharmacy majors. The development of organic chemical functional group reactivity, reaction mechanisms, with analogous aqueous transformations in biochemical settings. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 320N, 328N, 329C. Prerequisite: The following coursework with a grade of at least C-: Chemistry 320M, or 328M.

### **CH 328C. Structure and Reactivity of Organic Chemistry I.**

Explore the development of organic chemical structure, nomenclature, and reactivity. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 320M, 328C, 328M. Prerequisite: One of the following with a grade of at least C-: Chemistry 302, 302C, 402C, or 302H.

### **CH 128K. Organic Chemistry Laboratory.**

One lecture hour and three laboratory hours a week for one semester. May not be counted by students with credit for Chemistry 220C. Chemistry 110K and 128K may not both be counted. Prerequisite: Credit with a grade of at least C- or registration for Chemistry 328M; and the following coursework with a grade of at least C- in each: Chemistry 302, 302C, 402C, or 302H; and 204, 317, or 104M and 104N.

### **CH 128L. Organic Chemistry Laboratory.**

One lecture hour and three laboratory hours a week for one semester. May not be counted by students with credit for Chemistry 210C or 220C. Only one of the following may be counted: Chemistry 110L, 118L, 128L. Prerequisite: Credit or registration for Chemistry 318N or 328N; and the following coursework with a grade of at least C- in each: Chemistry 118K or 128K; and 318M or 328M.

### **CH 328M. Organic Chemistry I.**

Primarily for chemistry and chemical engineering majors. The development of organic chemical structure, nomenclature, and reactivity. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 320M, 328C, 328M. Prerequisite: Chemistry 302, 302C, 402C, or 302H with a grade of at least C-.

### **CH 328N. Organic Chemistry II.**

Primarily for chemistry and chemical engineering majors. The development of organic chemical reactivity, with an emphasis on synthesis and polymers. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 320N, 328N, 329C. Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 328M and 128K.

### **CH 329C. Structure and Reactivity of Organic Chemistry II.**

Explore the development of organic chemical reactivity, with an emphasis on synthesis and polymers. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 320N, 328N, 329C. Prerequisite: Chemistry 328C with a grade of at least C-.

### **CH 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Chemistry.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry. University credit is awarded for work in an exchange program; it may be counted as coursework taken in

residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **CH 329W. Cooperative Chemistry/Biochemistry.**

This course covers the work period of chemistry and biochemistry students in the Cooperative Education program, which provides supervised work experience by arrangement with the employer and the supervising instructor. Forty laboratory hours a week for one semester. The student must repeat the course each work period and must take it twice to receive credit toward the degree; at least one of these registrations must be during a long-session semester. No more than three semester hours may be counted toward the major requirement; no more than six semester hours may be counted toward the degree. The student's first registration must be on the pass/fail basis. Prerequisite: Application to become a member of the Cooperative Chemistry/Biochemistry Program, and consent of the Department of Chemistry and Biochemistry undergraduate adviser.

### **CH 431. Inorganic Chemistry.**

Survey of the chemistry of the elements, incorporating both descriptive and theoretical aspects. Open-ended experiments designed to illustrate a variety of synthetic techniques. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 302, 302C, 402C, or 302H; Chemistry 204, 317, or 104M and 104N; and Chemistry 320M or 328M.

### **CH 341. Special Topics in Laboratory Chemistry.**

Examples of topics are physical measurements techniques; electronics for scientists; advanced synthetic chemistry (organic or inorganic); separation techniques. One lecture hour and six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Eight semester hours of coursework in organic chemistry and consent of the undergraduate adviser.

### **CH 644. Chemical Education: Secondary School.**

Issues and techniques in secondary school teaching of chemical sciences. Three lecture hours a week for two semesters. For students seeking the Bachelor of Science in Chemistry: Teaching Option degree. May not be counted toward any other degree in chemistry or biochemistry. Prerequisite: For 644A, eight semester hours of coursework in organic chemistry and credit or registration for Chemistry 144K; for 644B, Chemistry 644A, 144K, and credit or registration for Chemistry 144L.

### **CH 144K. Chemical Education Laboratory I.**

Development of classroom demonstrations, laboratory experiments, and teaching aids for secondary school teaching of the chemical sciences. Two laboratory hours a week for one semester. For students seeking the Bachelor of Science in Chemistry: Teaching Option degree. May not be counted toward any other degree in chemistry. Prerequisite: Credit or registration for Chemistry 644A.

### **CH 144L. Chemical Education Laboratory II.**

Development of classroom demonstrations, laboratory experiments, and teaching aids for secondary school teaching of the chemical sciences. Two laboratory hours a week for one semester. For students seeking the Bachelor of Science in Chemistry: Teaching Option degree. May not be counted toward any other degree in chemistry. Prerequisite: Credit or registration for Chemistry 644B.

### **CH 352D. Chemical Data Analysis.**

An introduction to the analysis and interpretation of data gathered from chemical instrumentation. Three lecture hours a week for one semester.

Prerequisite: Mathematics 408D or 408M. Credit with a grade of at least C- in Physics 316 and 116L, or Physics 303L and 103N.

### **CH 353. Physical Chemistry I.**

For chemistry and chemical engineering majors. Equations of state, laws of thermodynamics, ideal and nonideal solutions, phase equilibria, thermodynamics of chemical reactions. Three lecture hours a week for one semester. Chemistry 353 and 353M may not both be counted. Prerequisite: Mathematics 408C and 408D, or two of the following: Mathematics 408K, 408L, 408M, 408N, 408S; Chemistry 302, 302C, 402C, or 302H with a grade of at least C-; and Physics 316 and 116L, 303L and 103N, or 317L and 117N.

### **CH 153K. Physical Chemistry Laboratory.**

Three laboratory hours a week for one semester. Prerequisite: Chemistry 353 or 353M with a grade of at least C-.

### **CH 353M. Physical Chemistry I for Life Sciences.**

For biochemistry and biology majors. Thermochemistry and kinetics of reactions in cells, enzyme catalysis, electrical and transport properties of membranes. Three lecture hours a week for one semester. Chemistry 353 and 353M may not both be counted. Prerequisite: Chemistry 302, 302C, 402C, or 302H with a grade of at least C-; credit with a grade of at least C- in one of the following: Mathematics 408C, 408K, 408N, or 408R; Physics 316 and 116L, 303L and 103N, or 317L and 117N.

### **CH 354. Quantum Chemistry and Spectroscopy.**

Fundamental principles of quantum mechanics, exactly soluble model problems, electronic structure of atoms and molecules, spectroscopy. Three lecture hours a week for one semester. Prerequisite: Chemistry 353 or 353M with a grade of at least C-.

### **CH 354C. Statistical Mechanics.**

An introduction to statistical mechanics. Three lecture hours a week for one semester. Chemistry 354C and 354L may not both be counted. Prerequisite: Chemistry 354 with a grade of at least C-.

### **CH 154K. Physical Chemistry Laboratory.**

Three laboratory hours a week for one semester. Prerequisite: Chemistry 153K, and 353 or 353M with a grade of at least C-; and credit or registration for Chemistry 354 or 354L.

### **CH 354L. Physical Chemistry II.**

Molecular energy levels, statistical thermodynamics (macroscopic thermodynamic functions from molecular input), and physical and chemical kinetics, with emphasis on the molecular viewpoint. Three lecture hours a week for one semester. Chemistry 354C and 354L may not both be counted. Prerequisite: Chemistry 354 with a grade of at least C-.

### **CH 354M. Introduction to Computational Methods in Chemistry.**

Construction and implementation of numerical algorithms for solving differential equations which are common in chemistry. Subjects include chemical reaction rates, quantum mechanics, molecular dynamics, normal modes of vibration, and Monte Carlo methods. Three lecture hours a week for one semester. Only one of the following may be counted: Chemistry 354M, 368 (Topic: Applied Math and Computation in Chemistry), 368 (Topic: Computational Chemistry), 368 (Topic: Intro to Computational Methods in Chemistry). Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 302 or 302H, and Chemistry 353 or 353M.

### **CH 354S. Elements of Spectroscopy.**

Primarily for chemistry and biochemistry majors. Fundamentals of spectroscopy, with knowledge of elementary quantum mechanics. Separation of electronic, vibrational, rotational and spin quantum states; interaction of radiation and matter; theory and application of different types of spectroscopy including photoelectron, electronic absorption and emission, vibrational (infrared and Raman), rotational and magnetic resonance. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 353 or 353M, and 354 or 354L.

### **CH 455. Fundamentals of Analytical Chemistry.**

For biochemistry, engineering, and clinical laboratory science majors. Chemical and instrumental methods in analytical chemistry. Three lecture hours and three laboratory hours a week for one semester. Chemistry 455 and 456 may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 302, 302C, 402C, or 302H; and Chemistry 204, 317, or 104M and 104N.

### **CH 456. Analytical Chemistry.**

For chemistry majors. Three lecture hours and three laboratory hours a week for one semester. Chemistry 455 and 456 may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 302, 302C, 402C, or 302H; and Chemistry 204, 317, or 104M and 104N.

### **CH 366C. Advanced Inorganic Chemistry: Organometallics Catalysis.**

An in-depth and mostly chronological study of the evolution of organometallic and inorganic coordination chemistry, and its continued critical importance in a range of industrial processes. Covers a range of topical catalytic processes, paying particular attention to how chemical bonding and kinetics can be exploited to affect the relative rates of reaction. Three lecture hours a week for one semester. Chemistry 366C and 368 (Topic: Advanced Inorganic Chemistry: Organometallic Chemistry and Catalysis) may not both be counted. Prerequisite: Credit with a grade of at least C- in Chemistry 431.

### **CH 366D. Bio-inorganic Chemistry and Spectroscopy.**

Covers the roles of transition metals in biology, mostly with respect to protein structure, function, and catalysis. Also covers methods of spectroscopy that are used to probe the geometrical and electronic structure of metal ions in proteins. Exposure to modern areas of study in bio-inorganic chemistry. Explores the principles of transition metal chemistry in the context of biological systems. Three lecture hours a week for one semester. Chemistry 366D and 368 (Topic: Bio-inorganic Chemistry) may not both be counted. Prerequisite: Chemistry 431 with a grade of at least C-.

### **CH 366E. Chemistry of the s-, p-, d-, and f-Block Elements.**

Focuses on the electronic structure of molecules and complexes, and how such information can predict important properties such as chemical reactivity, spectroscopy, and magnetism. Intended for upper-division chemistry majors with a basic understanding of concepts in inorganic chemistry. Three lecture hours a week for one semester. Chemistry 366E and 368 (Topic: Inorganic Reactions and Structures) may not both be counted. Prerequisite: Credit with a grade of at least C- for Chemistry 431.

### **CH 367C. Materials Chemistry.**

Restricted to chemistry majors. Introduction to structural and physical properties of materials and synthetic strategies for making new materials in the nanoscale and mesoscale regimes, in addition to covering instrumental methods used to probe materials properties. Some aspects of applications (semiconductor devices, solar and fuel

cells, smart and responsive materials) will be covered to illustrate the kinds of material properties that need to be considered in designing novel materials of specific function. Three lecture hours a week for one semester. Prerequisite: Chemistry 431 with a grade of at least C-.

### **CH 367L. Macromolecular Chemistry.**

Designed for chemistry and chemical engineering students. Occurrence, preparation, structure, and properties of macromolecular substances. Three lecture hours a week for one semester. Only one of the following may be counted: Chemical Engineering 355, Chemistry 367L, 367P. Prerequisite: Credit with a grade of at least C- in the following coursework: Chemistry 320M and 320N, or 328M and 328N; Chemistry 220C, or 128K and 128L; and Chemistry 353 or 353M.

### **CH 367P. Introduction to Polymer Science.**

Explore an overview of macromolecular soft materials including the fundamentals of polymer chemistry, physics, and engineering. Three lecture hours a week for one semester. Only one of the following may be counted: Chemical Engineering 355, Chemistry 367L, 367P. Prerequisite: Chemistry 320N, 328N, or 329C with a grade of at least C-.

### **CH 368. Advanced Topics in Chemistry.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 320M and 320N, or Chemistry 328M and 328N; credit with a grade of at least C- or registration for Chemistry 353 or 353M.

**Topic 1: Research Methods: UTeach.** Restricted to students in the UTeach-Natural Sciences program. Students use mathematics and science skills to solve research problems.

**Topic 2: Advanced Topic in Analytical Chemistry.**

**Topic 3: Advanced Topic in Inorganic Chemistry.**

**Topic 4: Advanced Topic in Organic Chemistry.**

**Topic 5: Advanced Topic in Physical Chemistry.**

### **CH 368L. Peer Teaching.**

Equivalent of three lecture hours a week for one semester. Chemistry 368 (Topic: Peer Teaching) and 368L may not both be counted.

### **CH 168Q, 268Q, 368Q, 468Q, 568Q, 668Q, 768Q, 868Q, 968Q. Advanced Topics in Chemistry.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary.

### **CH 369K. Techniques of Research.**

Advanced laboratory practice and introduction to research. One lecture hour and six laboratory hours a week for one semester. May be taken for a letter grade no more than twice. No more than six semester hours may be counted toward a degree in chemistry or biochemistry. May be repeated for credit. Prerequisite: Eight semester hours of coursework in organic chemistry; and six semester hours of upper-division chemistry courses approved by the undergraduate adviser's office, or consent of the undergraduate adviser in chemistry.

### **CH 371K. Science Outreach in Elementary Schools.**

Students develop and present level-appropriate science laboratories to students in local elementary schools. Students also plan and create the infrastructure needed to administer the science program in concert with the science curriculum at a specific elementary school. A hands-on, discovery learning approach to science is emphasized. One class hour and six hours of fieldwork a week for one semester. May be taken for a letter grade no more than twice. No more than six semester hours may be counted toward a degree in chemistry. May be repeated for credit. Prerequisite: Upper-division standing and at least 30 hours in residence.

### **CH 372C. Chemistry Peer Mentors in Research and Teaching.**

Students work as peer mentors and assistants in the teaching of chemistry, with emphasis on developing instructional materials and laboratories that teach fundamental chemistry with real world data. Students mentor students for at least six hours a week in addition to other weekly meetings. Hours to be arranged. May be taken for a letter grade no more than twice. No more than six semester hours may be counted toward a degree in chemistry. Biology 372C and Chemistry 372C may not both be counted. May be repeated for credit. Prerequisite: Chemistry 301 or 301H, and 302 or 302H with a grade of at least B in each; and consent of the undergraduate adviser.

### **CH 372S. Study and Research Abroad: Austin International Framework.**

Designed specifically for students participating in the AIF program. Facilitates student-led mini-seminars and video conference call discussions. Explores student research and wider learning and cultural experiences in Austin and abroad. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Enrollment in the Austin International Framework (AIF) program and consent of the instructor.

### **CH 375K, 475K. Individual Study in Chemistry.**

Supervised reading or individual tutorial sessions on advanced topics in chemistry. Three or four class hours a week for one semester. No more than six semester hours may be counted toward a degree in chemistry. May be repeated for credit. Prerequisite: Eight semester hours of coursework in organic chemistry, Chemistry 353, and consent of the undergraduate adviser.

### **CH 375P. Advanced Topics in Polymer Science.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Chemistry 367P with a grade of at least C-.

**Topic 1: Advanced Polymer Synthesis.** Explore a comprehensive overview of how to design and synthesize polymers found in everyday life. Discuss the everyday utility of synthetic polymers to put their significance into context.

**Topic 2: Polymer Physical Chemistry.** Examine the statistical, mechanical, and thermodynamic basis of polymer properties in melts, gels, and solutions. Explore the conformations and sizes of polymer molecules; the properties and structure of glassy, crystalline, and elastic (rubbery) polymers; the thermodynamics of polymer solutions, blends, and semi-crystalline materials; and the self-assembly of block polymers.

**Topic 3: Advanced Polymer Engineering.** Examine a multi-length scale (molecular, mesoscopic, and macroscopic) picture of mechanical and transport properties in polymeric materials, essential for rationally engineering polymers while addressing challenges in recycling, energy, healthcare, and sustainability.

### **CH 376K. Advanced Analytical Chemistry.**

Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Chemistry 353 and 456 with a grade of at least C- in each.

### **CH 378L. Capstone Research and Thesis.**

Develop a capstone project with a faculty adviser, with a focus on advanced laboratory techniques and experimental design. One lecture hour and six laboratory hours a week for one semester. Prerequisite: Upper-division standing, completion of at least ninety semester hours of coursework, and consent of the undergraduate adviser.

### **CH 379H. Chemistry Honors Tutorial Course.**

Laboratory research project in a specific field of chemistry under the supervision of one or more faculty members. Conference course. May be taken twice for credit. Must be taken in addition to the required hours for the Bachelor of Science in Chemistry degree. Students must enter no later than the first semester of the year of graduation. May be repeated for credit. Prerequisite: Consent of the student's research supervisor and the departmental honors adviser.

## **Graduate Courses**

### **CH 380L. Inorganic Reactions and Structures.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **CH 380M. Advanced Study in Chemistry.**

For nonchemistry majors. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, a bachelor's degree with a major in science or mathematics, and consent of the graduate adviser in chemistry.

### **CH 380N. Advanced Inorganic Chemistry: Spectroscopy and Structure.**

Advanced inorganic chemistry, with emphasis on structure, spectroscopy, and ligand field theory. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **CH 080R. Dual MD/PhD Program with UT Medical Branch.**

Preclinical medical study at the University of Texas Medical Branch at Galveston. May not be taken concurrently with another course at the University of Texas at Austin. Prerequisite: Graduate standing and admission to the MD/PhD dual degree program in chemistry.

### **CH 380T. Current Concepts in Chemistry and Biochemistry: UTeach.**

Designed for beginning graduate students seeking a review of modern chemical concepts. Three lecture hours a week for one semester. May be repeated for credit with consent of instructor. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **CH 381M. Advanced Analytical Chemistry.**

Theory and application of special methods and recent advances. Three lecture hours a week for one semester. Prerequisite: Graduate standing in chemistry and consent of instructor.

### **CH 382J. Survey of Physical Chemistry.**

Surface chemistry and catalysis, transport properties, macromolecules, electrochemistry and electrolyte solutions, molecular thermodynamics, solution kinetics, and photochemistry. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **CH 382K. Advanced Physical Chemistry: Introduction to Quantum Mechanics.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Chemistry 354 or the equivalent.

### **CH 382L. Advanced Physical Chemistry: Statistical Mechanics.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **CH 382M. Advanced Physical Chemistry.**

Quantum chemistry. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Chemistry 354, 382K, or consent of instructor.

### **CH 182T, 282T, 382T, 682T. Advanced Study and Research: UTeach.**

Designed for beginning graduate students seeking review of modern chemical concepts. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **CH 386J. Advanced Organic Chemistry.**

Advanced organic chemistry, with emphasis on theory and reaction mechanisms. Three lecture hours a week for one semester. Prerequisite: Graduate standing, six semester hours of coursework in organic chemistry, and six semester hours of coursework in physical chemistry.

### **CH 386K. Advanced Organic Chemistry.**

Advanced organic chemistry, with emphasis on synthetic methods. Three lecture hours a week for one semester. Prerequisite: Graduate standing, six semester hours of coursework in organic chemistry, and six semester hours of coursework in physical chemistry.

### **CH 387K. Biochemical Techniques.**

Discussion of procedures and equipment used in modern biochemical investigation, with laboratory work to provide experience in techniques of general importance. Two lecture hours and seven laboratory hours a week for one semester. Prerequisite: Graduate standing, six semester hours of undergraduate coursework in biochemistry, and consent of instructor.

### **CH 190. Seminar in Chemistry.**

The equivalent of one class hour a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in chemistry.

**Topic 1: Analytical-Physical Chemistry.** Offered on the credit/no credit basis only.

**Topic 2: Organic Chemistry.** Offered on the credit/no credit basis only.

**Topic 4: Inorganic Chemistry.** Offered on the credit/no credit basis only.

### **CH 390K. Advanced Topics in Inorganic Chemistry.**

Topics include magnetic resonance; organometallic, main-group, and transition metal chemistry; nonaqueous solvents; high-temperature superconductors; new developments in synthetic chemistry; and aspects of inorganic chemistry relevant to material science. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in chemistry, Chemistry 380L, and consent of instructor.

**Topic 1: Advanced Inorganic Chemistry: Organometallics & Catalysis.** Explores the evolution of organometallic and inorganic coordination chemistry, and its importance in a range of industrial processes; and covers a range of topical catalytic processes. Chemistry 390K (Topic 1) and 390K (Topic: Advanced Inorganic Chemistry: Organometallic Chemistry and Catalysis) may not both be counted.

**Topic 2: Advanced Inorganic Chemistry: Bio-Inorganic Chemistry.** Explores the roles of transition metals in biology, mostly with respect to protein structure, function and catalysis. Examines established and developing methods of spectroscopy used to probe the geometrical and electronic structure of metal ions in proteins. Analyzes modern areas of study in bio-inorganic chemistry, especially relating to the roles of metals in metalloenzymes, but also including emerging topics such as metallodrugs, metal-based imaging agents, and molecular sensors. The principles of transition metal chemistry will be explored, expanded and demonstrated in the context of biological systems.

Chemistry 390K (Topic: Bio-Inorganic Chemistry) and 390K (Topic 2) may not both be counted.

### **CH 390L. Advanced Topics in Analytical Chemistry.**

Topics include electrochemistry, electronics, mathematical methods, mass spectrometry, and optical methods. For most topics, three lecture hours a week for one semester; for topics on electronics and optical methods, two lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Advanced Analytical Chemistry: Electrochemistry.** Designed to introduce the fundamental principles of electrochemistry.

An overview of the structure and properties of the electrode/solution interface is presented, and followed by a more detailed discussion of how thermodynamics, kinetics, and mass transfer affect electrochemical processes. Includes specific electrochemical methods, including potential step and sweep techniques, pulse voltammetry, impedance spectroscopy, and hydrodynamic methods. Focuses on specialized electrochemical phenomena, including: photoelectrochemistry, coupled electrochemical and homogeneous reactions, and bulk electrolysis. Introduces the use of digital simulations to solve electrochemical problems. Chemistry 390L (Topic: Advanced Analytical Chemistry: Electrochemistry) and 390L (Topic 1) may not both be counted.

**Topic 2: Advanced Analytical Chemistry: Mass Spectrometry.** Overview of the instrumentation, methods, and theory of mass spectrometry and gas-phase ion chemistry. Subjects include ionization methods, mass analyzers, vacuum components and pressure measurement, ion activation methods, analytical figures of merit, and integration of mass spectrometry with separation methods. Other subjects include gas-phase thermochemistry, kinetic theory of ion fragmentation, interpretation of mass spectra, and special subjects that may include ion mobility, proteomics, imaging, and elemental analysis, among others. Chemistry 390L (Topic: Advanced Analytical Chemistry: Mass Spectrometry) and 390L (Topic 2) may not both be counted.

### **CH 391. Advanced Topics in Organic Chemistry.**

Topics include organic photochemistry; molecular orbital theory; free radical chemistry; organometallic compounds; nuclear magnetic resonance and mass spectrometry; organic synthesis. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **CH 391P. Introduction to Polymer Science.**

Explore an overview of macromolecular soft materials including the fundamentals of polymer chemistry, physics, and engineering. Three lecture hours a week for one semester. Chemistry 391P and 392N may not both be counted. Prerequisite: Graduate standing.

### **CH 392H. Biomolecular Structure by Nuclear Magnetic Resonance Spectroscopy.**

Theory and application of modern nuclear magnetic resonance spectroscopy methods. Emphasis on applications to biological macromolecules, including protein and nucleic acid structure determination. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **CH 392J. Molecular Biology of the Yeast *Saccharomyces*.**

The use of yeast as a tool for the study of important areas of eukaryotic biology; the use of classical and molecular genetic techniques in the study of gene expression, DNA replication and repair, development and growth control, protein targeting, and metabolism. Three lecture hours a

week for one semester. Prerequisite: Graduate standing, and Chemistry 329D or the equivalent or consent of instructor.

### **CH 392N. Physical Chemistry of Macromolecular Systems.**

Theory of macromolecular solutions and methods for characterization of macromolecular systems. Three lecture hours a week for one semester. Chemistry 391P and 392N may not both be counted. Prerequisite: Graduate standing, and undergraduate coursework in physical chemistry or consent of instructor.

### **CH 392T. Biotransformations of Drugs and Other Nonnutritive Compounds.**

Absorption and metabolism of naturally occurring and synthetic nonnutritive compounds. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor.

### **CH 392U. Comparative Biochemistry.**

Comparative aspects of protein structure, metabolism, respiration, and cellular regulation. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and consent of instructor.

### **CH 192W. Analytical Student Seminar.**

Student seminar presentations covering current research topics. Two lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **CH 393L. Advanced Topics in Physical Chemistry.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in chemistry and consent of instructor.

### **CH 393P. Advanced Topics in Polymer Science.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Chemistry 391P with a grade of at least C-.

**Topic 1: Advanced Polymer Synthesis.** Explore a comprehensive overview of how to design and synthesize polymers found in everyday life. Discuss the everyday utility of synthetic polymers to put their significance into context.

**Topic 2: Polymer Physical Chemistry.** Examine the statistical, mechanical, and thermodynamic basis of polymer properties in melts, gels, and solutions. Explore the conformations and sizes of polymer molecules; the properties and structure of glassy, crystalline, and elastic (rubbery) polymers; the thermodynamics of polymer solutions, blends, and semi-crystalline materials; and the self-assembly of block polymers.

**Topic 3: Advanced Polymer Engineering.** Examine a multi-length scale (molecular, mesoscopic, and macroscopic) picture of mechanical and transport properties in polymeric materials, essential for rationally engineering polymers while addressing challenges in recycling, energy, healthcare, and sustainability.

### **CH 395F. Genetics.**

Same as Biology 395F and Molecular Biology 395F. Basic principles of Mendelian and molecular genetics, and an exploration of the genetic toolbox using examples of analytic methods and modern genetic manipulations. Focus on the genetic analysis of model organisms. Use of genetic tools in dissecting complex biological pathways, developmental processes, and regulatory systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing. An introductory course in genetics, such as Biology 325, is strongly recommended.

### **CH 395H. Cell Biology.**

Same as Biology 395H and Molecular Biology 395H. Detailed consideration of mechanisms of growth control, cell cycle regulation, mitosis, cell signaling, protein targeting, and the integration of these processes. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and consent of instructor or Biology 395F and 395G, Chemistry 395F, Molecular Biology 395F and 395G.

### **CH 395K, 695K. Advanced Individual Study in Chemistry.**

Supervised reading or individual tutorial sessions on advanced topics in chemistry. For each semester hour of credit earned, one class hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing in chemistry and consent of the graduate adviser.

### **CH 197C, 297C, 397C, 597C, 697C. Problems in Chemistry.**

Conference course with laboratory work. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in chemistry and consent of instructor and the graduate adviser.

### **CH 197P, 297P, 397P, 597P, 697P. Problems in Chemistry.**

Conference course with laboratory. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in chemistry and consent of instructor.

### **CH 397S. Advanced Topics in Chemistry.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **CH 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in chemistry and consent of the graduate adviser; for 698B, Chemistry 698A.

### **CH 398T. Professional Development for Graduate Students in Chemistry.**

Restricted to graduate students in chemistry. Provides professional development skills to graduate students in chemistry. Subjects include excellence in teaching, scientific communication, grantsmanship, ethics, and career planning. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **CH 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

## **Chinese Courses**

### **Chinese: CHI**

#### **Lower-Division Courses**

##### **CHI 604. Accelerated First-Year Chinese.**

Designed for students who understand or speak but do not read or write Mandarin Chinese. Six class hours a week for one semester. Chinese 604 and 506 may not both be counted; Chinese 604 and 507 may not both be counted. Prerequisite: Results on the placement examination in Chinese that indicate that the student is ineligible to receive credit for Chinese

507. If the student is eligible to receive credit by examination for Chinese 506, this credit must not appear on the student's record.

### **CHI 506, 606. First-Year Chinese I.**

Modern Standard Chinese (Mandarin). Intended for students who do not understand or speak Mandarin Chinese. Six lecture hours a week for one semester. Chinese 604 and 506, 606 may not both be counted.

### **CHI 507, 607. First-Year Chinese II.**

Continuation of Chinese 506, 606. Intended for non-native speakers of Chinese. Six lecture hours a week for one semester. Chinese 604 and 507, 607 may not both be counted. Prerequisite: Chinese 506, 606 with a grade of at least C.

### **CHI 612. Accelerated Second-Year Chinese.**

Continuation of Chinese 604. Six class hours a week for one semester. Chinese 612 and 412K may not both be counted; Chinese 612 and 412L may not both be counted. Prerequisite: Chinese 604 with a grade of at least C.

### **CHI 312K, 412K. Second-Year Chinese I.**

Modern Standard Chinese (Mandarin). Intended for non-native speakers of Chinese. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Chinese 612 and 312K, 412K may not both be counted. Prerequisite: Chinese 507, 607 with a grade of at least C.

### **CHI 312L, 412L. Second-Year Chinese II.**

Intended for non-native speakers of Chinese. Continuation of Chinese 312K, 412K. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Chinese 612 and 312L, 412L may not both be counted. Prerequisite: Chinese 312K, 412K with a grade of at least C.

### **CHI 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Chinese.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **CHI 320K. Readings in Modern Chinese I.**

Readings in expository prose: selections from journals, newspapers, and other sources. Three lecture hours a week for one semester. Prerequisite: Chinese 612 or 412L with a grade of at least C.

### **CHI 320L. Readings in Modern Chinese II.**

Readings in modern fiction, poetry, and drama. Three lecture hours a week for one semester. Prerequisite: Chinese 320K with a grade of at least C.

### **CHI 322. Introduction to Classical Chinese.**

Beginning study of wen yen, the particles, and syntax of the Chinese classics. Three lecture hours a week for one semester. Prerequisite: Chinese 612 or 412L with a grade of at least C.

### **CHI 325K. Advanced Conversation I.**

Not open to native speakers of Chinese. Drill in conversation on general topics. Three lecture hours a week for one semester. Prerequisite: Chinese 412L with a grade of at least C.

### **CHI 325L. Advanced Conversation II.**

Not open to native speakers of Chinese. Practice in speaking Modern Standard Chinese. Three lecture hours a week for one semester. Prerequisite: Chinese 325K with a grade of at least C.

### **CHI 326. Business Chinese.**

Advanced Chinese conversation, with emphasis on business vocabulary. Three lecture hours a week for one semester. Chinese 326 and 330 (Topic: Business Chinese) may not both be counted. Prerequisite: Chinese 612, 320K, or 325K with a grade of at least C.

### **CHI 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Chinese.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **CHI 130D. Chinese across Disciplines.**

Reading and discussion of Chinese language materials related to the subject matter of another designated course in Asian studies. Meetings with the instructor will be devoted to the discussion of linguistic problems, literary features, and crucial passages. Individual instruction. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, concurrent enrollment in an appropriate Asian studies course, and written consent of instructor on form obtained from the undergraduate adviser.

### **CHI 340. Topics in Chinese Literature.**

Study of Chinese literary texts in the original. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Chinese 320K with a grade of at least C.

**Topic 1: Contemporary Chinese Literature.** Selected literary works from contemporary China (post 1949), in their original language. Focuses on translation and linguistic analysis, as well as discussion of the texts as works of literature. Chinese 340 (Topic: Contemporary Chinese Literature) and 340 (Topic 1) may not both be counted.

**Topic 2: Prose Writings by Lu Xun.** Chinese 340 (Topic: Prose Writings by Lu Xun) and 340 (Topic 2) may not both be counted.

**Topic 3: Modern Chinese Literature.** Selected literary works from modern China (pre 1949), focusing on translation, linguistic analysis, and discussion of these works as cultural and literary products within their socio-historical contexts. Chinese 340 (Topic: Modern Chinese Literature) and 340 (Topic 3) may not both be counted.

**Topic 4: Chinese Fiction from Taiwan.** Readings of works of fiction produced in contemporary Taiwan (1949 to present day) in Chinese. Readings include mainstream literature, stories written by writers of the Modernist and Nativist schools, and urban fiction since the late twentieth century. Chinese 340 (Topic: Chinese Fiction from Taiwan) and 340 (Topic 4) may not both be counted.

### **CHI 341. Classical Chinese Poetry.**

Study of Chinese poetry in the original. Three lecture hours a week for one semester. Chinese 340 (Topic: Classical Chinese Poetry) and 341 may not both be counted. Prerequisite: Chinese 320K with a grade of at least C.

### **CHI 360. Conference Course in Chinese Language and Literature.**

Supervised individual study of selected problems in Chinese language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor on form obtained from the undergraduate adviser.

## **Graduate Courses**

### **CHI 381. Conference Course in Chinese Language and Culture.**

Supervised individual study in Chinese language or culture. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor on form obtained from the graduate coordinator.

### **CHI 384. Topics in Chinese Language and Culture.**

Study of various aspects and periods of Chinese language or culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Chinese Film and Literature.** Chinese literature and film from the early twentieth century to the present within the sociohistorical context of modern China.

**Topic 3: Contemporary Chinese Literature.**

**Topic 5: Modern Chinese Literature.**

**Topic 7: Readings in Chinese Journals.**

## **Professional Courses**

# **Civil Engineering Courses**

## **Civil Engineering: C E**

### **Lower-Division Courses**

#### **C E 301. Civil Engineering Systems.**

Introduction to civil engineering as a career; engineering problem solving; use of computers for text, graphics, and data analysis; introduction to civil engineering measurements; breadth of disciplines within civil engineering; engineering ethics, sustainability. Two lecture hours and three laboratory hours a week for one semester.

#### **C E 311K. Introduction to Computer Methods.**

Organization and programming of civil engineering problems for computer solutions. Five hours a week for one semester, including lecture and laboratory. Prerequisite: Mathematics 408D or 408M.

#### **C E 311S. Probability and Statistics for Civil Engineers.**

Basic theory of probability and statistics with practical applications to civil engineering problems, including statistical inference and sampling. Additional subjects may include reliability and risk analyses, estimation and regression analyses, and experimental design. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Mathematics 408D or 408M.

#### **C E 319F. Elementary Mechanics of Fluids.**

Fluid properties, hydrostatics, elements of fluid dynamics, energy and momentum, boundary layers, similitude, pipe flow, metering instruments, drag forces. Three lecture hours and two laboratory hours a week for one semester. Civil Engineering 319F and Mechanical Engineering 330 may not both be counted. Prerequisite: Engineering Mechanics 306.

### **C E 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Civil Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Civil, Architectural and Environmental Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **C E 321. Transportation Systems.**

Planning, economics, location, construction, operation, maintenance, and design of transportation systems; concepts of various modes of transportation. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 311S.

### **C E 324P. Properties and Behavior of Engineering Materials.**

Structure, properties, and behavior of engineering materials, including concrete and metals. Laboratory exercises illustrate mechanical behavior of typical materials and demonstrate selected principles of mechanics. Three hours of lecture, and three hours of laboratory and supervised work a week for one semester. Prerequisite: Chemistry 301, Civil Engineering 333T, and Engineering Mechanics 319.

### **C E 325L. Cooperative Engineering.**

This course covers the work period of civil engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Civil Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Civil Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Civil Engineering 325LY and appointment for a full-time cooperative work tour.

### **C E 225M. Cooperative Engineering.**

Covers the work period of civil engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Civil Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Civil Engineering 225MA and appointment for a full-time cooperative work tour.

### **C E 125N. Cooperative Engineering.**

This course covers the work period of civil engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Civil Engineering 325LZ or 225MB, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

### **C E 329. Structural Analysis.**

Classical methods of analysis for determinate and indeterminate structures under stationary and moving loads. Three or four hours of lecture and supervised work a week for one semester. Prerequisite: Engineering Mechanics 319 and Civil Engineering 311K.

**C E 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Civil Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Civil, Architectural and Environmental Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**C E 331. Reinforced Concrete Design.**

Design of reinforced concrete beams and columns. Five hours of lecture and supervised work a week for one semester. Prerequisite: Civil Engineering 324P and 329.

**C E 333T. Engineering Communication.**

Technical communication skills for engineers, especially researching and writing technical documents for many kinds of readers, managing and documenting sources of information, using and explaining graphics, delivering oral presentations, working collaboratively, and eliciting information from experts and stakeholders. Two lecture hours and one and one half laboratory hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 333T, Biomedical Engineering 333T, Communication 333T, Civil Engineering 333T, Chemical Engineering 333T, Electrical Engineering 333T, Engineering Studies 333T, Mechanical Engineering 333T, Petroleum and Geosystems Engineering 333T. Prerequisite: Rhetoric and Writing 306.

**C E 335. Elements of Steel Design.**

Analysis and design of tension members, beams, columns, and bolted and welded connections. Five hours of lecture and supervised work a week for one semester. Prerequisite: Civil Engineering 324P and 329.

**C E 341. Introduction to Environmental Engineering.**

Quantitative evaluation of the environmental, economic, and technical problems involved in control of pollutants of the air, water, and land. Three lecture hours a week for one semester. Prerequisite: Chemistry 302 and Civil Engineering 319F.

**C E 342. Water and Wastewater Treatment Engineering.**

Application of chemical, biological, and physical principles to the analysis and design of treatment processes for drinking water, industrial process water, municipal wastewater, and water reuse applications. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 341 or Environmental Engineering 312.

**C E 346. Solid Waste Engineering and Management.**

Characteristics of municipal and industrial solid wastes, generation rates, collection systems, recycling, processing, and disposal. Three lecture hours a week for one semester, with occasional field trips. Prerequisite: Civil Engineering 341 or Environmental Engineering 312.

**C E 351. Concrete Materials.**

Portland cement, aggregates, supplementary cementing materials, properties of fresh and hardened concrete, concrete durability, mixture proportioning, concrete construction, and special concretes. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Civil Engineering 324P.

**C E 356. Elements of Hydraulic Engineering.**

Flow in closed conduits, hydraulic machinery; open-channel flow; flow measurement; design of storm sewers. Five hours a week for one

semester, including lecture and laboratory. Prerequisite: Civil Engineering 319F.

**C E 357. Geotechnical Engineering.**

Engineering properties of soils; hydraulic conductivity and shear strength of soils; soil compaction and consolidation; stresses with the soil mass; settlement of foundations of structures; laboratory measurements. Six hours a week for one semester, including lecture and laboratory. Prerequisite: Civil Engineering 319F.

**C E 358. Introductory Ocean Engineering.**

Wave theory and its applications to coastal engineering, wave energy conversion, and offshore structure technology. Includes fundamentals of inviscid and viscous flow of incompressible fluids, and applications of computational fluid dynamics (CFD) in design. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 319F.

**C E 360K. Foundation Engineering.**

Effect of geotechnical conditions on the behavior, proportioning, and choice of foundation type; design of shallow and deep foundations; study of foundation case histories. Five hours a week for one semester, including lecture and discussion. Offered in the fall semester only. Prerequisite: Civil Engineering 357.

**C E 362M. Advanced Reinforced Concrete Design.**

Design of reinforced concrete buildings, including floor systems and structural walls. Five hours of lecture and supervised work a week for one semester. Prerequisite: Civil Engineering 331.

**C E 362N. Advanced Steel Design.**

Design of steel buildings, beam columns, composite beams, plate girders, and connections. Five hours of lecture and supervised work a week for one semester. Prerequisite: Civil Engineering 335.

**C E 363. Advanced Structural Analysis.**

Structural analysis for forces and deflections using stiffness and flexibility approaches; application of energy methods in structural analysis; stiffness methods for computer-based structural analysis. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 329, and Mathematics 427J.

**C E 364. Design of Wastewater and Water Treatment Facilities.**

Analysis, synthesis, and integrated design of municipal water and wastewater treatment plants with an emphasis on novel water conservation and water reuse applications. Three lecture hours a week for one semester; additional hours to be arranged for design laboratory and field trips. Prerequisite: Credit or registration for Civil Engineering 342 and credit for Civil Engineering 356.

**C E 365K. Hydraulic Engineering Design.**

Application of engineering hydraulics to watershed management and urban infrastructure design; engineering hydrology; open-channel hydraulics; remotely sensed data analysis; hydraulic and hydrologic modeling tools; urban water quality and low impact design. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 356.

**C E 366K. Design of Bituminous Mixtures.**

Restricted to students admitted to major sequence in civil engineering. Fundamental properties of asphalt and aggregates, design and construction of asphalt mixtures, special mixtures, and superpave design method. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 321.

### **C E 367G. Design and Evaluation of Ground-Based Transportation Systems.**

Methods for design and evaluation of transportation systems, emphasizing roadway and non-motorized travel, in light of traveler safety, system operations, construction and maintenance costs, environmental impacts, and other considerations. Three lecture hours and two laboratory hours a week for one semester. Civil Engineering 367G and 377K (Topic: Design of Ground-Based Transportation) may not both be counted. Prerequisite: Civil Engineering 321.

### **C E 367P. Pavement Design and Performance.**

Basic principles of design of pavements for highways, airfields, and railroads; pavement construction, maintenance, and rehabilitation. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 324P.

### **C E 367R. Optimization Techniques for Transportation Engineers.**

Overview of optimization techniques, including linear programming, nonlinear optimization, and network flow algorithms including shortest path, maximum flow, and minimum spanning tree. Examples and applications primarily drawn from transportation engineering, with connections to other areas. Three lecture hours a week for one semester. Civil Engineering 367R and 377K (Topic: Optimization Techniques for Transportation Engineers) may not both be counted. Prerequisite: Civil Engineering 321.

### **C E 367T. Traffic Engineering.**

Driver and vehicle characteristics, traffic studies, traffic laws and ordinances, intersection capacity, signs, markings, signals, bus transit, parking, design of street systems, and operational controls. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 321.

### **C E 369L. Air Pollution Engineering.**

Characterization of sources, emissions, transport, transformation, effects, and control of outdoor and indoor air pollutants. Applications of chemistry, thermodynamics, and fluid mechanics in the selection and design of air pollution control equipment. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 341 or Environmental Engineering 312.

### **C E 369R. Indoor Air Quality.**

Sources, properties, transport and fate, human exposure, and adverse responses to indoor air pollutants. Control strategies and engineered technologies to mitigate impacts of gaseous and particle phase air pollutants in indoor environments. Three lecture hours a week for one semester. Civil Engineering 369R and 377K (Topic: Indoor Air Quality) may not both be counted. Prerequisite: Civil Engineering 311K and 319F; and Architectural Engineering 346N or Civil Engineering 341 or Environmental Engineering 312.

### **C E 370K. Environmental Sampling and Analysis.**

Principles of environmental chemistry; measurement of contaminants in air, water, and land environments; applications to municipal, industrial, and ambient samples. Six hours a week for one semester, including lecture and laboratory. Prerequisite: Civil Engineering 341.

### **C E 370L. Climate Change Mitigation.**

Explore the large-scale solutions to climate change systematically. Examine the fundamentals of climate science, mitigation of climate change through transformation of energy supply and end-use, geoengineering, and industrial carbon management. Discuss the social and economic context for engineered solutions. Three lecture hours a week for one semester. Civil Engineering 370L and 377K (Topic:

Climate Change Mitigation) may not both be counted. Prerequisite: Civil Engineering 341 or Environmental Engineering 312.

### **C E 370P. Engineering Professionalism.**

Examines professional engineering licensure, ethics, leadership, public service, and public policy, with an emphasis on multidisciplinary perspectives, legal and business considerations, and the importance of lifelong learning. Includes participation in a culminating major design project in public service, reflecting knowledge from technical electives and base level coursework. Three lecture hours a week for one semester. Only one of the following may be counted: Civil Engineering 177K (Topic: Engineering Professionalism), 370P and 171P. Prerequisite: Credit for any three of the following courses: Architectural Engineering 335, 345K, 358, 362L, or 366; Civil Engineering 331, 335, 351, 342, 346, 358, 360K, 362M, 362N, 363, 364, 365K, 366K, 367G, 367P, 367T, 367R, 369L, 369R, 370K, 374L, 374K or 375. Credit for Architectural Engineering 323K, Civil Engineering 321, 324P, 329, 341, 356, and 357.

### **C E 171P. Engineering Professionalism.**

Examines professional engineering licensure, ethics, leadership, public service, and public policy, with an emphasis on multidisciplinary perspectives, legal and business considerations, and the importance of lifelong learning. Includes participation in a culminating major design project in public service, reflecting knowledge from technical electives and base level coursework. Two lecture hours a week for one semester, with additional fieldwork hours to be arranged. Only one of the following may be counted: Civil Engineering 177K (Topic: Engineering Professionalism), 370P and 171P. Prerequisite: Credit or registration for one of the following: Civil Engineering 360K, 362M, 362N, 364, 365K, or 367G.

### **C E 374K. Hydrology.**

Phases of the hydrologic cycle and associated transport processes; land surface-atmosphere interaction; soil infiltration; rainfall runoff; unit hydrograph; flow routing; hydrologic statistics; and extreme events, including design storms and flows. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 311S and 356.

### **C E 374L. Groundwater Hydraulics.**

Darcy's law, steady flow in aquifers, aquifer and well testing, regional flow, numerical simulation of groundwater flow, unsaturated flow, and groundwater recharge. Three lecture hours a week for one semester. Prerequisite: Civil Engineering 356.

### **C E 375. Earth Slopes and Retaining Structures.**

Earth fills, excavations, and dams; soil compaction and ground improvement, seepage and dewatering; stability of natural slopes and embankments; earth-pressure theories; design of earth retaining structures. Three lecture hours a week for one semester. Offered in the spring semester only. Prerequisite: Civil Engineering 357.

### **C E 177K, 277K, 377K. Studies in Civil Engineering.**

Various specified topics or conference course. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 7: Independent Study.** Restricted to civil engineering majors. Independent research with a tenure track faculty member in the Department of Civil, Architectural, and Environmental Engineering. Prepare a project proposal and a final report, each of which is evaluated by the faculty supervisor. C E 177K, 277K, 377K (Topic 7) and C E 177K (Topic: Independent Study) may not both be counted. Additional prerequisite: Consent of instructor.

### **C E 177R. Internship.**

The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only.

### **C E 679H. Undergraduate Honors Thesis.**

Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Civil Engineering 679HA and enrollment in the Engineering Honors Program.

## **Graduate Courses**

### **C E 380P. Ocean Engineering Principles: Theory and Applications.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; and a course in differential equations and a course in fluid mechanics, or consent of instructor.

**Topic 4: Boundary Element Methods.** Formulation and numerical implementation of boundary element methods; applications to problems in fluid mechanics, structural analysis, and solid mechanics.

**Topic 5: Hydrodynamics of Marine Propulsors and Turbines.** Hydrofoil and lifting surface theory, actuator disk and lifting line theory, modeling via vortex lattice, panel methods, and Reynolds-Averaged Navier-Stokes solvers, optimum loading and blade design techniques for propellers and turbines, unsteady blade and shaft forces, and modeling of sheet cavitation. Civil Engineering 380P (Topic 5) and 397 (Topic 32: Hydrodynamics of Propulsors and Dynamic Positioning Systems) may not both be counted. Additional prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **C E 380S. Environmental Fluid Mechanics.**

Fundamentals of fluid mechanics applied in natural systems; analysis of energy; momentum, diffusion, turbulence, and stratification in lakes, rivers, and estuaries. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Civil Engineering 319F or consent of instructor.

### **C E 380T. Computational Environmental Fluid Mechanics.**

Basics of numerical methods as applied to the solution of the steady and unsteady fluid flow equations, such as the Euler and the Navier-Stokes equations and the advection-diffusion equation. Emphasis on finite volume methods as applied to fluid mechanics problems in civil and environmental engineering. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Civil Engineering 380S or an equivalent graduate course in fluid mechanics, and knowledge of a programming language.

### **C E 380W. Water Resources Engineering Research Seminar.**

Presentations and discussions on various topics in water resources engineering. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **C E 381E. Design of Energy Efficient and Healthy Buildings.**

Design of buildings for low energy use and optimal indoor air quality. Includes ventilation, energy efficiency, moisture problems, and prevention

by design. Three lecture hours a week for one semester. Prerequisite: Graduate standing in engineering or consent of instructor.

### **C E 381P. Computer Methods in Structural Analysis.**

Linear and nonlinear analysis of trusses and frames; introduction to structural stability; and computational aspects of linear and nonlinear structural analysis. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 381R. The Finite Element Method.**

Introductory concepts; weighted residual methods; strong and weak forms; boundary conditions; global v. local basis functions; error estimates; smooth and nonsmooth problems; one-dimensional second- and fourth-order problems; two-dimensional potential and plate problems; two-dimensional and three-dimensional elasticity; dynamic and eigenvalue problems; numerical, computational, and meshing issues; applications using commercial software. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Civil Engineering 381P or consent of instructor.

### **C E 381T. Numerical Modeling of Physical Systems.**

Survey of numerical methods; weighted residuals, finite differences, finite elements, boundary elements; applications to equilibrium, eigenvalue, and propagation problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 381W. Introduction to Wave Physics.**

An introductory course in the theory and modeling of propagating waves. Subjects may include scalar waves in 1-D and 2-D, traveling and standing waves, flexural waves in beams, dispersion, phase and group velocity, vector waves in 2-D and 3-D, waves in infinite media and semi-infinite media, P waves, SH waves, SV waves, Rayleigh and Love surface waves, Stoneley waves, reflection and transmission at interfaces, numerical modeling, radiation conditions, scattering and radiation from obstacles, and fluid-solid interaction. Three lecture hours a week for one semester. Civil Engineering 381W and 397 (Topic: Wave Propagation Analysis) may not both be counted. Prerequisite: Graduate standing.

### **C E 382L. Plastic Design in Metals.**

Principles and methods of plastic analyses and design, and their applications to continuous beams, frames, plates, connections, and multistory buildings. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Civil Engineering 335, and consent of instructor.

### **C E 382N. Structural Systems.**

Application of systems engineering principles to planning, design, and construction of building and bridge structures with emphasis on performance requirements and economic factors. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 383C. Experimental Methods in Structural Engineering.**

Survey of experimental methods used in structural engineering, including loading and measurement techniques and systems used in structural research. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **C E 383D. Steel Bridge Design.**

Design of steel highway bridges, including the analysis and design of composite girder, box girder, and cable-stayed bridges. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Civil Engineering 362N or the equivalent.

### **C E 383F. Structural Fire Engineering.**

Behavior and design of structures subjected to fire; heat transfer fundamentals and modeling of fires; material properties at elevated temperature; structural fire resistance and protection; calculating structure-fire response. Three lecture hours a week for one semester. Civil Engineering 383F and 397 (Topic: Structural Fire Engineering) may not both be counted. Prerequisite: Graduate standing.

### **C E 383L. Advanced Reinforced Concrete Members.**

Behavior of reinforced concrete members; critical review of specifications; limit states; anchorage and development of reinforcement; shear; torsion. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Civil Engineering 331, and consent of instructor.

### **C E 383N. Advanced Reinforced Concrete Structures.**

Behavior of reinforced concrete structures, with emphasis on ductility and detailing of frames, slabs, and braced (shearwall) structures. Detailing for seismic loads. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Civil Engineering 383L, and consent of instructor.

### **C E 383P. Prestressed Concrete.**

Theory, advantages, and limitations; various systems of prestressing; composite construction; continuous span theory. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Civil Engineering 331, and consent of instructor.

### **C E 383R. Repair and Strengthening of Reinforced Concrete Structures.**

Evaluation of condition, strength, serviceability, and ductility of existing structures; criteria for rehabilitation; retrofit techniques for change in function, loading, and seismic forces. Three lecture hours a week for one semester. Civil Engineering 383R and 397 (Topic: Repair and Strengthening of Reinforced Concrete Structures) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **C E 383S. Structural Concrete Bridges.**

Planning, design, and construction of reinforced concrete and prestressed concrete bridges, including arch, frame, girder, and cable stay systems; aesthetics, economy, and durability. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and credit or registration for Civil Engineering 383P.

### **C E 383T. Plasticity in Structural Concrete.**

Application of plasticity theory to structural concrete columns, girders, frames, and joints. Development and application of transparent detailing methods such as truss models, strut-and-tie models, and both strip and yield line methods for slabs. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Civil Engineering 383L, and consent of instructor.

### **C E 384P. Dynamic Response of Structures.**

Single and multidegree-of-freedom systems; dynamic load factors, response to harmonic excitation; damping; modal analysis; direct integration of equations of motion; analysis in time and frequency domains; application to earthquake, wind, wave, and traffic loadings. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Civil Engineering 381P or consent of instructor.

### **C E 384R. Earthquake Engineering.**

Earthquake characteristics; seismic loads; elastic and inelastic response; analysis and design of buildings for earthquakes. Three lecture hours

a week for one semester. Prerequisite: Graduate standing, and Civil Engineering 384P or consent of instructor.

### **C E 384S. Structural Reliability.**

Load and resistance factors in reliability-based design; first- and second-order reliability methods; Monte Carlo simulation techniques with variance reduction and importance sampling refinements; reliability of systems; fault-tree and event-tree models; inverse reliability procedures; and random fields and stochastic finite element analysis for reliability analysis. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 384T. Blast-Resistant Structural Design.**

Physics of explosions and basic blast phenomenology; structural loading due to blast effects; nonlinear dynamic response of blast-loaded structures; protective design; progressive collapse. Three lecture hours a week for one semester. Civil Engineering 384T and 397 (Topic: Blast-Resistant Structural Design) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **C E 385D. Water Resources Planning and Management.**

Application of engineering economics and operations research to the planning and management of water systems. Major subjects include water supply, water resources management, multi-objective planning, and optimization techniques. Focus on programming skills and implementation of the models using a programming language. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 385G. Transboundary Water Resources.**

Introduction to planning, policy, and development of water resources in the international setting, with emphasis on transboundary situations. Basic concepts of water rights and international law pertaining to transboundary water use and protection; economic analysis and applications to transboundary water resources problems; international development goals and how these relate to water supply and use. Three lecture hours a week for one semester. Civil Engineering 385G and 397 (Topic: Transboundary Water Resources) may not both be counted. Prerequisite: Graduate standing.

### **C E 385J. Hazardous Waste Management.**

Legal and technological approaches to effective and sustainable control of hazardous wastes and contaminated sites, studied through problem evaluation and solution. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Civil Engineering 342 or consent of instructor.

### **C E 385K. Water Quality.**

Analysis of water quality in natural systems and of effects of wastewater discharges. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **Topic 1: Stream, Impoundment, and Estuarine Analysis I.**

Basic physical, chemical, and biological properties of streams, impoundments, estuaries, and coastal waters; methods for analysis of water quality problems. Additional prerequisite: Graduate standing.

#### **Topic 2: Stream, Impoundment, and Estuarine Analysis II.**

Application of methods of analysis to development of a water quality management plan for a water body in Texas. Additional prerequisite: Graduate standing.

**Topic 3: Water Quality Modeling.** Mathematical modeling of water quality, including dissolved oxygen, nutrients, and toxic substances in lakes, reservoirs, rivers, and estuaries. Additional prerequisite: Graduate standing.

**Topic 4: Water Pollution Ecology.** Advanced topics in the application of engineering solutions to ecological problems in freshwater and marine environments.

### **C E 385L. Water and Wastewater Treatment.**

Principles of sustainable treatment of domestic and industrial water, wastewater, and sludges. Three lecture hours or two and one-half lecture hours and one laboratory hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Physical and Chemical Treatment.** Three lecture hours a week for one semester. Additional prerequisite: Civil Engineering 342 or consent of instructor.

**Topic 2: Biological Wastewater Treatment and Sludge Processing.** Three lecture hours a week for one semester. Additional prerequisite: Civil Engineering 342 or consent of instructor.

**Topic 3: Advanced Treatment Processes.** Project-based course addressing advanced topics in treatment process design: alternative designs, computer models, laboratory testing, economics, and least-cost designs. Two and one-half lecture hours and one laboratory hour a week for one semester. Additional prerequisite: Civil Engineering 385L (Topic 1).

### **C E 385M. Unit Operations in Water and Wastewater Treatment.**

Physical, chemical, and biological unit operations for sustainable water and wastewater treatment. One lecture hour and six laboratory hours a week for one semester. Prerequisite: Graduate standing, and Civil Engineering 385L (Topic 1: Physical and Chemical Treatment or Topic 2: Biological Wastewater Treatment and Sludge Processing) or consent of instructor.

### **C E 385N. Industrial Wastewater Treatment.**

Industrial wastewater characteristics; methods of in-plant control; application of various biological, chemical, and physical processes in practical water pollution control systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and credit or registration for Civil Engineering 385L or consent of instructor.

### **C E 385R. Land Treatment of Wastes.**

Principles of the use of land in management of municipal and industrial wastewaters, sludges, and solids; includes problem evaluations. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Civil Engineering 342 or consent of instructor.

### **C E 385S. Stochastic Hydrology.**

Probability and statistics applied to the solution of hydrological problems; extreme event frequency analysis, time series analysis of hydrologic data, autocorrelation and spectral analysis, theory of regionalized variables and applications. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Civil Engineering 311S or an equivalent course in statistical methods.

### **C E 385W. Drinking Water: Treatment and Public Health Issues.**

Fundamentals and applications of drinking water treatment processes, interactions among treatment processes, source water quality, and public health issues. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Civil Engineering 385L (Topic 1: Physical and Chemical Treatment), and consent of instructor.

### **C E 386M. Water Treatment and Wastewater Treatment Plant Design.**

Design of water and wastewater treatment facilities; pumps and hydraulic considerations; design of wastewater collection systems;

design of systems for handling and disposal of residuals. Specific facilities may be selected to meet individual interests. Six hours of lecture and design laboratory a week for one semester, with appropriate field trips to operating facilities. Prerequisite: Graduate standing, and credit or registration for Civil Engineering 385L or consent of instructor.

### **C E 386P. Engineering Fracture Mechanics.**

Application of fracture mechanics to fracture-safe design of metal structures; material behavior and analysis of components containing cracks. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 386R. Inelastic Behavior of Materials.**

Introduction to theories of inelastic behavior; theory of plasticity; applications to materials such as steel, concrete, and soils; implementation of constitutive equations in structural analysis. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 387C. Geoenvironmental Engineering.**

Hydraulic conductivity of soils; clay behavior; compacted clay barriers; unsaturated soil behavior and barriers; geosynthetics and geosynthetic barriers; contaminants and solid waste; liquid drainage layers; stability of landfills; contaminant transport through barriers. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **C E 387G. Engineering Geology.**

Fundamental concepts of geology, including geologic time and plate tectonics. Interactions among earth materials, landforms, and geologic processes across a range of spatial and temporal scales. Emphasizes common interests shared by engineers and geologists, as well as gaps between the disciplines, such as those posed by the geologic vocabulary. Three lecture hours and three hours of laboratory or fieldwork a week for one semester. Prerequisite: Graduate standing in civil engineering.

### **C E 387L. Soil Mechanics I.**

Three lecture hours a week for one semester; some topics require additional hours. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Consolidation and Shearing Properties of Soils.** Theoretical and experimental studies of the consolidation and shearing properties of both saturated and unsaturated soils. Three lecture hours and three laboratory hours a week for one semester.

**Topic 2: Foundation Engineering.** Bearing capacity, design of piers and pile foundations.

### **C E 387M. Soil Mechanics II.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Stability of Earth Slopes.** Development and application of limit equilibrium procedures, including effects of seepage, rapid drawdown, and seismic loading and reinforcement for stability analysis of natural and constructed slopes.

### **C E 387R. Soil Mechanics III.**

Three hours a week for one semester; some topics may require additional hours. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Soil and Rock Dynamics.** Wave propagation in soil and rock, foundation vibration and isolation, dynamic behavior of soil. Five hours a week for one semester, including lecture and laboratory.

**Topic 4: Earth Retaining Structures.** Types of earth retaining systems, earth pressure theory; gravity, semi-gravity, and modular walls; reinforcing elements; mechanically stabilized earth walls and reinforced soil slopes; soil nail walls; sheet pile walls, drilled shaft walls and anchored walls; advances in soil reinforcement.

**Topic 5: Geotechnical Earthquake Engineering.** Application of soil dynamics to earthquake engineering; influence of soil conditions on ground motion characteristics; evaluation of site response using wave propagation techniques; liquefaction of soils; liquefaction mitigation; seismic response of earth structures; seismic slope stability.

#### **C E 387T. Decision, Risk, and Reliability.**

Principles and theory for modeling uncertainty in civil engineering, analyzing how uncertainties affect performance, and developing rational bases for design and decision making under uncertain conditions. Three lecture hours a week for one semester. Prerequisite: Graduate standing and an introductory course in probability and statistics.

#### **C E 388H. Climate Change Mitigation.**

Explore the large-scale solutions to climate change systematically. Examine the fundamentals of climate science, mitigation of climate change through transformation of energy supply and end-use, geoengineering, and industrial carbon management. Discuss the social and economic context for engineered solutions. Three lecture hours a week for one semester. Civil Engineering 388H and 397 (Topic: Climate Change Mitigation) may not both be counted. Prerequisite: Graduate standing.

#### **C E 388N. Engineering and Management of Municipal and Industrial Residuals.**

Characterization and collection of solid wastes; biological, chemical, and physical principles and integrated systems applicable to the treatment and disposal of municipal and industrial residuals. Two lecture hours and three discussion hours a week for one semester, with occasional field trips. Prerequisite: Graduate standing in civil or environmental engineering, or graduate standing and consent of instructor.

#### **C E 389C. Advanced Technical Communication for Engineers.**

Advanced work in theory and practice of communicating research and design results to a variety of audiences, in print, orally, and through multimedia. Students use their own work and writing projects as the material to communicate. Three hours a week for one semester, including lecture and laboratory. Prerequisite: Graduate standing.

#### **C E 389H. HVAC Design.**

Design of heating, ventilation, and air-conditioning systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing and three of the following courses: Architectural Engineering 346N, Civil Engineering 319F, Mechanical Engineering 320, 326, 330, 339.

#### **C E 389T. Indoor Air Quality: Transport and Control.**

Transport and control of indoor pollutants. Includes particulate removal and pollutant transport into and within indoor environments. Three lecture hours a week for one semester. Prerequisite: Graduate standing in architectural or civil engineering.

#### **C E 389V. Modeling of Air and Pollutant Flows in Buildings.**

Same as Architectural Engineering 389V. Restricted to architectural engineering or civil engineering graduate students. Fundamentals of indoor airflow modeling, use of computational fluid dynamics (CFD) for air quality and thermal comfort analyses, application of CFD for analysis of air velocity, temperature, humidity, and contaminant distributions with different ventilation systems. Three lecture hours a week for one semester. Only one of the following may be counted: Architectural

Engineering 383 (Topic: Modeling of Air and Pollutant Flows in Buildings), 389V, Civil Engineering 389V, 397 (Topic: Modeling of Air and Pollutant Flows in Buildings). Prerequisite: Graduate standing; for architectural engineering and civil engineering majors, three semester hours of coursework in fluid dynamics; for others, consent of instructor.

#### **C E 390J. Engineering Microbiology.**

Fundamentals of microbiology and biochemistry as applied to environmental pollution and sustainable treatment processes, energetics and kinetics of microbial growth, and biological fate of pollutants; introduction to laboratory techniques. Three hours a week for one semester, including lecture and laboratory. Prerequisite: Graduate standing.

#### **C E 390L. Environmental Analysis.**

Advanced analytical procedures for the sampling, monitoring, and analyses of air, liquid, and other wastes. Six hours of lecture and laboratory a week for one semester. Prerequisite: Graduate standing, one year of chemistry, and consent of instructor.

#### **C E 390N. Water Pollution Chemistry.**

Advanced topics in the application of engineering solutions to chemical problems in freshwater and marine environments. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **C E 390P. Environmental Organic Chemistry.**

Advanced subjects in the environmental chemistry of organic contaminants in groundwater, soil, and air systems; includes sustainable chemistry. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **C E 390Q. Chemical Dynamics in the Environment.**

Environmental chemodynamics: interphase equilibrium, reactions, transport processes, and related models for anthropogenic substances across natural interfaces (air-water-sediment-soil) and associated boundary regions. Three lecture hours a week for one semester. Civil Engineering 390Q and 397 (Topic: Chemodynamics) may not both be counted. Prerequisite: Graduate standing.

#### **C E 390R. Engineering Microbiology Applications.**

Application of microbiology and molecular biology tools for monitoring environmental systems and biological treatment processes. Six hours of lecture and laboratory a week for one semester. Civil Engineering 390R and 397 (Topic: Engineering Microbiology Applications) may not both be counted. Prerequisite: Graduate standing and Civil Engineering 390J.

#### **C E 391C. Analysis and Design of Transportation Systems I.**

Introduction to conceptual, methodological, and mathematical foundations of analysis and design of transportation services; review of probabilistic modeling; application of discrete choice models to demand analysis. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **C E 391D. Analysis and Design of Transportation Systems II.**

Operations research techniques for modeling system performance and design of transportation services; routing and scheduling problems, network equilibration, and spatially distributed queueing systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **C E 391E. Advances in Transportation Demand Analysis.**

Developments in the econometric and behavioral aspects of demand analysis and forecasting; supply-demand integration; dynamic models. Applications to passenger and freight transportation and other

infrastructure services. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 391F. Advanced Theory of Traffic Flow.**

Relations among traffic variables; distribution functions; single lane and multilane traffic flow; characterization of traffic in cities; kinematic waves; yellow signal dilemma; merging; fuel consumption; emissions; and special topics. Emphasis on the interplay among theory, experimentation, and observation. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 391H. Urban Transportation Planning.**

Interrelationship of transportation and the urban environment; methodologies for planning multimodal transportation systems and developing feasible alternatives; emphasis on developing insight into the transportation problem and the planning process rather than on solving specific problems of limited scope. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 391J. Transportation Planning: Methodology and Techniques.**

Analysis of a wide range of planning studies to establish the logic and foundation for the transportation planning process. Emphasis on techniques of estimation and forecasting population, economic activity, land use, and mobility patterns; determination of goals and objectives; decision making; economic analysis; and alternative evaluation. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 391L. Advanced Traffic Engineering.**

Characterization and analysis of arterial street and freeway traffic operations using theoretical and experimental techniques, especially computer simulation. Introduction to the most current analysis and optimization tools for control device design and implementation. Three lecture hours and three hours of supervised work a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 391M. Advanced Geometric Design.**

Geometric design of highways and guideways, including topics on levels of service, alignment, vehicle operations, intersection and interchange design, roadside design, lighting, and economics. Three lecture hours and one hour of supervised laboratory work a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 391N. Engineering System Evaluation and Decision Making.**

Advanced methods for selection of transportation and other infrastructure systems in the presence of multiple criteria, multiple decision makers, and uncertainty. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 391P. Highway and Airport Pavement Systems.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Theory and Behavior of Pavements.** Theories of pavement behavior and concepts of pavement design.

**Topic 2: Design and Performance of Pavements.** Pavement performance evaluation and the application of theory to the design of pavements.

**Topic 3: Pavement Management Systems.** Defines the interrelationships among all aspects of pavement technology. Application of computer-based management methodology.

### **C E 391Q. Bituminous Materials.**

Design and use of asphalt mixtures; chemical, physical, and rheological properties of asphalt; and practical applications in highways, airports, and other construction. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 391R. Airport Design and Operation.**

Aircraft characteristics, site selection, airport configuration, capacity, terminal design, traffic control, and interfacing with other transportation modes. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 391T. Contemporary Transportation Issues.**

Consideration, analysis, and evaluation of recent transportation-related innovations and developments. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **C E 391W. Transportation Systems Operations and Control.**

Concepts and advanced methods for the design of control strategies for transportation systems operations, including highway traffic systems (signalized street networks and freeways), transit systems, and private carrier operations, including airlines. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 392C. Transportation Network Analysis.**

Transportation network analysis focusing on planning and optimization using static traffic assignment models. Subjects include deterministic and stochastic equilibrium, traditional and modern solution methods, shortest path algorithms, combined models, and basic nonlinear programming skills. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 392D. Dynamic Traffic Assignment.**

Theory and practice of dynamic traffic assignment as an evolving field. Subjects include basic flow models (point queues, cell transmission model, and link transmission model), time-dependent shortest path algorithms, equilibrium algorithms (convex combinations, simplicial decomposition, and gradient methods), and case studies from practice. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 392E. Acquisition and Analysis of Transportation Data.**

Methods and technologies for the acquisition and analysis of data on various aspects of transportation systems, including properties of different data sources and types; stated versus revealed preferences; traffic sensing; survey design; sampling strategies; probabilistic methods of data analysis; overview of statistical methods and various regression models, including random-utility, ordered-choice, simultaneous-equations, time-series, and spatial econometric models. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 392L. Experimental Measurements of Soil Properties.**

Theoretical and practical knowledge of transducers, sensors, and data acquisition systems for soil and general laboratory testing. Experimental techniques used to characterize properties of geomaterials. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **C E 392M. Public Transportation Engineering.**

Introduction to public transportation systems, including demand forecasting, operations, and design. Includes statistical methods, driver and vehicle scheduling, algorithms, and survey sampling techniques.

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 392N. Topics in Infrastructure Systems.**

Management principles, modeling techniques, computer applications, and emerging technologies for the analysis, engineering, and management of infrastructure systems. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Infrastructure Systems Management.** Concepts, principles, theories, and models for infrastructure management, with emphasis on civil infrastructure systems.

**Topic 2: Reliability and Maintainability of Infrastructure Systems.** Theory of reliability, maintainability, and availability and its application for the analysis of infrastructure systems. Civil Engineering 392N (Topic 2) and 397 (Topic: Reliability and Maintainability of Infrastructure Systems) may not both be counted.

**Topic 3: Intelligent Infrastructure Systems.** Concepts, frameworks, and models of intelligent infrastructure systems, with emphasis on the application of emerging technologies and advanced modeling techniques.

### **C E 392P. Sustainable Pavement Engineering.**

Pavement design; back calculation; use of locally available materials for pavement construction; recycled asphalt pavements and shingles; warm mix and cold mix asphalt; industrial by-products and waste incorporated in pavement materials; emerging technologies for sustainable pavement design and pavement management. Three lecture hours a week for one semester. Civil Engineering 392P and 397 (Topic: Sustainable Pavement Engineering) may not both be counted. Prerequisite: Graduate standing, and Civil Engineering 366K, 367P, 391P (Topic 2: Design and Performance of Pavements), 391Q, or consent of instructor.

### **C E 392R. Discrete Choice Theory and Modeling.**

Methods and statistics of model estimation, with emphasis on maximum-likelihood; individual choice theory; binary choice models; unordered multinomial and multidimensional choice models; sampling theory and sample design; ordered models and aggregate prediction with choice models; introduction to advanced concepts, such as unobserved population heterogeneity, joint slated preference and revealed preference modeling, and longitudinal choice analysis. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and Civil Engineering 391J or consent of instructor.

### **C E 392S. Intermodal Transportation Systems.**

Strategic planning of intermodal freight transportation systems (infrastructure and rolling stock). Freight logistics, intermodal technology, and intermodal terminal operations. Intermodal freight transportation policy, planning, and operational systems and programs. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 392T. Transport Economics.**

Application of economic theory and principles to transportation systems analysis and evaluation. Subjects include individual demand decisions, optimal private and public transport supply (including pricing strategies and input demands), market imperfections and externalities, and welfare-based transport policy. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 392U. Transportation Systems Management.**

Evolving concepts of transportation agency organization, management, and delivery of transportation programs, products, and services. Separation versus integration of transport policymaking and service

delivery functions; emerging models for delivering programs and services, such as outsourcing, privatization, and state-owned enterprises; review of national and international experiences with innovative approaches and the benefits and costs associated with change. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C E 392V. Methods to Characterize Bituminous Materials.**

Introduction to the design and performance prediction of asphalt mixtures. Experimental and computational methods used to characterize the chemical and mechanical properties and performance of bituminous materials at several different length scales. Includes computational models. Three lecture hours a week for one semester. Civil Engineering 392V and 397 (Topic: Characterization of Bituminous Materials) may not both be counted. Prerequisite: Graduate standing, and Civil Engineering 366K, 391Q, or consent of instructor.

### **C E 392W. Characterization of Viscoelastic Materials.**

Test methods and physical models used to characterize the mechanical response of linear and nonlinear viscoelastic materials. Use of correspondence principles to solve simple boundary value problems for linear viscoelastic materials. Introductory topics on modeling damage and nonlinear response of viscoelastic materials. Three lecture hours a week for one semester. Civil Engineering 392W and 397 (Topic: Characterization of Viscoelastic Materials) may not both be counted. Prerequisite: Graduate standing.

### **C E 393. Advanced Concrete Materials.**

Comprehensive coverage of Portland cement concrete materials. Topics include cement and aggregate properties, chemical and mineral admixtures, concrete microstructure and the effects of chemical and mechanical properties, durability issues, concrete construction, and special concretes. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and a materials course.

### **C E 393C. Experimental Methods in Cement Chemistry.**

Cement chemistry, hydration, and microstructural formation; analytical techniques used in the investigation of cement and concrete. Three lecture hours a week for one semester. Civil Engineering 393C and 397 (Topic: Experimental Methods in Cement Chemistry) may not both be counted. Prerequisite: Graduate standing, Civil Engineering 351, 393, or the equivalent, and consent of instructor.

### **C E 393D. Concrete Durability.**

Examine comprehensive coverage of durability issues affecting portland cement concrete. Includes transport properties (e.g., diffusion, osmosis, sorption, etc.), alkali-silica reaction, external sulfate attack, delayed ettringite formation, corrosion of reinforcing steel, freezing and thawing, and salt scaling. Explore, for each durability issue, the underlying mechanism are presented, along with methods for preventing such distress in new concrete construction. Three lecture hours a week for one semester. Civil Engineering 393D and 397 (Topic: Concrete Durability) may not both be counted. Prerequisite: Civil Engineering 393 or equivalent full-semester course in concrete materials, and consent of instructor.

### **C E 393M. Environmental Engineering Research Seminar.**

Presentation and discussion of environmental topics in surface water, groundwater, air resources, and land resources. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **C E 393N. Novel Structural Materials.**

Material selection criteria, including mechanical and environmental factors; selected case studies of emerging materials, including derivation of properties and potential applications. Three lecture hours a week for one semester. Civil Engineering 393N and 397 (Topic: Novel Structural Materials) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **C E 393S. Structural Engineering Research Seminar.**

The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **C E 394. Interaction of Soils and Structures.**

Beams on foundation, laterally loaded piles, applications of the finite-element method, beam-columns with nonlinear soil support, and behavior of pile groups. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and a course in soil mechanics or consent of instructor.

**Topic 1: Dynamic Soil-Structure Interaction.** Fundamentals of wave propagation; determination of foundation stiffnesses; mat foundations on the surface of a layered soil; embedded foundations; pile foundations; effect of foundation conditions on dynamic response of structures to applied loads (machine foundations) and to seismic excitation. Additional prerequisite: Consent of instructor.

### **C E 394K. Engineering Hydrology.**

Three lecture hours a week for one semester. With consent of instructor, any topic may be repeated for credit. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; and a basic course in hydrology and in differential equations, or consent of instructor.

**Topic 1: Groundwater Pollution and Transport.** Groundwater flow and hydrogeologic modeling, sources of contamination, multiphase partitioning, advection-dispersion transport and modeling.

**Topic 2: Surface Water.** Rainfall runoff processes, hydrograph theory, linear and nonlinear hydrologic system models, hydrologic and hydraulic streamflow routing, rainfall and flood flow frequency analysis, watershed models.

**Topic 3: Geographic Information Systems in Water Resources.** Principles of geographic information systems, hydrology, and database management systems applied to water resources problems. Additional prerequisite: Consent of instructor.

### **C E 394M. Advanced Analyses in Geotechnical Engineering.**

Development and application of linear and nonlinear finite element procedures for solution of geotechnical engineering problems related to embankments, excavations, static soil-structure interaction, and seepage. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C E 395P. Project Automation.**

Three lecture hours a week for one semester. Some topics may require additional hours; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Advanced CAD Procedures.** Same as Architectural Engineering 395P (Topic 1: Advanced CAD Procedures). Introduction to advanced CAD procedures and CAD systems, and their influence on building design and construction. Nine hours of lecture and laboratory a week for one semester. Additional prerequisite: An introductory CAD course.

**Topic 2: Introduction to Construction Automation and Integration.** Same as Architectural Engineering 395P (Topic 2: Introduction to Construction Automation and Integration). Construction automation

and integration activities, methods for opportunity identification and financial analysis of systems, and tools from several disciplines that are used in construction automation and integration; students prepare a project that synthesizes this information.

**Topic 3: Design of Automated Construction Systems.** The elements of construction systems, including mechanisms, sensors, and control; systems design methods and concerns. Students develop an individual design project.

**Topic 4: Sensing in Civil Engineering.** Sensor types and properties, data acquisition, sensor data analysis, sensor fusion, and classes of civil engineering applications. Students are encouraged to work on projects related to their research areas.

### **C E 395Q. Project Controls.**

Three lecture hours a week for one semester. Some topics require two lecture hours and three laboratory hours a week; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Project Controls.** Fundamentals of planning, scheduling, and cost management on projects. Topics include network scheduling, activity and resource management, cost loading and cost control, and computer tools used for project controls, such as schedule simulation and three-dimensional and four-dimensional CAD.

**Topic 2: Project Production Systems.** Advanced topics in project controls, including supply chain management, procurement, interorganizational controls and incentives, process modeling, and simulation.

**Topic 5: Financial Management for Engineering and Construction Firms.** Introduction to financial, managerial, and tax accounting concepts, as well as corporate finance and strategy as they relate to engineering and construction firms. Emphasis is on content, interpretation, and uses of various accounting reports and financial statements in general, as well as those specific to engineering and construction industries. Topics include determination and reporting of net income methods and financial position unique to engineering and construction firms, and theories underlying business financial statements, as well as the consideration of managerial accounting and financial management topics that cover the planning and controlling of business operations and how financial management impacts a company's overall business success. Civil Engineering 395Q (Topic 5) and 397 (Topic: Financial Management for Engineering and Construction Firms) may not both be counted.

### **C E 395R. Project Information Systems.**

Three lecture hours a week for one semester; some topics require additional hours. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Project Information Management Systems.** Information systems design and management concepts and their implementation in construction projects. Data acquisition, transmission, and storage; database management systems and information systems design.

**Topic 3: Decision and Risk Analysis.** Fundamentals of decision analysis and risk assessment; construction engineering/project management applications in decision analysis; methods of risk management; overview of project insurance.

**Topic 4: Metrics.** Measurement systems and benchmarking approaches for many aspects of construction projects. Included are measurement systems for design effectiveness, construction productivity, safety, cost and schedule controls, and overall industry statistics.

**Topic 5: Data Mining.** Same as Architectural Engineering 395R (Topic 5: Data Mining). Fundamentals of data mining. Techniques for data classification, prediction, clustering, and association rules mining.

Data mining as an advanced data analysis method in engineering and construction. Implementation issues.

**Topic 6: Quantitative Methods for Project Analysis.** Practical methods of data analysis for evaluating project performance metrics. Includes quantitative methods for solving everyday problems such as bid selection, capital budgeting, assignment of resources, equipment replacement analysis, and the optimization of capital structure. Techniques for developing models under conditions of risk using Microsoft Excel and add-ins such as At Risk. Civil Engineering 395R (Topic 6) and 397 (Topic: Quantitative Methods for Project Analysis) may not both be counted.

**Topic 7: Building Information Modeling for Capital Projects.** Building information models in plan execution for a building construction project. Focus on implementation of building information modeling concepts throughout the lifecycle of a building, from planning and design to construction and operations. Civil Engineering 395R (Topic 7) and 397 (Topic: Building Information Modeling for Capital Projects) may not both be counted.

### C E 395S. Project Organization.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Human Resources Project Management.** Evaluation of individual, group, and organizational behavior in construction work. In-depth study of communication, decision making, and the relationship between controls and behavior.

**Topic 2: Construction Productivity.** Construction productivity improvement by group field studies. In-depth study of the way overtime, changes, weather, and staffing levels influence productivity. Industrial engineering techniques are applied to the construction environment to improve the use of equipment and human and material resources.

**Topic 4: Project Management.** Same as Architectural Engineering 395S (Topic 4: Project Management). Overall aspects of project and portfolio management from inception to successful operation: project selection and feasibility, contracting methods, project scheduling, cost control systems, project communications, project scope and quality management, human resource management, partner selection and management, project leadership, project closeout, and global project management.

### C E 395T. Project Technology.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 3: Heavy Civil Construction.** Methods and materials in heavy civil construction; earthwork, concrete, structural steel, and deep foundations; equipment selection, configuration, productivity, and safety issues; site and craft planning, environmental issues, and optimization modeling; and field studies.

**Topic 6: Value Management Processes I.** Industry value management processes, including value engineering and life cycle costing, process simplification, function analysis concept development, design to capacity, constructability, modularization and preassembly, and design effectiveness.

**Topic 7: Value Management Processes II.** Industry value management processes, including mechanical reliability modeling, predictive maintenance, design for maintainability, waste minimization and pollution prevention, sustainable design and construction, planning for startup, lean construction, postoccupancy evaluation, and knowledge management and lessons learned systems.

**Topic 8: Industrial Construction.** Methods and materials in industrial construction; heavy lifts, mechanical equipment, process

piping, electrical, and instrumentation work; equipment selection, configuration, productivity, and safety issues; preassembly, modularization, and work planning in the industrial environment; and field studies.

### C E 395U. General Topics in Construction Engineering and Project Management.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Front-End and Contractor Planning.** Principles and applications of advanced project planning techniques for capital facility owners and contractors. Effective owner front-end planning of capital facilities, including team alignment, and preproject planning processes and tools. Contractor preconstruction planning, including team selection, scope and budget review, procurement, strategic sequencing, and planning assessment tools.

**Topic 3: Advanced Legal Concepts.** Same as Architectural Engineering 395U (Topic 3: Advanced Legal Concepts). Contracts, documentation requirements, claims avoidance, and settlement of claims by alternative dispute resolution. Students conduct and present in-depth studies of the most frequent causes of claims (delay, disruption, acceleration, soil conditions, and changes) and consider the way the court establishes causation and determines damages.

**Topic 4: Construction Safety.** Causes and effects of construction safety incidents, proactive preventative strategies, and tactics. Civil Engineering 395U (Topic 4) and 397 (Topic: Construction Safety Management) may not both be counted.

### C E 395V. Seminar/Conference Course in Construction Engineering and Project Management.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Doctoral Research Methods Seminar.** Construction research methods seminar, including concepts and practice of research in construction engineering and management. Research methodologies and steps in the research process, including review and framing research questions. Students develop and critique a research proposal.

**Topic 2: Conference Course.**

**Topic 3: Construction Industry Seminar.** Construction industry issues and best practices, such as front-end planning and zero accident techniques, developed by the Construction Industry Institute (CII). Guest lecturers include CII management staff and visiting industry leaders. Emphasis on implementation of proven practices on projects.

### C E 396L. Air Resources Engineering.

Sources, transport, fate, impacts, characteristics, and control of air contaminants; source control and prevention; urban air quality; occupational and residential indoor air quality. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Air Pollution Chemistry.** Classification, transport, transformation, deposition, sampling, and analysis of particulate and gaseous air pollutants in urban, regional, and global-scale systems. Emphasis on sustainable engineering.

**Topic 3: Air Pollution Control.** Design of air pollution control systems for stationary sources. Technical, regulatory, and economic fundamentals related to the control of gaseous and particulate emissions.

**Topic 4: Indoor Air Quality: Physics and Chemistry.** Sources, transport, and fate of indoor air pollutants. Interactions between indoor

pollutants and indoor materials. Indoor air chemistry. Human exposure to pollutants in indoor environments.

**Topic 5: Atmospheric Transport and Dispersion Modeling.**

Mathematical models of contaminant transport in the atmosphere; atmospheric turbulence and air pollution meteorology; Gaussian plume, gradient transport, and higher-order closure models; theoretical development and practical applications to engineering problems.

**Topic 6: Human Exposure to Indoor Air Pollution.** Human exposure to air pollution in the built environment, including the effects of sustainable building design on human exposure to toxic air pollutants. Subjects may include inhalation intake fractions for risk calculations and comparisons of sources of air pollution, transmission of airborne infectious disease, pharmacokinetic modeling, and case studies involving several important air pollutants. Civil Engineering 396L (Topic 6) and 397 (Topic: Human Exposure to Toxins) may not both be counted.

**C E 396M. Advanced Topics in Atmospheric Science.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in a natural science or engineering.

**Topic 1: General Topics.**

**Topic 2: Air Pollution Meteorology.** Basic meteorology applied to air pollution; diffusion of conservative and nonconservative pollutants; plume rise; air pollution models.

**C E 197, 297, 397. Special Studies in Civil Engineering.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; some topics require additional hours. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; consent of instructor; additional prerequisites vary with the topic.

**Topic 4: Freight Transportation.** Topics include review of transport systems analysis; shipper objectives; demand and supply modeling; freight flow data; network analysis; truck size and weight policies; finance.

**Topic 6: Traffic Science Seminar.** Topics range from fundamentals of vehicular traffic science to relevant methodologies in physics, applied mathematics, and operational science.

**Topic 14: Design of Wood Members and Systems.** Design and behavior of solid wood and glued-laminated wood structural members; light-frame and heavy timber systems, including trusses and arches. Additional prerequisite: Consent of instructor.

**Topic 16: Evaluation, Materials, and Techniques for Concrete Repair.** Causes of distress, evaluation methods, repair materials, repair techniques, and quality control methods for repair of concrete. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with one and one-half additional hours a week for guest speakers. Architectural Engineering 383 (Topic 7) and Civil Engineering 197, 297, 397 (Topic 16) may not both be counted.

**Topic 17: Air Sampling and Analysis.** Collection and analysis of air samples for gaseous and particulate contaminants. Gas flow rate and calibration techniques, stationary source sampling and analysis, indoor air sampling, ozone and NO<sub>x</sub> ambient air monitoring.

**Topic 20: Computer Methods for Civil Engineers.** Essential methods for computer-aided problem solving in transportation and other civil engineering areas. Topics may include computer operating systems concepts; the Internet and World Wide Web site design; advanced programming with C programming language; data structures; file manipulation and management; Monte Carlo simulation techniques; interfacing with spreadsheets, SQL databases, and computer-aided design packages; introduction to Geographic Information Systems. Team programming is emphasized.

**Topic 22: Intelligent Transportation Systems Seminar.** Introduction to Intelligent Transportation Systems (ITS) concepts, evolution, and current initiatives. Program evolution from Mobility 2000, through IVHS and strategic planning activities by the Department of Transportation and ITS America, to current operational tests and deployment projects.

**Topic 32: Hydrodynamics of Propulsors and Dynamic Positioning Systems.** Hydrofoil and lifting surface theory, actuator disk and lifting line theory, vortex-lattice and panel methods, blade design techniques, propulsor-inflow and propulsor-hull interaction, unsteady blade and shaft forces, and modeling of sheet cavitation.

**Topic 35: Introduction to Structural Mechanics.** Discussion of force and stress, vectors and tensors; equilibrium; displacement and deformation; compatibility; constitutive equations, with examples from linear elasticity, linear viscoelasticity, and plasticity; principle of virtual work; elastic structures, principle of minimum potential energy, reciprocity theorem; critical equilibrium, stability; linear theories of beams, plates, and shells.

**Topic 50: Water Resources Development and Policies.** Analysis of water resources projects, particularly international water projects, with emphasis on engineering and planning considerations and their relation to governmental policies.

**Topic 54: Water Pollution Control.** The application and evaluation of new concepts in water pollution abatement and advanced water and wastewater treatment.

**Topic 56: Air Pollution Control.** Evaluation of new theoretical approaches to air pollution control.

**Topic 78: Design of Offshore Structures.** Selection of design storm; wave forces on structures; preliminary analysis of steel jacket platforms; joint design; fatigue considerations; foundation design; dynamic effects and responses.

**C E 197C, 297C, 397C, 697C. Master's Research.**

Independent research. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of adviser.

**C E 197D, 297D, 397D, 697D. Dissertation Research.**

Independent research. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of adviser.

**C E 397F. Forensic Engineering: Materials and Structures.**

Same as Architectural Engineering 383 (Topic 4: Forensic Engineering: Materials and Structures). Methods of forensic analysis; role of the expert witness; methods of dispute resolution; case studies; term project. Two lecture hours a week for one semester, with three laboratory hours a week for presentation of case studies. Prerequisite: Graduate standing and consent of instructor.

**C E 397K. Stability of Structures.**

Stability as it relates to actual behavior and design; elastic and inelastic theories; evaluation of specifications; columns, beams, and frames. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**C E 397L. Advanced Structural Metals.**

Elastic and inelastic design methods for steel members, connections, and structures; torsion of open and closed sections, welding, plate buckling, and column stability; bracing design. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Civil Engineering 335, and consent of instructor.

### **C E 397N. Nondestructive Testing Techniques.**

Basic signal processing knowledge; introduction to wave propagation theory; nondestructive testing (NDT) principles and applications to steel structures; evaluation of concrete structures and foundations; NDT methods selection; emerging technologies. Three lecture hours a week for one semester. Civil Engineering 397N and 397 (Topic: Nondestructive Testing Techniques in Civil Engineering) may not both be counted. Prerequisite: Graduate standing.

### **C E 197Q, 297Q, 397Q, 697Q. Special Independent Studies in Civil Engineering.**

Independent study. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of adviser.

### **C E 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in civil engineering and consent of the graduate adviser; for 698B, Civil Engineering 698A.

### **C E 398D. Departmental Report.**

Preparation of a report to fulfill the requirement for the master's degree under the departmental report option. Individual instruction. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in civil engineering and consent of the supervising professor and the graduate adviser.

### **C E 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the Master of Science in Engineering degree under the Graduate School report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in civil engineering and consent of the supervising professor and the graduate adviser.

### **C E 398T. Supervised Teaching in Civil Engineering.**

Special training in teaching methods and procedures for civil engineering courses, including laboratory courses; the development of new material and methods to update present courses. Three lecture hours a week for one semester. Prerequisite: Graduate standing in civil engineering and appointment as a teaching assistant.

### **C E 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Classical Civilization Courses**

## **Classical Civilization: C C**

### **Lower-Division Courses**

#### **C C 301. Introduction to Ancient Greece.**

Same as Core Texts and Ideas 301G. Greatness of Greece as reflected in Greek history, literature, philosophy, art, religion, and politics. No knowledge of Greek is required. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 301, Core Texts and Ideas 310 (Topic: Introduction to Ancient Greece), 301G.

#### **C C 302. Introduction to Ancient Rome.**

Survey of the highlights and the influence of Roman civilization. No knowledge of Latin is required. Three class hours a week for one semester.

#### **C C 303. Introduction to Classical Mythology.**

Survey of major Greek and Roman myths and their influence on literature, art, and music. Three class hours a week for one semester. Classical Civilization 303 and 352 may not both be counted.

#### **C C 304C. Topics in the Ancient World.**

An introductory survey of the highlights of Greek and Roman civilization and early Christianity. No knowledge of Greek or Latin is required. Three lecture hours a week for one semester. Classical Civilization 304C and 348 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

##### **Topic 2: Paganism to Christianity: An Introduction.**

**Topic 3: Introduction to Ancient Egypt.** Same as African and African Diaspora Studies 315J. A survey of the language, culture, and history of Egypt from the prehistorical period (13,000 BC) to the New Kingdom (1069 BC). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315J, 317C (Topic: Introduction to Ancient Egypt), 317C (Topic 5), Classical Civilization 304C (Topic 3).

**Topic 4: Greece and Rome: Film and Reality.** Key events and personalities of ancient Greece and Rome and their treatment in major European and American films. Only one of the following may be counted: Classical Civilization 304C (Topic: Greece and Rome: Film and Reality), 304C (Topic 4), European Studies 307 (Topic: Greece and Rome: Film and Reality).

**Topic 6: Ancient Philosophy.** Same as Philosophy 301K. Primarily for lower-division students. An introduction to the philosophical achievements of the ancient world, concentrating on Plato and Aristotle. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Classical Civilization 304C (Topic: Ancient Philosophy), 304C (Topic 6), Philosophy 301K.

#### **C C 304D. Classical Mythology and the Occult.**

Explore the background for the mythologies of Egypt, Greece, and Rome, and areas of occult practice. Three lecture hours a week for one semester. Classical Civilization 304C (Topic: Classical Mythology & Occult) and 304D may not both be counted.

#### **C C 304E. Introduction to the New Testament.**

Same as Core Texts and Ideas 305N and Religious Studies 315N. Examines representative examples of the texts found in the Christian New Testament and selected noncanonical writings. Focuses on historical setting and systematic methods of interpretation. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 304C (Topic: Introduction to the New Testament), 304E, Core Texts and Ideas 305N, 310 (Topic: Introduction to the New Testament), Religious Studies 315N.

#### **C C 304F. Introduction to Classical Literature.**

Explore the literature of ancient Greece and Rome, its relationship to other literatures and arts, and the main current approaches to research in the field. Three lecture hours a week for one semester. Classical Civilization 304F and 348 (Topic: Intro to Classical Lit) may not both be counted.

### **C C 306. Introduction to the Latin and Greek Element in English.**

The systematic study of the Latin and Greek elements in the English vocabulary with a view to increasing the student's facility and authority in English. No knowledge of Greek or Latin is required. Three class hours a week for one semester.

### **C C 306M. Introduction to Medical and Scientific Terminology.**

A systematic study of medical and scientific terminology based on Greek and Latin roots. No knowledge of Greek or Latin is required. Three lecture hours a week for one semester. Classical Civilization 306M and 336M may not both be counted.

### **C C 307C. Introduction to Greek Archaeology.**

A survey of the artifacts, monuments, and sites of ancient Greece, and their value for documenting Greek religious, social, and cultural history. No knowledge of Greek is required. Three lecture hours a week for one semester.

### **C C 307D. Introduction to Roman Archaeology.**

A survey of the artifacts, monuments, and sites of ancient Rome, and their value for documenting Roman religious, social, and cultural history. No knowledge of Latin is required. Three lecture hours a week for one semester.

### **C C 317. Classical Archaeology: Methods and Approaches.**

An overview of the history of classical archaeology and its methods and approaches. Focuses on case studies of major sites and their excavation and interpretation. No knowledge of Greek or Latin is required. Three lecture hours a week for one semester. Prerequisite: One of the following courses: Ancient History and Classical Civilization 319 (Topic 1: The Ancient Mediterranean World), Art History 302, Classical Civilization 301, 302, 307C, 307D, 318, 319D, History 319D, Religious Studies 318.

### **C C 318. The Rise of Christianity.**

Same as Jewish Studies 306E and Religious Studies 318. Introduction to the origins and development of Christianity. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 318, Jewish Studies 306E, 311 (Topic: The Rise of Christianity), 311 (Topic 3), Religious Studies 318.

### **C C 319D. The Ancient Mediterranean World.**

Same as Ancient History and Classical Civilization 319D and History 319D. Survey of the ancient Mediterranean from ca. 3000 BC to AD 476. Focus on the development of ideas and institutions in the Greek and Roman worlds and on the active cultural exchange among the diverse civilizations of the broader region that shaped Greek and Roman history and cultural identity. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 319 (Topic 1), 319D, European Studies 301 (Topic: Ancient Mediterranean World), 306 (Topic: Ancient Mediterranean World), Middle Eastern Studies 310 (Topic: Ancient Mediterranean World), Classical Civilizations 319D, History 319D.

### **C C 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Classical Civilization.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **C C 322C. Ancient Epic.**

Same as Core Texts and Ideas 340. Explore epic poems of Greece and Rome in translation. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 322 (Topic 4), 322C, Core Texts and Ideas 340, 345 (Topic: Ancient Epic), 345 (Topic 9). Prerequisite: Upper-division standing.

### **C C 322D. The Ancient Historians.**

Same as Ancient History and Classical Civilization 325 (Topic 13), Comparative Literature 323 (Topic 59), and Core Texts and Ideas 329. Examines the main works of ancient historiography, and provides grounding in the central issues with which these works engage. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 13), Classical Civilization 322 (Topic 13), 322D, Comparative Literature 323 (Topic 59), Core Texts and Ideas 329. Prerequisite: Upper-division standing.

### **C C 327. Parageography.**

Survey of the classical and medieval roots of speculative literature, especially those fantasies that involve the creation and presentation of imaginary places, lands, and worlds. No knowledge of Greek or Latin is required. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **C C 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Classical Civilization.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **C C 340. Advanced Topics in Classical Archaeology.**

Detailed study of topics such as architecture, sculpture, or topography of sites. No knowledge of Greek or Latin is required. Three lecture hours a week for one semester. Classical Civilization 307K and 340 may not both be counted unless the topics vary. Classical Civilization 340 and 375 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Greek Archaeology.** Study of the artifacts, monuments, and sites of classical Greece; and their value for documenting ancient Greek religious, social, and cultural history.

**Topic 2: Art and Politics in Imperial Rome.** Same as Art History 327N. Public art of the Roman Empire from Augustus to late antiquity, ca. 31 BC to AD 350. Three lecture hours a week for one semester. Art History 327N and Classical Civilization 340 (Topic 2) may not both be counted. Prerequisite: Upper-division standing.

**Topic 3: Greek Architecture.** The architecture of mainland Greece, Asia Minor, and Sicily from the Dark Ages to the end of the Hellenistic period (ca. 1000 to 30 BC), with emphasis on public buildings, both religious and secular. Prerequisite: For art history and visual art studies majors, Art History 302 and 303; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**Topic 4: Roman Architecture.** Prerequisite: For art history and visual art studies majors, Art History 302 and 303; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**Topic 5: Hellenistic Art and Architecture.** Art of the Hellenistic period from the reign of Alexander the Great to the beginning of the Roman Empire, ca. 336 to 31 BC. Prerequisite: For art history and visual art

studies majors, Art History 302 and 303; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**Topic 6: Food, Health, and Culture in the Ancient Mediterranean.**

Values and social practices in the ancient Mediterranean as expressed by foodways and nutritional choices. Classical Civilization 340 (Topic 6) and 348 (Topic: Food and Drink) may not both be counted.

**Topic 7: Pompeii.** Uses ancient literary texts and various analytical approaches to examine the ancient remains of Pompeii and Herculaneum in context. Classical Civilization 340 (Topic: Pompeii) and 340 (Topic 7) may not both be counted.

**Topic 8: Archaeology of Greek Prehistory.** Same as Ancient History and Classical Civilization 325 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 33), and Middle Eastern Studies 342 (Topic 42). Explores the development of complex societies in ancient Greece by studying its prehistory through archaeology. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Archaeology of Greek Prehistory), 325 (Topic 8), Classical Civilization 340 (Topic: Archaeology of Greek Prehistory), 340 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic: Archaeology of Greek Prehistory), 321 (Topic 33), Middle Eastern Studies 320 (Topic: Archaeology of Greek Prehistory), 342 (Topic: Archaeology of Greek Prehistory), 342 (Topic 42), Persian 372 (Topic: Archaeology of Greek Prehistory).

**Topic 9: Topography and Monuments of Ancient Rome.** Examines the architecture and urban development of Rome from its beginnings until late antiquity. Only one of the following may be counted: Classical Civilization 340 (Topic: Topography and Monuments of Ancient Rome), 340 (Topic 9), European Studies 346 (Topic: Topography and Monuments of Ancient Rome).

**Topic 10: Archaeology, Art, and Analysis of Greco-Roman and Aegean Pottery.** Various approaches to pottery and analytical techniques. Combines lectures with hands-on analysis of sherds, as well as the experimental manufacture of pottery in bonfires. Only one of the following may be counted: Anthropology 324L (Topic: Archaeology, Art and Analysis of Greco-Roman and Aegean Pottery), Classical Civilization 340 (Topic: Archaeology, Art and Analysis of Greco-Roman and Aegean Pottery), 340 (Topic 10).

**Topic 11: Water and the Roman City.** Same as Urban Studies 342C. Examine Roman urban development, design, and adaptation from the perspective of hydrology, hydraulics, and cult and culture. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 340 (Topic: Water and the Roman City), 340 (Topic 11), Urban Studies 342C, 353 (Topic: Water and the Roman City). Additional prerequisite: Upper-division standing.

**Topic 12: The Bronze Age: Kings and Heroes.** Examine the ancient civilizations of the Bronze Age Aegean (3000-1100 BCE): Crete, the Cyclades, Mainland Greece, and Western Anatolia. Three lecture hours a week for one semester. Classical Civilization 340 (Topic: Kings/Heroes-Aegean Bronze Age) and 340 (Topic 12) may not both be counted. Additional prerequisite: Upper-division standing.

### **C C 348. Topics in Ancient Civilization.**

The development and progress of ancient civilization, including history, philosophy, literature, and culture. No knowledge of Greek or Latin is required. Three lecture hours a week for one semester; additional hours may be required for some topics. Classical Civilization 304C and 348 may not both be counted unless the topics vary. Classical Civilization 348 and 375 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 3: Greek Private Life.**

**Topic 4: History of Ancient Philosophy.** Same as Philosophy 329K. Development of Western philosophy from the pre-Socratics to the early Christian era; emphasis on Plato and Aristotle. Three lecture hours and one discussion hour a week for one semester. Classical

Civilization 348 (Topic 4) and Philosophy 329K may not both be counted. Additional prerequisite: Six semester hours of coursework in philosophy.

**Topic 5: Homosexuality in Antiquity.** Prerequisite: Upper-division standing.

**Topic 7: Women in Classical Antiquity.** Same as Women's and Gender Studies 345 (Topic 9: Women in Classical Antiquity).

**Topic 10: Jesus in History and Tradition.** Same as Religious Studies 335. Critical issues, scholarly debates, and historical methods in studying the development of the Christian tradition regarding the figure of Jesus. Prerequisite: Upper-division standing.

**Topic 11: Ancient Egypt.** Same as African and African Diaspora Studies 340G and Middle Eastern Studies 342 (Topic 55). Discussion of Egypt's culture, language, and history from the prehistorical period (13,000 BC) to the New Kingdom (1069 BC). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340G, 374C (Topic: Ancient Egypt), Classical Civilization 348 (Topic 11), Middle Eastern Studies 342 (Topic: Ancient Egypt), 342 (Topic 55). Additional prerequisite: Upper-division standing.

**Topic 13: Gender and Sexuality in Ancient Novel.** Same as Women's and Gender Studies 345 (Topic 53). The major works of prose fiction from Greco-Roman antiquity and how those works relate to the intellectual, cultural, and social currents of late antiquity. Only one of the following may be counted: Classical Civilization 348 (Topic: Gender and Sexuality in Ancient Novel), 348 (Topic 13), Women's and Gender Studies 345 (Topic: Gender and Sexuality in Ancient Novel), 345 (Topic 53).

**Topic 14: Ancient Greek Medicine.** Examines ancient Greek medicine in light of the modern fields of pathology, surgery, pharmacology, therapy, obstetrics, psychology, anatomy, medical science, ethics, and education. Classical Civilization 348 (Topic: Ancient Greek Medicine) and 348 (Topic 14) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 15: Civil War in Rome.** Same as Ancient History and Classical Civilization 325 (Topic 15). Examines the sequence of civil conflict in Rome from the struggle of the orders through the rise of Constantine the Great. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Civil War in Rome), 325 (Topic 15), Classical Civilization 348 (Topic: Civil War in Rome), 348 (Topic 15), History 362G (Topic: Civil War in Rome).

**Topic 16: Moral Agency In Greek Tragedy.** Same as Core Texts and Ideas 341. Subjects include the masterpieces of Greek tragedy, the social and cultural background of the texts, and questions posed by the texts. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic 16), Core Texts and Ideas 341, 345 (Topic 3). Additional prerequisite: Upper-division standing.

**Topic 17: Egyptian Hieroglyphics in Cultural Context.** Same as African and African Diaspora Studies 340P. The vocabulary and grammar of ancient Egypt as a guide to understanding artifacts and monuments from the different periods of Egyptian history, whether in museums, exhibitions, or on site overseas. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340P, 374C (Topic: Egyptian Hieroglyphics in Cultural Context), 374C (Topic 5), Classical Civilization 348 (Topic 17). Additional prerequisite: Upper-division standing.

**Topic 18: Ancient Mediterranean Masculinities.** Same as Women's and Gender Studies 340 (Topic 59). Examines in-depth literary and artistic evidence from multiple ancient cultures to determine how each society defined the distinctively "masculine" role it expected of men and boys and how each society transformed boys into men. Only one of the following may be counted: Classical Civilization 348 (Topic: Ancient Mediterranean Masculinities), 348 (Topic 18), Women's and

Gender Studies 340 (Topic: Ancient Mediterranean Masculinities), 340 (Topic 59).

**Topic 19: Nero.** Nero's life in its larger social and historical context, as well as his reception in the medieval period and beyond. Only one of the following may be counted: Classical Civilization 348 (Topic: Nero), 348 (Topic 19), European Studies 346 (Topic: Nero).

**Topic 20: Roman Philosophy and Science.** Examines the aims, methods, and achievements of philosophy and science in the ancient Roman world.

**Topic 21: Lost Languages and Decipherment.** Same as Ancient History and Classical Civilization 330 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 37), and Middle Eastern Studies 342 (Topic 45). Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Lost Languages & Decipherment), 330 (Topic 4), Classical Civilization 348 (Topic: Lost Languages & Decipherment), 348 (Topic 21), Linguistics 350 (Topic: Lost Languages & Decipherment), Middle Eastern Languages and Cultures 321 (Topic: Lost Languages & Decipherment), 321 (Topic 37), Middle Eastern Studies 342 (Topic: Lost Languages & Decipherment), 342 (Topic 45). Prerequisite: Upper-division standing.

**Topic 23: Values and Leadership in Ancient World.** Same as Core Texts and Ideas 375 (Topic 8). Only one of the following may be counted: Classical Civilization 348 (Topic: Values and Leadership in Ancient World), 348 (Topic 23), Core Texts and Ideas 375 (Topic: Values and Leadership in Ancient World), 375 (Topic 8), History 350L (Topic: Values and Leadership in Ancient World). Additional prerequisite: Upper-division standing.

**Topic 24: Daily Life in Ancient Egypt.** Same as African and African Diaspora Studies 340Q, Middle Eastern Languages and Cultures 321 (Topic 29), and Middle Eastern Studies 342 (Topic 51). Delves into all areas of Egyptian daily life from the dawn of the dynasties to the age of Cleopatra. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340Q, 374C (Topic: Daily Life in Ancient Egypt), 374C (Topic 7), Classical Civilization 348 (Topic: Daily Life in Ancient Egypt), 348 (Topic 24), Middle Eastern Languages and Cultures 321 (Topic: Daily Life in Ancient Egypt), 321 (Topic 29), Middle Eastern Studies 342 (Topic: Daily Life in Ancient Egypt), 342 (Topic 51). Additional prerequisite: Upper-division standing.

### **C C 348C. Hermits, Monks, and Saints in Early Christianity.**

Same as Middle Eastern Studies 342 (Topic 54) and Religious Studies 365D. Examine individual and communal forms of Christian monasticism from the first through fifth centuries CE. Explore the social, economic and religious factors that may have made a life of self-denial attractive to many early Christians and the role of authority in these movements. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Hermits, Monks, and Saints in Early Christianity), 348C, Middle Eastern Studies 342 (Topic: Hermits, Monks, and Saints in Early Christianity), 342 (Topic 54), Religious Studies 365 (Topic: Hermits, Monks, and Saints in Early Christianity), 365D. Prerequisite: Upper-division standing.

### **C C 348D. Interpretation of Jesus' Death and Resurrection.**

Same as Religious Studies 353F. Examine the narratives of Jesus' death and resurrection and their subsequent interpretation over the last two thousand years. Analyze historical Christian and Islamic texts, contemporary debates and cultural context. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Interpretation of Jesus' Death and Resurrection), 348D, Religious Studies 353 (Topic: Interpretation of Jesus' Death and Resurrection), 353F. Prerequisite: Upper-division standing.

### **C C 348E. Plato and His Philosophy.**

Same as Philosophy 329C. Intensive study of selected works by Plato. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Plato), 348E, Philosophy 329C, 329M (Topic: Plato). Prerequisite: Upper-division standing.

### **C C 348F. Beyond the New Testament.**

Same as Religious Studies 353E. Study of early Christian writings that were not included in the Christian Bible. Examines issues such as the effect of narrative, religion and violence, gendered expectations for women and men, the uses of fantasy literature, and religious authority. Emphasis on systematic methods for disciplined interpretation. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Beyond the New Testament), 348F, Religious Studies 353E. Prerequisite: Upper-division standing.

### **C C 348G. Death and the Afterlife in Graeco-Roman Antiquity.**

Same as Core Texts and Ideas 328D and Religious Studies 365G. Explore the afterlife from Near Eastern myths and Homer through Greek and Roman antiquity to the early Church Fathers. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Death/Afterlife Graeco-Roman), 348G, Core Texts and Ideas 328D, Religious Studies 365G. Prerequisite: Upper-division standing.

### **C C 348I. Revelation and Apocalyptic Literature.**

Same as Religious Studies 353J. Examine the Book of Revelation in the context of early Christian and Jewish literature. Study other apocalyptic texts, methods of textual analysis, and the ongoing effects of Revelation in modern American culture. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Revelation and Apocalyptic Lit), 348I, Religious Studies 353 (Topic 1), 353J. Prerequisite: Upper-division standing.

### **C C 348J. Paul and His Social World.**

Same as Religious Studies 353P. Examine the life and letters of the first-century Jewish missionary Paul by interpreting his writings within the context of diaspora Judaism and the broader Greco-Roman world. Explore his legacy within the context of early church history. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Paul and His Social World), 348J, Religious Studies 353 (Topic 2), 353P. Prerequisite: Upper-division standing.

### **C C 348K. Archaic Greece: Society and Culture.**

Same as Core Texts and Ideas 327C. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Archaic Greece: Soc/Culture), 348K, Core Texts and Ideas 327C. Prerequisite: Upper-division standing.

### **C C 348P. Africa and Rome.**

Same as African and African Diaspora Studies 340U, History 321J, and Middle Eastern Studies 343 (Topic 15). Explore the history of Roman Africa with emphasis on what is now Tunisia and northern Algeria. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340U, 370 (Topic: Africa and Rome), 374C (Topic: Africa and Rome), Ancient History and Classical Civilization 330 (Topic: Africa and Rome), Classical Civilization 348 (Topic: Africa and Rome), 348P, History 321J, 364G (Topic: Africa and Rome), 366N (Topic: Africa and Rome), Middle Eastern Studies 343 (Topic: Africa and Rome), 343 (Topic 15). Prerequisite: Upper-division standing.

### **C C 362. Conference Course in Classical Archaeology.**

Advanced archaeological instruction and research in classical archaeology. No knowledge of Greek is required. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **C C 363. Conference Course in Classical Civilization.**

Supervised work in various specialized aspects of classical civilization. No knowledge of Greek or Latin is required. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **C C 375. Seminar in Classical Studies.**

Restricted to students in the Department of Classics. Study of selected topics in classical studies. Some knowledge of Greek or Latin is expected. Three lecture hours a week for one semester. Classical Civilization 340 and 375 may not both be counted unless the topics vary. Classical Civilization 348 and 375 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Roman Law.** Same as Ancient History and Classical Civilization 378 (Topic 1). Introduction to Roman law with close study of primary sources. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Roman Law), 378 (Topic 1), Classical Civilization 375 (Topic 1).

**Topic 2: Aegean Prehistory.** Same as Ancient History and Classical Civilization 378 (Topic 2). Traces political, social, economic, and general cultural developments on Crete and the Greek mainland between roughly 2200 and 1100 BCE. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Aegean Prehistory), 378 (Topic 2), Classical Civilization 375 (Topic 2), History 350L (Topic: Aegean Prehistory).

**Topic 3: Writing Ancient History Today.** Same as Ancient History and Classical Civilization 378 (Topic 3). Questions that engage ancient historians today and the methods that they use. Some background in ancient Greek history is recommended. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Writing Ancient History Today), 378 (Topic 3), Classical Civilization 375 (Topic 3), History 350L (Topic: Writing Ancient History Today).

**Topic 4: The Athenian Empire.** Same as Ancient History and Classical Civilization 378 (Topic 4). Explores Athenian society, democracy, and empire from the development of Athenian hegemony in the 470s BCE through the break up of the Athenian Empire in 404 BCE. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Athenian Empire), 378 (Topic 4), Classical Civilization 375 (Topic 4), History 350L (Topic: Athenian Empire).

**Topic 5: Space and Place.** Same as Ancient History and Classical Civilization 378 (Topic 5). Multidisciplinary approach to the cultural concepts of space and place using Greek and Roman literary, historical, and archaeological sources. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Space and Place), 378 (Topic 5), Classical Civilization 375 (Topic: Space and Place), 375 (Topic 5)

**Topic 6: Ancient Sparta.** Same as Ancient History and Classical Civilization 378 (Topic 6). Examines topics and problems in the social, political and economic history of the ancient city-state of Sparta. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Ancient Sparta), 378 (Topic 6), Classical Civilization 375 (Topic 6).

**Topic 7: Cognitive History of the Ancient World.** Same as Ancient History and Classical Civilization 378 (Topic 7). Examines aspects of the organization of thought in the ancient world. Only one of the following may be counted: Ancient History and Classical Civilization

378 (Topic: Cognitive Hist of Anc World), (Topic 7), Classical Civilization 375 (Topic 7).

**Topic 8: Herodotus, Ethnography, and Archaeology.** Same as Ancient History and Classical Civilization 378 (Topic 8). Explore the ethnographic component of the Histories of Herodotus. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 378 (Topic: Herodotus, Ethnograph, & Arch), 378 (Topic 8), Classical Civilization 375 (Topic: Herodotus, Ethnograph, & Arch), 375 (Topic 8). Additional prerequisite: Upper-division standing.

### **C C 679H. Honors Tutorial Course.**

Supervised conference course for honors candidates in classics. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Classics Honors Program; for 679HB, Classical Civilization 679HA.

## **Graduate Courses**

### **C C 380. Seminar in Classical Archaeology.**

Topics given in recent years include methods and theory, Greek and Roman Naples, landscape archaeology, and Hellenistic and Roman Egypt. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **C C 380J. Proseminar in Classical Literature.**

Brief survey of the history of classical literature; orientation to the major periods and genres. Three hours a week for one semester. Designed for first-year graduate students. Prerequisite: Graduate standing.

### **C C 381. Conference Course in Classical Civilization.**

Studies in classical antiquity. A knowledge of the ancient languages is not required. Three hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **C C 382. Field Archaeology.**

Involves the participation of the student in an archaeological excavation; the study of field techniques includes excavation procedure, documentation, conservation, and interpretation. Three hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **C C 383. Studies in Classical Civilization.**

Studies in various aspects of Greek and Roman literature, history, and culture. Three hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Roman Imperial Funerary Monuments.**

**Topic 2: Introduction to Diachronic Linguistics: Germanic.** Same as German 381 (Topic 3) and Linguistics 383 (Topic 8). Only one of the following may be counted: Classical Civilizations 383 (Topic 2), German 381 (Topic 3), Linguistics 383 (Topic 8).

### **C C 383K. Current Concepts and Research in Classics.**

Overview of important theories, issues, and research in classics. Three hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **C C 186K, 386K. Conference Course in Classical Literature.**

Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

## **Professional Courses**

# Cognitive Science Courses

## Cognitive Science: CGS

### Lower-Division Courses

### Upper-Division Courses

#### **CGS 360. Cognitive Science: The Study of Mind.**

An introduction to the study of mind known as cognitive science, focusing on key areas such as vision and language, cognition and problem solving, artificial intelligence. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Introduction to Cognitive Science.** Same as Linguistics 373P and Philosophy 365 (Topic 2). Three lecture hours a week for one semester. Only one of the following may be counted: Cognitive Science 360 (Topic 1), Linguistics 373 (Topic 7), 373P, Philosophy 365 (Topic 2). Additional prerequisite: Upper-division standing.

#### **CGS 365. Bias.**

Same as Human Dimensions of Organizations 365 and Linguistics 365. An interdisciplinary introduction to bias from the perspectives of psychology, political science, business, philosophy, and linguistics. Three lecture hours a week for one semester. Only one of the following may be counted: Cognitive Science 365, 360 (Topic: Bias), Linguistics 365, 350 (Topic: Bias), Human Dimensions of Organizations 330 (Topic: Bias), 365. Prerequisite: Upper-division standing.

### Graduate Courses

#### **CGS 380. Advanced Topics in Cognitive Science.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Introduction to Cognitive Science.** Same as Linguistics 392 (Topic 1: Introduction to Cognitive Science), Philosophy 383C, and Psychology 394U (Topic 3: Introduction to Cognitive Science). Only one of the following may be counted: Cognitive Science 380 (Topic 1), Linguistics 392 (Topic 1), 393 (Topic: Introduction to Cognitive Science), 393 (Topic: Topics in Cognitive Science), Philosophy 383 (Topic: Introduction to Cognitive Science), 383C, Psychology 394U (Topic 3).

### Professional Courses

# Communication and Leadership Courses

## Communication and Leadership: CLD

### Lower-Division Courses

#### **CLD 301. Introduction to Communication and Leadership.**

Introduces the study of leadership with an emphasis on communication dimensions and interdisciplinary understanding of social problems. Serves as a foundation for subsequent coursework in the areas of communication and leadership. Three lecture hours a week for one semester. Communication 301L and Communication and Leadership 301 may not both be counted.

#### **CLD 102, 202, 302. Topics in Communication and Leadership.**

Contemporary issues and practices in communication and leadership. For each semester hour of credit earned, the equivalent of one lecture

hour a week for one semester. May be repeated for credit when the topics vary.

#### **CLD 304. Introduction to Philanthropy.**

Offers an introduction to philanthropy, focusing on the process of private giving as well as the work of private foundations. Three lecture hours a week for one semester.

#### **CLD 314. Fundamentals of Philanthropy.**

Builds on Introduction to Philanthropy, considering the process of creating and evaluating philanthropic initiatives. Three lecture hours a week for one semester. Prerequisite: Communication and Leadership 304.

### Upper-Division Courses

#### **CLD 120, 220, 320. Topics in Communication and Leadership.**

Contemporary issues and practices in communication and leadership. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

#### **CLD 321. Seminar on Communication and Leadership.**

Restricted to students in the Moody College of Communication. Builds on the foundation introduced in Communication and Leadership 301 advancing student work in theories, processes, and practices of leadership and communication. Three lecture hours a week for one semester. Communication 320L and Communication and Leadership 321 may not both be counted. Prerequisite: Communication 301L or Communication and Leadership 301.

#### **CLD 122, 222, 322. Independent Study.**

Restricted to communication and leadership majors. Pursue special supervised individual research studies. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Consent of the director of the communication and leadership degree.

#### **CLD 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Communication and Leadership.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Communication and Leadership degree. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. For each hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary.

#### **CLD 330. Philanthropy Capstone.**

Analyze the effectiveness of nonprofit organizations and how to think about and apply the ethics, strategy, and practice of philanthropic giving. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **CLD 340. Communication for Civic Engagement.**

Examine theories and applied practices for impactful and effective civic education. The equivalent of three lecture hours per week for one semester. Communication and Leadership 320 (Topic: Comm for Civic Engagement) and 340 may not both be counted. Prerequisite: Upper-division standing.

#### **CLD 351, 651. Internship in Communication and Leadership.**

Restricted to Communication and Leadership majors. Practical work experience related to the practice of ethical leadership and

communication with a non-profit community, or philanthropic organization. For 351, an average of 10 hours of work a week, for a total of at least 150 hours a semester or summer term; for 651, an average of 20 hours of work a week, for a total of at least 300 hours a semester or summer term. Communication 351L and Communication and Leadership 351 may not both be counted. Offered on the pass/fail basis only. Prerequisite: Upper-division standing; Communication 320L or Communication and Leadership 321.

### **CLD 371. Capstone Course in Communication and Leadership.**

Restricted to Communication and Leadership majors. Engagement in experiential learning. Development and presentation of ideas and plans for addressing a leadership challenge given by a partner organization. Three lecture hours a week for one semester. Communication 370L and Communication and Leadership 371 may not both be counted. Prerequisite: Upper-division standing and Communication 320L or Communication and Leadership 321.

### **CLD 679. Undergraduate Thesis.**

Restricted to communication and leadership majors. Write and research two consecutive semesters under the supervision of a College of Communication faculty member; subjects are selected by the student with approval from the faculty member. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679A, upper-division standing and consent of instructor. For 679B, CLD 679A.

## **Graduate Courses**

## **Professional Courses**

# **Communication Courses**

## **Communication: COM**

### **Lower-Division Courses**

#### **COM 301C. Freshman Seminar.**

Restricted to first-semester freshmen. Small-group seminar involving reading, discussion, writing, and oral reports. Introduction to University resources, including libraries, computer and research facilities, and museums. Several sections are offered each semester, with various topics and instructors. Two lecture hours and one discussion hour a week for one semester.

#### **COM 301E. Introduction to Communication Foundations.**

Restricted to students in the Moody College of Communication. Introduction to the various communication fields and their key concepts and axioms. Includes multicultural communication, global communication, media literacy, and social media. The equivalent of three lecture hours per week for one semester. Offered on the letter-grade basis only.

#### **COM 301L. Introduction to Communication and Leadership.**

Introduces the study of leadership with an emphasis on communication dimensions and interdisciplinary understanding of social problems. Serves as a foundation for subsequent coursework in the areas of communication and leadership. Three lecture hours a week for one semester. Communication 301L and Communication and Leadership 301 may not both be counted.

#### **COM 102. Introduction to Health Communication.**

Covers contemporary issues in health communication theory and practice with an emphasis on interdisciplinary perspectives. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester.

#### **COM 102D, 202D, 302D. Connecting Internship Experience.**

Supervised internship experience related to interdisciplinary themes of a Bridging Disciplines Program. Internships may be on or off campus, be paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. For 102D, three hours of fieldwork a week for one semester; for 202D, six hours of fieldwork a week for one semester; for 302D, ten hours of fieldwork a week for one semester. With consent of the Bridging Disciplines Program research coordinator, may be repeated once for credit. May not be counted toward any College of Communication degree. Prerequisite: Admission to the Bridging Disciplines Programs.

#### **COM 302E. Interdisciplinary Communication Foundations.**

Restricted to students in the Moody College of Communication. Explore in greater depth the concepts that connect and unite diverse areas of communication theory and practice. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Communication 301E.

#### **COM 303. Introduction to Contemporary Media Literacy.**

Offers an introduction to media literacy, which enables us to create and critique contemporary media, and explores the expanding nature of literacy in a digital world with particular focus on its role in social and political contexts. Three lecture hours a week for one semester.

#### **COM 304. Global Communication.**

Introduces the subject of global media and communication as significant industries, texts, and technologies that contribute to our cultural identities, social worlds, political practices, and economic consequences. Three lecture hours a week for one semester.

#### **COM 105. Beyond the Bridge.**

Restricted to students in the Moody College of Communication. Provides an overview of the concepts involved in career decision-making and the career planning process. One lecture hour per week for one semester.

#### **COM 306. Introduction to Communication Research Methods.**

An introduction to quantitative and qualitative designs, sampling, measurement, data collection, and analytic procedures in communication research. Three lecture hours a week for one semester. Communication 306 and 360 may not both be counted.

#### **COM 307H. Life of the Mind: Honors.**

Restricted to students in the Moody College of Communication Honors Program. A guided experience in critical thinking and discussion based on consideration of cross-disciplinary modes of inquiry to probe big questions about knowledge, meaning, and communication throughout history. Three lecture hours a week for one semester.

#### **COM 308. Creative Communication of Scientific Research.**

Same as Natural Sciences 303. Learn to communicate about science, technology, and medicine to broad audiences in order to increase understanding of the impact these fields have on human lives. Three lecture hours a week for one semester. Communication 308 and Natural Sciences 303 may not both be counted.

#### **COM 308H. Life of Community: Honors.**

Restricted to students in the Moody College of Communication Honors Program. Considers the social responsibilities of intellectual leadership and the role of communication in a world characterized by political divisions, varieties of inequality, and global challenges to health and sustainability. Three lecture hours a week for one semester. Prerequisite: Communication 307H.

### **COM 310. Topics in Texas Sports and Media.**

Introduction to various contemporary and historical issues, emphasizing interdisciplinary perspectives and critical discourse. Three lecture hours a week for one semester. Communication 310 and Journalism 313S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **COM 012. First-year Seminar.**

Restricted to students in the Moody College of Communication. Introduction to campus and college resources for first-year students. Supports the Moody foundations courses. One lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only.

### **COM 013. Success Scholars Seminar.**

Restricted to students in the Moody College of Communication. Introduction to Moody resources and exploration of skills such as managing finances, navigating the scholarship application and preparing for a career. Build community among Moody Success Scholars. One lecture a week for one semester. May be repeated for credit. Offered on the pass/fail basis only.

### **COM 114, 214, 314. Special Topics in Communication.**

Contemporary issues and practices in communication. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted unless topics vary: Communication 114, 214, 314, 117, 217, 317, or 118, 218, 318. May be repeated for credit when the topics vary.

### **COM 115, 215, 315. Topics in Leadership and Communication.**

Restricted to students in the College of Communication. Contemporary issues, practices, and skills related to leadership and communication. For 115, two lecture hours a week for eight weeks; for 215, two lecture hours a week for one semester; for 315, three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **COM 316 (TCCN: COMM 1316). Photographic Communication.**

Introduction to photographic technique and recent trends, evaluation, visual design, and use of images in the media. Students must provide their own digital 35-mm format camera. Three lecture hours and one and one-half laboratory hours a week for one semester.

### **COM 117, 217, 317. Special Topics in Communication.**

Contemporary issues and practices in communication. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted unless topics vary: Communication 114, 214, 314, 117, 217, 317, or 118, 218, 318. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **COM 118, 218, 318. Special Topics in Communication.**

Contemporary issues and practices in communication. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted unless topics vary: Communication 114, 214, 314, 117, 217, 317, or 118, 218, 318. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

### **COM 118C, 218C, 318C. Forum Seminar Series.**

Restricted to freshmen and sophomores. Lectures and discussions on various contemporary issues. Emphasis on multidisciplinary perspectives and critical discourse. For 118C, two lecture hours a week for eight weeks; for 218C, two lecture hours a week for one semester; for

318C, three lecture hours a week for one semester, or two lecture hours and one hour of supervised research a week for one semester. May be repeated for credit when the topics vary.

### **COM 119, 219, 319. International Learning Seminars.**

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Communication 119, 219, 319, and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **COM 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Communication.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Communication Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **COM 320. Advanced Topics in Texas Sports and Media.**

Critical assessment of various contemporary and historical issues, emphasizing interdisciplinary perspectives. Three lecture hours a week for one semester. Communication 320 and Journalism 326S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Completion of at least sixty semester hours of coursework and a University grade point average of at least 2.25.

### **COM 320L. Seminar on Communication and Leadership.**

Restricted to students in the Moody College of Communication. Builds on the foundation introduced in Communication 301L, advancing student work in theories, processes, and practices of leadership and communication. Three lecture hours a week for one semester. Communication 320L and Communication and Leadership 321 may not both be counted. Prerequisite: Communication 301L with a grade of at least C and a minimum University grade point average of 2.25.

### **COM 323. Communication Internship.**

Practical work experience, arranged by the student and approved by instructor. Internship hours to be arranged. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and consent of instructor.

**Topic 1: Sports Media Internship.** Restricted to students pursuing a minor in Sports Media. Offered on the pass/fail basis only.

**Topic 2: Social Change Internship.** Restricted to students pursuing a minor in Communication and Social Change. Offered on the pass/fail basis only.

**Topic 3: Global Experience.** Restricted to students pursuing a minor in Global Communication. Offered on the pass/fail basis only.

**Topic 4: Science Communication Internship.** Restricted to students pursuing a minor in Science Communication. Offered on the pass/fail basis only.

### **COM 324. Topics and Skills in Communication.**

Restricted to students admitted to the Semester in Los Angeles Program. Contemporary issues, practices, and skills related to communication and the entertainment industries, including studies in the business of entertainment, the creative process, and contemporary Hollywood cinema. Three lecture hours a week for one semester. May

be repeated for credit when the topics vary. Prerequisite: Upper-division standing, three hours of lower-division coursework in radio-television-film, and a University grade point average of at least 2.25.

**Topic 1: Semester in Los Angeles: How Hollywood Works.** Same as Radio-Television-Film 347C (Topic 1). Restricted to students admitted to the Semester in Los Angeles Program. Explores the commercial challenges that face producers and network and studio executives, and addresses the continual struggle between creativity and the bottom line. Taught in Los Angeles, California. Only one of the following may be counted: Communication 324 (Topic: How Hollywood Works-L A), (Topic 1), Radio-Television-Film 347C (Topic: How Hollywood Works-L A), (Topic 1).

**Topic 2: Semester in Los Angeles: Development Process of Film and Television.** Same as Radio-Television-Film 348 (Topic 2). Restricted to students admitted to the Semester in Los Angeles Program. Examines the development process in both film and television; preparing pitches, coverage, and development notes; identifying strengths and weaknesses of literary material typical of that submitted to studios, networks, and production companies. Taught in Los Angeles, California. Only one of the following may be counted: Communication 324 (Topic: Development Process of Film and Television), 324 (Topic 2), Radio-Television-Film 348 (Topic: Development Process of Film and Television), 348 (Topic 2).

**Topic 3: Semester in Los Angeles: Inside the Music Industry.** Same as Radio-Television-Film 348 (Topic 3). Restricted to students admitted to the Semester in Los Angeles Program. Examine how the music industry really works, how it relates to other divisions of the entertainment industry, and the effects that changing technologies have on it. Only one of the following may be counted: Communication 324 (Topic: Inside The Music Industry), 324 (Topic 3), Radio-Television-Film 348 (Topic: Inside The Music Industry) and 348 (Topic 3).

**Topic 4: Semester in Los Angeles: New Media and Emerging Entertainment.** Same as Radio-Television-Film 348 (Topic 4). Restricted to students admitted to the Semester in Los Angeles Program. Explores burgeoning areas of digital entertainment including broadband, video-on-demand, interactive television, mobile entertainment, and interactive digital gaming. Taught in Los Angeles, California. Only one of the following may be counted: Communication 324 (Topic: New Media and Emerging Entertainment), 324 (Topic 4), Radio-Television-Film 348 (Topic: New Media and Emerging Entertainment), 348 (Topic 4).

**Topic 5: Careers in Entertainment-Los Angeles.** Explores specific career interests with a focus on skills, experience, training, and contacts that are required in Los Angeles. Taught in Los Angeles, California. Only one of the following may be counted: Communication 324 (Topic: Careers in Entertainment), 324 (Topic 5), Radio-Television-Film 324L (Topic: Careers in Entertainment), 324L (Topic 5).

### **COM 324C. Fundamentals of Business Communication.**

Explore strategic business communications skills, including effective oral, written, and digital communication, across diverse audiences, presentations, and document types. Examine audience analysis, basic communication theory, interpersonal communication, and teamwork. The equivalent of three lecture hours per week for one semester. Only one of the following may be counted: Communication 324C, 324H, 324M, Business Administration 324, 324H. Offered on the letter-grade basis only. Prerequisite: Communication 301E.

### **COM 324H. Introduction to Business Communication: Honors.**

Restricted to students in the McCombs School of Business Honors Program. Explore strategic business communications skills, including effective oral, written, and digital communication, across diverse audiences, presentations, and document types. Examine audience

analysis, basic communication theory, interpersonal communication, and teamwork. The equivalent of three lecture hours per week for one semester. Only one of the following may be counted: Communication 324C, 324H, 324M, Business Administration 324, 324H. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Business Administration 101H or 101S or 101T; and one of the following: English 303C (or 603A), or Rhetoric and Writing 306 or 306Q or 309K, or Tutorial Course 303C (or 603A).

### **COM 324M. Introduction to Business Communication.**

Restricted to students in the McCombs School of Business. Explore strategic business communications skills, including effective oral, written, and digital communication, across diverse audiences, presentations, and document types. Examine audience analysis, basic communication theory, interpersonal communication, and teamwork. The equivalent of three lecture hours per week for one semester. Only one of the following may be counted: Communication 324C, 324H, 324M, Business Administration 324, 324H. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Business Administration 101H or 101S or 101T; and one of the following: English 303C (or 603A), or Rhetoric and Writing 306 or 306Q or 309K, or Tutorial Course 303C (or 603A).

### **COM 125, 225, 325. Topics in Leadership and Communication.**

Restricted to students in the College of Communication. Contemporary issues, practices, and skills related to leadership and communication. For 125, two lecture hours a week for eight weeks; for 225, two lecture hours a week for one semester; for 325, three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **COM 325S. Issues in Sports Media.**

Special topics in the role and convergence of sports and the media. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **Topic 1: Sports, Media, and the Integration of American Society.**

Role and convergence of sports, entertainment, and the media in American society and culture from Reconstruction through the present, including the role of institutions in these categories and their relationship to the integration of American society. Only one of the following may be counted: Advertising 378 (Topic: Sports, Media, and the Integration of American Society), Communication 325 (Topic: Sports, Media, and the Integration of American Society), 325S (Topic 1), Journalism 359T (Topic: Sports, Media, and the Integration of American Society), Public Relations 378 (Topic: Sports, Media, and the Integration of American Society). Prerequisite: Upper-division standing and a University grade point average of at least 2.25.

### **COM 126, 226, 326. Independent Study.**

Restricted to students in the Moody College of Communication. Pursue special supervised individual research studies. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor.

### **COM 129, 229, 329, 429, 529, 629. International Learning Seminars.**

Restricted to students participating in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Communication 129, 229, 329, 429, 529, 629 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

**COM 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Communication.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the appropriate College of Communication department. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**COM 330. Research in Texas Sports and Media.**

Same as Journalism 339S. Restricted to journalism majors. Supervised research with a faculty member; research may consist of an individual project or assisting a faculty research project. Hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing and a University grade point average of at least 2.25; and Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

**COM 330H. Honors Capstone.**

Restricted to students in the College of Communication Honors Program. Independent project agreed upon by the student and instructor, includes a variety of approaches in a variety of media, from creative work, to campaign planning and implementation, research papers, long-form journalism, community engagement, and service learning initiatives. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Communication 307H and 308H.

**COM 333T. Communication and Engineering Careers.**

Restricted to students in the Cockrell School of Engineering. Study foundational communication skills associated with a successful engineering career, aiding in preparation for career fairs and interviews, communicating with non-technical audiences, diversity and inclusion, and teamwork. The equivalent of three lecture hours per week per semester. Only one of the following may be counted: Aerospace Engineering 333T, Biomedical Engineering 333T, Communication 333T, Civil Engineering 333T, Chemical Engineering 333T, Electrical Engineering 333T, Engineering Studies 333T, Mechanical Engineering 333T, Petroleum and Geosystems Engineering 333T. Prerequisite: Rhetoric and Writing 306, or the equivalent, with a grade of at least C-.

**COM 134, 234, 334. Special Topics in Communication.**

Contemporary issues and practices in communication. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted unless topics vary: Communication 134, 234, 334, 135, 235, 335, or 136, 236, 336. May be repeated for credit when the topics vary.

**COM 135, 235, 335. Special Topics in Communication.**

Contemporary issues and practices in communication. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted unless topics vary: Communication 134, 234, 334, 135, 235, 335, or 136, 236, 336. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

**COM 136, 236, 336. Special Topics in Communication.**

Contemporary issues and practices in communication. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted unless topics vary: Communication 134, 234, 334, 135, 235, 335, or 136, 236, 336. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

**COM 340. Leadership and Urban Engagement.**

Same as Fine Arts 345, Liberal Arts 340, and Management 340. Restricted to students accepted to the UT in New York Program. Explore leadership skills and goals in the urban context. Read and discuss leadership challenges that arise when stakeholders come together to plan, make decisions, and take action in organizational and community settings. Three lecture hours a week for one semester. Only one of the following may be counted: Communication 340, Fine Arts 345, Liberal Arts 325 (Topic: Leadership/Urban Engagement), 340, Management 340. Prerequisite: Upper-division standing.

**COM 040H. Honors Reflection.**

Restricted to students in the Moody College Honors Program. Reflect on the honors experience. Hours to be arranged. Offered on the pass/fail basis only.

**COM 350, 650. Communication Internship.**

Internships to be arranged by student and approved by instructor. For 350, an average of 10 hours of work a week, for a total of at least 150 hours a semester or summer term; for 650, an average of 20 hours of work a week, for a total of at least 300 hours a semester or summer term. Offered on the pass/fail basis only. Prerequisite: Upper-division standing.

**COM 350L, 650L. Semester in Los Angeles Internship.**

Restricted to students in the Semester in Los Angeles Program. Practical work experience in the entertainment industry in Los Angeles. Students must make their own arrangements to secure relevant internships. For 350L, an average of 10 hours of work a week, for a total of at least 150 hours a semester or summer term; for 650L, an average of 20 hours of work a week, for a total of at least 300 hours a semester or summer term. Communication 350L, 650L and Radio-Television-Film 350L, 650L may not both be counted. Offered on the pass/fail basis only. Prerequisite: Upper-division standing.

**COM 351L. Internship in Communication and Leadership.**

Restricted to communication and leadership majors. Practical work experience related to the practice of ethical leadership and communication with a non-profit community, or philanthropic organization. An average of 10 hours of work a week, for a total of at least 150 hours a semester or summer term. May not be taken by students who have credit for any three semester-hour communication college internship course. Communication 351L and Communication and Leadership 351 may not both be counted. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, Communication 320L with grade of at least C, and a 2.25 overall GPA, and consent of instructor.

**COM 160H, 260H, 360H. Independent Study: Honors.**

Restricted to students in the Moody College of Communication Honors Program. Pursue special supervised individual research studies. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Communication 307H, 308H, and consent of instructor.

**COM 361. Advanced Communication Research Design.**

Advanced studies in quantitative and qualitative designs, sampling, measurement, data collection, and analytic procedures in communication research. Three lecture hours a week for one semester. Prerequisite: Communication 306 or consent of instructor.

**COM 370. Advanced Study in Communication.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, admission to the College of Communication Honors Program, and consent of instructor.

### **COM 370H. Topics in Advanced Communication Studies: Honors.**

Restricted to students in the Moody College of Communication Honors Program. Special topics for students in the Moody College of Communication Honors Program. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Communication 307H, 308H, and consent of instructor.

### **COM 370L. Capstone Course in Communication and Leadership.**

Restricted to communication and leadership majors. Engagement in experiential learning. Development and presentation of ideas and plans for addressing a leadership challenge given by a partner organization. Three lecture hours a week for one semester. Communication 370L and Communication and Leadership 371 may not both be counted. Prerequisite: Upper-division standing, Communication 320L with a grade of at least C, and a minimum University grade point average of 2.25.

### **COM 179. Advanced Communication Internship.**

Restricted to students in the Moody College of Communication. Practical work experience related to the student's area of interest in the communication field. An average of 10 hours of work a week, for a total of at least 150 hours a semester or summer term. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Consent of instructor.

### **COM 679C. Undergraduate Thesis.**

Write and research two consecutive semesters under the supervision of a College of Communication faculty member; subjects are selected by the student with approval from the faculty member. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679CA, upper-division standing and consent of instructor. For 679CB, COM 679CA.

### **COM 679H. Honors Thesis.**

Restricted to students in the Moody College of Communication Honors Program. Write and research two consecutive semesters under the supervision of a College of Communication faculty member; subjects are selected jointly by the student and the faculty member with approval by the director of the Honors Program. Three lecture hours a week for two semesters. Prerequisite: For 679HA, upper-division standing, Communication 307H, and 308H; for 679HB, upper-division standing, and Communication 679HA.

## **Graduate Courses**

### **COM 281, 381. Seminar in Communication.**

Communication in a pluralistic society; nature of theory development; state of communication theory; conceptual models; sources of communication theory: semantic, linguistic, perceptual, sociological; information theory. Two or three lecture hours a week for one semester. Communication 281 is offered on the credit/no credit basis only. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: For 281, graduate standing; for 381, graduate standing and at least twelve semester hours of upper-division coursework in the major.

### **COM 385. Topics and Skills in Communication.**

Contemporary issues, practices, and skills related to communication. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **COM 088C. Science Communications Seminar.**

Same as Natural Sciences 088C. Restricted to students in the Moody College of Communication and the College of Natural Sciences.

Professional development supplemental to primary studies. Designed to develop skills in the effective communication of scientific concepts. Hours to be arranged. Communication 088C and Natural Sciences 088C may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **COM 088D. Science Communications Practicum.**

Same as Natural Sciences 088D. Restricted to students in the Moody College of Communication and the College of Natural Sciences. Professional development supplemental to primary studies. May be taking concurrently with the Science Communication Seminar. Opportunities to focus on skill development while receiving constructive assessment and evaluation. Hours to be arranged. Communication 088D and Natural Sciences 088D may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **COM 398T. Supervised Teaching in Communication.**

Required for assistant instructors. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

## **Professional Courses**

# **Communication Studies Courses**

## **Communication Studies: CMS**

### **Lower-Division Courses**

#### **CMS 301. Topics in Communication Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **CMS 306M (TCCN: SPCH 1321). Professional Communication Skills.**

Designed to help students develop skills in one-on-one interactions, small group communication, and presentation skills. Basic communication theories as they relate to skill development are explored. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Studies 305, 306M, 319, Speech 305, 319.

#### **CMS 307K. Internship.**

Internship to be arranged by student and approved by instructor. Focuses on career goals of students in communication positions with public and private organizations. The equivalent of ten hours a week for one semester, for a minimum of 150 hours a semester or summer session. Communication Studies 301 (Topic: Internship) and 307K may not both be counted. Offered on the pass/fail basis only. Prerequisite: Consent of instructor.

#### **CMS 210. Forensics Workshop.**

Open to all University students. Training for participation in extracurricular speech activities, including intercollegiate debate. Two lecture hours and eight laboratory hours a week for one semester. May be taken three times for credit. May be repeated for credit.

#### **CMS 310K (TCCN: SPCH 2333). Team-Based Communication.**

Analysis of small-group communication: cohesiveness, social climate, role structure, leadership, conformity, dynamics of interaction; participation in small-group communication situations. Three lecture hours a week for one semester.

**CMS 313M. Organizational Communication.**

Communication processes within government, private, and volunteer organizations. Three lecture hours a week for one semester.

**CMS 314L. Language, Communication, and Culture.**

The role of language in communication. Analysis of the complexity of human languages, languages in contact, language modality, and communication interaction. Three lecture hours a week for one semester.

**CMS 315M (TCCN: SPCH 1318). Interpersonal Communication Theory.**

Introduction to the study of communication in relationships; topics include self-disclosure, conflict, long-distance relationships, stereotyping, and persuasion. Three lecture hours a week for one semester.

**CMS 316L. Interviewing Principles and Practices.**

Introduction to interviewing theory, emphasizing the acquisition and application of interviewing skills. Three lecture hours a week for one semester.

**CMS 317C. Speech in American Culture.**

The impact of public discourse on the ideas and issues of culture and history in the United States. Three lecture hours a week for one semester.

**CMS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Communication Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the appropriate College of Communication department. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**Upper-Division Courses****CMS 320. Advanced Presentation Skills.**

Designed to help students develop skills in delivering informative and persuasive presentations and speeches. Study of major theories related to oral presentations. Focus on audience analysis and adaptation, building strong arguments, speech organization, and use of new technologies. Three lecture hours a week for one semester. Communication Studies 320 and 367 (Topic: Advanced Presentation Skills) may not both be counted. Prerequisite: Upper-division standing and Communication Studies 306M with a grade of at least C-.

**CMS 321D. Communicating for Development and Philanthropy.**

An exploration of the special communicative dimensions of the development and philanthropy fields, including how to apply theories of building relationships and persuasion to the context of development and philanthropy for nonprofit organizations. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**CMS 322E. Communication Ethics.**

Examination of the ethical issues involved in communication. Subjects addressed include our role in interactions we are party to; media coverage of issues of a sensitive or potentially harmful nature; and how our interactions with others reflect and shape who we are. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**CMS 323R. Rhetoric: East and West.**

Examination of the ways people from different cultures communicate and argue, and how cultures use logic, stories, myth, images, and the

spoken word to make their points. Three lecture hours a week for one semester. Communication Studies 323R and 367 (Topic: Rhetoric East and West) may not both be counted. Prerequisite: Upper-division standing.

**CMS 327. Urban Communication.**

Restricted to students admitted to the Semester in New York Program. Examines communication between and within cultures in urban communities, especially immigrants and marginalized groups. Special focus on understanding the role cross-cultural relations play in shaping the identity of community members. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**CMS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Communication Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Communication Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**CMS 330. Interpersonal Health Communication.**

The fundamental interpersonal communication processes that are involved in managing physical and mental health. Includes stigma and illness identity, social support, patient-provider communication, end-of-life care, and health education. Three lecture hours a week for one semester. Communication Studies 330 and 367 (Topic: Interpersonal Health Communication) may not both be counted. Prerequisite: Upper-division standing.

**CMS 330D. Health Decision Making.**

Explore the connection between evidence-based health communication practices and evidence-based health decision making. Practice making sense of complicated and ambiguous health information, and examine theoretical concepts that describe and explain how people interact with such health information. Three lecture hours a week for one semester. Communication Studies 330D and 367 (Topic: Health Decision Making) may not both be counted. Prerequisite: Upper-division standing.

**CMS 330P. Communicating with Patients.**

Analyze the communicative work done by healthcare providers. Examine the provider-patient encounter and the ecology of related communication processes. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

**CMS 331K. Speech Writing and Criticism.**

Composition and analysis of oral messages; emphasis on creating and arranging ideas, style, delivery, critical method. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**CMS 332. Argumentation and Advocacy.**

Nature of argumentative controversy; variables of form, method, and ethics; analysis of argumentative rhetorical works. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**CMS 332D. Digital Ethics.**

Explores the ethical issues inherent in the use of digital and online media. Discusses a range of current issues and subjects through the application of important moral theories, attending to how new technologies often challenge knowledge of morality, virtue, and the good life. Analyze case studies to encourage reflection and discussion over contemporary issues in digital ethics. Subjects include the ethics of

hacking, Anonymous operations, online privacy, blogging ethics, online shaming and activism, revenge pornography, online free speech, social media and virtue, as well as other contemporary topics. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 332K. Theories of Persuasion.**

A study of motivational factors involved in persuasive speaking to secure belief and action. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 333. Case Studies in Argumentation.**

Study of argumentation theories. Includes analysis of case studies taken from areas of law, public policy, popular culture, and history. Three lecture hours a week for one semester. Communication Studies 333 and 367 (Topic: Case Studies in Argumentation) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 334F. Fake News.**

Examine the interplay of journalism, satire, and propaganda in their current and historic forms - from comedians on late-night television to active measures in international espionage. Consider the social and political forces that draw us to this type of information, how to deal with it when we encounter it, and what its implications are for geopolitics in the twenty-first century and within our own participatory democracy. Three lecture hours a week for one semester. Communication Studies 334F and Communication Studies 367 (Topic: Fake News) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 334K. Nonverbal Communication.**

Survey of the effects of space, physical appearance, movement, eye behavior, and vocal behavior on interpersonal communication. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 335. Strategic Sales and Event Planning.**

Theory and practice related to the preparation of large-scale sales events and conferences. Designed to develop communication skills and planning techniques. May include client research, investigation of potential venues, telephone-based information interviews, individual or group sales presentations, and event overviews. Three lecture hours a week for one semester. Communication Studies 335 and 367 (Topic: Strategic Sales and Event Planning) may not both be counted. Prerequisite: Upper-division standing and Communication Studies 306M.

### **CMS 337. Building Sales Relationships.**

Explores the theoretical and practical role of communication in the development of long-term client relationships. Explores the consultative sales process, including prospecting, assessing needs, handling objections, presenting, closing, and following up with clients. Focuses on how technology can help or hinder communication. Three lecture hours a week for one semester. Communication Studies 337 and 367 (Topic: Communication to Build Sales Relationships) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 137C. Selling in Healthcare Industries.**

Examine opportunities related to professional sales and business development in the healthcare industry. Explore the theoretical and practical role of communication in the development of long-term client relationships. Investigate the consultative sales process, including prospecting, assessing needs, handling objections, presenting, closing, and following up with clients. One lecture hour a week for one semester.

### **CMS 338. Leadership Stories.**

Uses fictional and nonfictional stories, as well as examples taken from virtual reality, to explore the meaning of leadership. Designed to help

students develop a conceptual, practical, and personal understanding of the meaning of leadership. Three lecture hours a week for one semester. Communication Studies 338 and 367 (Topic: Stories of Leadership) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 338L. Leadership and Public Memory.**

Examines how public memory is created, shaped, and shared through processes and forms like commemorations, museum exhibits, historic sites, and monuments. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 339K. Working Virtually.**

Explore the dynamics of new work arrangements and the factors that shape communication when working in dispersed work arrangements. Examine important skills for navigating these new ways of working. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 339L. Social Interaction in Virtual Environments.**

Examines fundamental principles connected to the uses and effects of new technologies. Covers social networking sites, online dating, and virtual group collaboration. Three lecture hours a week for one semester. Communication Studies 339L and Communication Studies 367 (Topic: Social Interaction in Virtual Environments) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 340D. Expertise and Power in the Digital Commons.**

Explore what it means to produce and/or possess knowledge in the digital era. Examine how the World Wide Web functions as an archive of information; how science enters public conversations in digital forums; how networked infrastructure facilitates the production of digital information; and how big data may be the future of expertise. Approach digital culture through the idea of the commons, assuming an interdisciplinary perspective, drawing insight from various literatures and methodologies. Three lecture hours a week for one semester. Communication Studies 340D and 367 (Topic: Digital Commons) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 340K. Communication and Social Change.**

Analysis of how persuasion is used in mass movements: civil rights, consumerism, feminism, pacifism, religious sects. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 340M. Social Media and Social Movement: Then and Now.**

Explores the role media plays in documenting and shaping the successes and failures of contemporary causes. Considers how these movements use social media to their advantage and the responses from government and other institutions. Three lecture hours a week for one semester. Communication Studies 340M and Communication Studies 367 (Topic: Social Media/Social Movement: Then/Now) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 341. Digital Communications.**

Uses communication and interdisciplinary perspectives to explore interactions involving technology. May include the study of impression formation, identity, surveillance, privacy, distributed teams, trust and deception, online gaming, social support, and uses and impacts of new information and communication technology. Three lecture hours a week for one semester. Communication Studies 341 and 367 (Topic: Computer-Mediated Communication) may not both be counted. Prerequisite: Upper-division standing.

**CMS 342C. Communication and Civic Participation.**

An exploration of the status of American democracy, particularly as it pertains to those born between 1960 and 1990. Subjects include the meaning of citizenship and democratic participation, and the strengths and limitations of marketing efforts targeted at getting youth involved in the democratic system. Three lecture hours a week for one semester. Communication Studies 342C and 367 (Topic: Communication and Civic Participation) may not both be counted. Prerequisite: Upper-division standing.

**CMS 342K. Political Communication.**

A study of the role of symbols in political communication and the techniques and strategies employed by politicians; special attention is given to recent election campaigns. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**CMS 344K. Lying and Deception.**

Examines lying and deception as civil, strategic, and manipulative behavior. Secrets, privacy, disclosures, and confidentiality are examined in a variety of familiar contexts. Three lecture hours a week for one semester. Communication Studies 344K and 367 (Topic: Lying and Deception) may not both be counted. Prerequisite: Upper-division standing.

**CMS 345. Media Effects and Politics.**

The theoretical models and research methods used to study media effects. Emphasis on the political implications of media-effects research and on how media-effects theories can help clarify political issues. May include television violence, the political impact of the news, and the use of media for educational purposes. Three lecture hours a week for one semester. Communication Studies 345 and 367 (Topic: Media Effects and Politics) may not both be counted. Prerequisite: Upper-division standing.

**CMS 345G. Communicating to Government.**

Analyze confident, effective, and ethical communication in regards to policy makers, elected officials, legislative and governmental agencies. Discussion of legal and ethical considerations introduced by governmental communications, as well as strategies and materials for effective communication. Includes guest speakers, and interactive opportunities around the Texas legislature and/or local governmental bodies. Three lecture hours a week for one semester. Communication Studies 345G and 367 (Topic: Communicating to Government) may not both be counted. Prerequisite: Upper-division standing.

**CMS 345K. Perspectives on Rhetoric.**

Four different meanings of rhetoric; how these meanings contribute to the current understanding of communication studies. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**CMS 345N. Political Narratives.**

Examines stories and how they are told during political rituals, under campaign pressures, on the nightly news, and in the daily newspaper: visually, verbally, online, and in person. Three lecture hours a week for one semester. Communication Studies 345N and Communication Studies 367 (Topic: Political Narratives) may not both be counted. Prerequisite: Upper-division standing.

**CMS 345P. Communication and Public Opinion.**

An investigation of the definition and measurement of public opinion. Explores the relationship between communication and public opinion, how changes to public opinion are affected, and the influence of perception of public opinion on personal opinion. Communication

Studies 345P and 367 (Topic: Communication and Public Opinion) may not both be counted. Prerequisite: Upper-division standing.

**CMS 345V. American Voices.**

Examines what is most distinctive about American speech, American film, American advertising, American politics, the American press. Three lecture hours a week for one semester. Communication 370 (Topic: American Voices) and Communication Studies 345V may not both be counted. Prerequisite: Upper-division standing.

**CMS 346. Using Communication Technology at Work.**

Examines how communication technologies affect workplace communication. Considers case studies involving the use of social networking, handheld devices, and e-mail by for-profit and nonprofit organizations. Three lecture hours a week for one semester. Communication Studies 346 and 367 (Topic: Using Communication Technology at Work) may not both be counted. Prerequisite: Upper-division standing.

**CMS 346C. The Cultural Impact of Innovation.**

Examine the fundamentals of humanistic thought for both critiquing and creating innovation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**CMS 347E. Arguing the End of the World.**

Discussion of apocalyptic, millenarian, or millennialism way of thinking and how it affects religious, social, and other personal beliefs. The equivalent of three lecture hours a week for one semester. Communication Studies 347E and 367 (Topic: Arguing the End of the World) may not both be counted. Prerequisite: Upper-division standing.

**CMS 347K. Rhetoric of Popular Culture.**

The ways that film, television, music, fashion, the Internet, and other discourses of popular culture influence public attitudes, perceptions, and social relations. Three lecture hours a week for one semester. Communication Studies 347K and 367 (Topic: Rhetoric of Popular Culture) may not both be counted. Prerequisite: Upper-division standing.

**CMS 347S. Communicating with Stuff.**

Examine how we use material objects and actions as a means of communication, especially objects found in popular culture. Three lecture hours a week for one semester. Communication Studies 347S and 367 (Topic: Communicating with Stuff) may not both be counted. Prerequisite: Upper-division standing.

**CMS 348. Communication Research Methods.**

A practical introduction to research methods, focusing on designing a study, conducting research, analyzing data, and presenting results. Studies survey design, interviews, focus groups, and experiments. Three lecture hours a week for one semester. Communication Studies 348 and 367 (Topic: Communication Research Methods) may not both be counted. Prerequisite: Upper-division standing.

**CMS 348K. Visual Media and Interaction.**

The role of visual resources and symbols in social interaction and public life; the representation of interaction and human relationships in visual media (photography, advertising, fine arts, and film). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**CMS 349M. Advanced Analysis of Popular Culture.**

Advanced critique and analysis of rhetorical dimensions in texts of popular culture. Readings in theory and methods for understanding persuasive influence in television, film, music videos, and the Internet.

Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 350C. Crowds, Clouds, and Community.**

Explores the use of social network theory and analysis to understand the connectivity and complexity of teams, families, organizations, and communities. Consider examples of network analytic approaches to theorize, visualize, analyze, and understand, for example, criminal networks, professional service firms, government contracting, social media platforms, virtual worlds, interorganizational dynamics, post disaster recovery, and ad hoc organizational forms. Three lecture hours a week for one semester. Communication Studies 350C and 367 (Topic: Crowds/Clouds/Community) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 350M. Field Study in Organizational Communication.**

Students acquire information through interviews and observation, devise appropriate coding schemes, and compose synoptic reports of their findings and recommendations. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 351. Communication for Cooperation and Competition.**

Theoretical perspectives and experiential learning on the ways people reconcile the need to be individualistic (competitive) with the need to be community members (cooperative). Individual aggression and submission; the rewards of competition and cooperation; and organizational structures that lead to cooperation and competition. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 352. Organizational Leadership.**

Theories, styles, and components of organizational leadership; communication behaviors of leaders in organizations. History of the study of leadership; new theories and concepts related to leaders as managers of organizational culture and change. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 352D. The Dark Side of Organizational Communication.**

Examine key organizational processes that often operate in the shadows through a communication-based approach. Assess how individuals and organizations respond ethically to these processes. Survey hidden organizations and the ethical response to dark collectives in society. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 353C. Communication for Innovation.**

Examines the critical role that communication and communicative processes play in developing innovative ideas, products, and ways of approaching problems. Analyze behavioral theories and empirical studies to understand the challenges associated with facilitating innovation in organizations and learn strategies for improving work effectiveness. Subjects include motivation, decision making, organizational culture, information sharing, and idea generation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 353S. Social Media and Organizations.**

Explores the relationship between social media use and organizational communication. Subjects include how organizations use social media for communication with external stakeholders and to facilitate internal communications processes. Three lecture hours a week for one semester. Communication Studies 353S and 367 (Topic: Social Media and Organizations) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 354. Conflict Resolution.**

Systematic analysis of conflict and communication to examine some of the effects of communication on conflict and of conflict on communication. Readings, analysis of conflicts, and practice with and evaluation of communication behaviors thought to be effective in conflict talk. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 355K. Intercultural Communication.**

Theories of speech and language that concern interaction between persons from different cultures who speak different languages or dialects. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 355T. Communication and Thought.**

Integrates the emergence of collaborative thought from human communication. Analysis of language and communicative development, conversational pragmatics, perspective-taking, and social network analysis. Three lecture hours a week for one semester. Communication Studies 355T and 367 (Topic: Communication and Thought) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 356C. Collective Action.**

Examine how globalization and technology have impacted how people organize and communicate to achieve better collective outcomes about public good. Three lecture hours a week for one semester. Only one of the following may be counted: Communication 370H (Topic: Collective Action), Communication Studies 356C, 367 (Topic: Collective Action). Prerequisite: Upper-division standing.

### **CMS 356T. Organizational Transparency.**

Examine fundamental dynamics of transparency as a form of communication. Explore a range of problems related to organizational transparency and critically assess organizational transparency as an ethical practice. Three lecture hours a week for one semester. Communication Studies 356T and 367 (Topic: Organizational Transparency) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 357. Family Communication.**

Some of the common issues that face those who live in, counsel, and conduct research with families. The development of traditional families in the United States, different family structures that make up modern society, current issues that affect families, and the impact of communication on family experiences. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 358. Communication and Personal Relationships.**

The nature of human interaction in various types of relationships (friends, dates, spouses, roommates), the nature of communication at different stages in a relationship, and the nature of communication at different life stages. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 358C. Identity In Relationships.**

Examine the influence of the unique combination of gender, ethnicity, age, sexual orientation, education, income, ability, and more as they relate to relationships with friends, families, partners, and selves. Three lecture hours a week for one semester. Communication Studies 358C and 367 (Topic: Identity in Relationships) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 359. Language, Culture, and Communication of Hip-Hop.**

Uses hip-hop music as a model for understanding a speech community. Focuses on language innovation and the creation of new social networks, forms of communication, and cultural meaning and values. Three lecture hours a week for one semester. Communication Studies 359 and 367 (Topic: Language, Culture, and Communication in the Hip-Hop Nation) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 359C. Inside the American Conversation.**

A look at a handful of conversations in America, from phone calls between family members and dating couples in the 1980s, contemporary 'hybrid' face-to-face/cell-phone conversations to interviews with Donald Trump and 'The Wire'. Explores what these conversations tell us about social life and how it changes, about people's concerns, cultural difference, and the diversity of ways of using language that is a hallmark of American society. Three lecture hours a week for one semester. Communication Studies 359C and 367 (Topic: Inside the American Conversation) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 359H. Honors Tutorial Course: Reading.**

Intensive reading and research as planned by the departmental honors committee. Individual instruction. Prerequisite: Upper-division standing and admission to the Communication Studies Honors Program.

### **CMS 359T. How People Talk.**

Explore how people creatively use, manipulate, and re-invent language when they talk to each other. Examine qualitative research methods, including conversation and discourse analysis, interactional sociolinguistics, ethnography of speaking, and microethnography. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 360. Analyzing Social Interaction.**

Introduction to concepts and research methods related to the study of how verbal and nonverbal communication is used in everyday situations. Includes collecting and analyzing sound and video data. Designed to help students develop skills in interpreting human social interactions. Three lecture hours a week for one semester. Communication Studies 360 and 367 (Topic: Language and the Body in Social Interaction) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 360R. Virtual Rhetoric.**

Examine how the universal presence of visual imagery makes it difficult to critically evaluate the images we see. Practice evaluating visual arguments to become a more critical consumer of visual communication. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 362D. Decolonizing Communication Studies.**

Examine the intersections of race, ethnicity, nationality, language, gender, and other aspects of identity marginalization related to communication theories and practices. Survey theories of decolonization and how to apply those in communication studies. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 362E. Environmental Communication.**

Explore various environmental philosophies as they relate to communication contexts. Assess how communication plays a role in environmental issues such as journalism and news reporting, sustainability, consumerism, politics, environmental organizations, and ecotourism. Examine how environmental theories and communication contexts play out in local, national, and international debates and

contexts. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 363C. Communication and Sports.**

Explore interpersonal, mediated, organizational, and public communication in sports. Examine foundational myths and metaphors that demonstrate the various ways in which sport is used to communicate in public life. Three lecture hours a week for one semester. Communication Studies 363C and 367 (Topic: Communication and Sports) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 363P. Politics and Protest in Sports.**

Examine history to understand how and why sports can be powerful for contemporary political communication and symbolism. Three lecture hours a week for one semester. Communication Studies 363P and 367 (Topic: Politics/Protest in Sports) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 364K. Gender and Communication.**

Focuses on how communication influences ideas about sex, gender, and identity, from interpersonal relationships to the mass media, and from legislative debates to social movements. Three lecture hours a week for one semester. Communication Studies 364K and 367 (Topic: Gender and Communication) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 164M, 264M, 364M. Pre-Graduate School Mentorship.**

Introduction for undergraduates to graduate study in a discipline of their choosing. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. With consent of the department chair, may be repeated for credit, but no more than three hours may be taken. Prerequisite: Consent of instructor.

### **CMS 365K. Male-Female Communication.**

Same as Women's and Gender Studies 345 (Topic 21: Male-Female Communication). Studies of speech patterns related to the concepts of male and female, including sexism in speaking, patterns of male and female speaking, patterns of listening to males and females, speech in courtship and family, speech and sexual discrimination in careers. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **CMS 365L. Communication, Controversy, and Citizenship.**

Designed to help students develop the listening, speaking, and argumentation skills used to deliberate over controversial and sensitive subjects. Deliberations focus primarily on the meaning of citizenship. Three lecture hours a week for one semester. Communication Studies 365L and 367 (Topic: Communication, Controversy, and Citizenship) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 366. Rhetoric, Love, and Democracy.**

Covers ideas about human symbolism and discourse; focuses on the effects of rhetorical perspectives on how people make meaning of the world. Three lecture hours a week for one semester. Communication Studies 366 and 367 (Topic: Love, Democracy, and Rhetoric) may not both be counted. Prerequisite: Upper-division standing.

### **CMS 366C. Celebrity Culture.**

Examines the importance of fame and celebrity throughout the nineteenth, twentieth, and twenty-first centuries, in relation to education, entertainment, and politics. Three lecture hours a week for one semester. Communication Studies 366C and 367 (Topic: Celebrity Culture) may not both be counted. Prerequisite: Upper-division standing.

**CMS 366D. Rhetoric of Horror.**

A survey of horror studies keyed specifically to rhetorical issues, or the ways in which horror literature, cinema, and television influence people by rehearsing social problems in disguise. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**CMS 366F. Rhetoric of Film.**

Film theory and history taught from a rhetorical perspective. Covers the film industry, technology, and the elements of narrative, image, and sound. Emphasis on theory about film and film criticism. Three lecture hours a week for one semester. Communication Studies 366F and 367 (Topic: Rhetoric of Film) may not both be counted. Prerequisite: Upper-division standing.

**CMS 366M. Rhetoric and Popular Music.**

Explores music and its relation to identity; how gender, race, and sexual identity are constructed with and within musical texts; meanings and importance of authenticity; and the effectiveness of music as a political tool. Three lecture hours a week for one semester. Communication Studies 366M and 367 (Topic: Rhetoric and Popular Music) may not both be counted. Prerequisite: Upper-division standing.

**CMS 366R. Religious Communication and Paranormalism.**

Explores secular and religious instances of ambivalence, and its uses and effects. Three lecture hours a week for one semester. Communication Studies 366R and 367 (Topic: Rhetoric and Religion) may not both be counted. Prerequisite: Upper-division standing.

**CMS 366S. Science Fiction and Communication.**

Examine major concepts in science fiction, with an emphasis on science fiction film adaptation (from novel to screen). Explore theories of communication implied by science fiction. Three lecture hours a week for one semester. Communication Studies 366S and 367 (Topic: Comm & Science Fiction) may not both be counted. Prerequisite: Upper-division standing.

**CMS 367. Topics in Communication Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

**Topic 1: Applied Interpersonal Communication.**

**Topic 2: Campaign Communication.**

**Topic 3: Communication and Thought.** Investigates the emergence of collaborative thought from human communication.

**Topic 5: Ethnography of Live Music in Austin.** Explores music and musicians in Austin, with a focus on ethnographic research through observation, interviews, analysis, and writing.

**Topic 6: Pragmatism and Group Dynamics.** Explores how individual beliefs and expectations determine the quality of group communication.

**CMS 370K, 670K. Internship in Communication Studies.**

Restricted to communication studies majors. Internships to be arranged by student and approved by instructor. Focuses on career goals of students in communication positions with public and private organizations. For 370K, an average of 10 hours of work a week, for a total of at least 150 hours a semester or summer session; for 670K, an average of 20 hours of work a week, for a total of at least 300 hours a semester or summer session. Offered on the pass/fail basis only. Prerequisite: Upper-division standing; twelve semester hours of communication studies with a grade of at least C-; and a University grade point average of at least 2.25.

**CMS 371D. Difficult Conversations.**

Explores the interpersonal, social, and language factors that impact difficult conversations. Three lecture hours a week for one semester. Communication Studies 367 (Topic: Difficult Conversations) and 371D may not both be counted. Prerequisite: Upper-division standing.

**CMS 371K. Practicum in Conflict Mediation.**

Provides hand on training and practice in conflict intervention techniques, including various forms of mediation, facilitation and dialogue. Two lecture hours and three discussion hours a week for one semester. Prerequisite: Upper-division standing.

**CMS 171M. Communication Studies Internship.**

Internship and discussion hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Communication Studies 370K; consent of departmental internship coordinator; and completion of departmental requirements for enrollment in an internship course.

**CMS 372D. The Politics of National Memory.**

Explores issues of power in our nation's capital. Students study Washington, DC via visits to sites around the city. One three-hour field trip a week for one semester. Taught in Washington, DC. Communication Studies 372D and 374D may not both be counted. Prerequisite: Consent of the department.

**CMS 372K. Advanced Organizational Communication.**

In-depth discussion and treatment of advanced organizational communication topics, including socialization and role development, workplace attachments, organizational culture, ethics, structure, conflict, power, decision making and empowerment, technology, and various forms of external communication with relevant organizational stakeholders. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Communication Studies 313M with a grade of at least C-.

**CMS 372T. Time Matters.**

An exploration of twentieth and twenty-first century time management issues resulting from the development of communication technologies. Subjects include the concept of twenty-four-hour, seven-day-a-week availability; information overload; increased work hours; sleep deprivation; hurry sickness; multitasking; the human experience of time across diverse social, cultural, and historical contexts; and other time-related issues that shape, and are shaped by, communication behaviors. Three lecture hours a week for one semester. Communication Studies 367 (Topic: Time Matters) and 372T may not both be counted. Prerequisite: Upper-division standing.

**CMS 373D. Advocacy and Politics.**

An introduction to the issues faced when advocating for an issue, idea, or one's self. The course aims to have students grasp concepts they will see and experience during their internship in Washington, DC. Eight conference hours a day for six days, for the equivalent of three lecture hours a week for one semester. Taught in Washington, DC. Prerequisite: Consent of the department.

**CMS 177K, 377K, 477K. Faculty-Initiated Research.**

Supervised research on a project designed by a faculty member. Individual instruction. No more than six semester hours in the following courses may be counted: Communication Studies 177K, 377K, 477K, 178K, 278K, 378K, 478K, 578K, 678K. Prerequisite: Upper-division standing, twelve semester hours of coursework in communication studies, a University grade point average of at least 2.50, and consent of instructor and the department.

### **CMS 178K, 278K, 378K, 478K, 578K, 678K. Student-Initiated Research.**

Supervised independent research on a project initiated, designed, and implemented by the student. Student secures consent of a faculty member willing to supervise the project prior to registering. Individual instruction. No more than six semester hours in the following courses may be counted: Communication Studies 177K, 377K, 477K, 178K, 278K, 378K, 478K, 578K, 678K. Prerequisite: Upper-division standing, twelve semester hours of coursework in communication studies, a University grade point average of at least 2.50, and consent of instructor and the department; Communication Studies 177K, 377K, 477K is recommended.

### **CMS 379H. Honors Tutorial Course: Special Project.**

The writing of a thesis or the presentation of a creative project; final comprehensive examination. Individual instruction. Prerequisite: Communication Studies 359H.

## **Graduate Courses**

### **CMS 180E, 280E, 380E, 480E. Conference Course in Communication Studies.**

Readings in the literature of communication studies designed to expand the graduate student's opportunity for individual consultation both in research and in informational aspects of the work. One, two, three, or four conference hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **CMS 081M. Introduction to Graduate Studies in Human Communication.**

Discussion of communication research, theory, and professional development. One lecture hour a week for one semester. Prerequisite: Admission to the graduate program in communication studies.

### **CMS 383K. Communication Theory.**

Survey of philosophical and language-based approaches to communication; theory construction, research practices, scholarly writing. Three lecture hours a week for one semester. Prerequisite: Graduate standing. Some sections also require consent of instructor or the graduate adviser; these are identified in the Course Schedule.

### **CMS 384K. Communication and Ethnography.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 3: Microethnography of Interaction.** Introduction to the study of details of human interaction: the moment-by-moment organization of speech and embodied communication; the roles of different media of communication, such as language, gesture, and space; the construction of context; uses of the material environment; and the distribution of information in collaborative work settings.

**Topic 4: Communication and Ethnography.** Studies the use of language and communication in ethnographic methods, data collected, and in final reports in a broad range of approaches such as observation and participant-observation, field notes, surveys, interviews of various kinds, textual analysis, and experimental interventions.

### **CMS 386H. Seminar in Health Communication.**

Theory and research in health communication. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing. Some sections may also require consent of instructor or the graduate adviser.

**Topic 1: Managing Health Information.** Introduction to research and theories that examine why and how people exchange, conceal, and otherwise interact with health-related information. Explores

the antecedents, processes, and outcomes of communicating about matters of health and illness, with a focus on implications for personal well-being, relational quality, and public health. Communication Studies 386H (Topic 1) and 386P (Topic: Managing Health Information) may not both be counted.

### **Topic 2: Interdisciplinary Seminar in Health Communication.**

Exploration of the interdisciplinary nature of health communication from an ecological perspective, ranging from intra-personal and interpersonal factors through the roles of populations and policies. Examination of the contributions to health communication from diverse disciplines including healthcare, public health, communication, and psychology. Explores issues related to research, practice, leadership, and partnerships. Additional prerequisite: For masters students, consent of instructor.

**Topic 3: Communicating with Patients.** Examine communication research, theory, and skill development relevant to health provider and patient encounters of all kinds. Additional prerequisite: Graduate standing.

### **CMS 386K. Theories of Interpersonal Communication.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing. Some sections also require consent of instructor or the graduate adviser; these are identified in the Course Schedule.

**Topic 1: Interpersonal Communication Theory.** Exploration of theoretical perspectives such as general systems theory; symbolic interactionism; rules theory; theories of language and nonverbal coding; theories of meaning; theories of information processing; and theories of persuasion. Theories pertinent to interpersonal, group, and mass interaction.

**Topic 4: Discourse Analysis.** Examines similarities and differences in the main kinds of discourse analysis and their basic assumptions and typical questions. Designed to develop skills at examining a piece of text or lecture to produce persuasive scholarly analysis.

### **CMS 386L. Group Communication.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing. Some sections also require consent of instructor or the graduate adviser; these are identified in the Course Schedule.

**Topic 1: Group Communication Processes.** Study of theory and research in the dynamics of small groups, with emphasis on the interaction of message variables with other variables such as leadership, affiliation, cohesiveness, and social power.

**Topic 3: Communicating in Groups and Teams.** Focuses on the concepts and theories of communicative processes in task-oriented groups and work teams. Readings cover theory and research related to communication problems, dynamics, and practices in group and team settings. May also include the study of team development, decision making, and trends in group communication research.

### **CMS 386N. Research in Communication Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Quantitative Research Methods.** Broad coverage of social scientific techniques for collecting and analyzing communication data; includes measurement, design, and other areas. Some sections focus on organizational research.

**Topic 2: Qualitative Research Methods.** The use of observational and interviewing research techniques for studying human communication.

### **CMS 386P. Issues in Interpersonal Communication.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing. Some sections also require consent of instructor or the graduate adviser.

**Topic 1: Nonverbal Communication.** Current theory and research in such areas as involvement and intimacy, gender, touch, space, environment, nonverbal behavior in children, appearance, and lying. Various methods and measurement techniques for assessing eye gaze, body motion, facial actions, vocal signals, and multichannel events.

**Topic 5: Negative Interpersonal Communication.** An overview of negative features of communication in interpersonal relationships. Examines avoidance, secrets, conflict, relational transgressions, negative emotions, and aggression and abuse.

**Topic 6: Dark Side of Interpersonal Communication.** Provides an overview of issues related to the "dark side" of communication in interpersonal relationships. Subjects include undesired features of interpersonal relationships, seemingly productive communication patterns that are dysfunctional, as well as seemingly destructive patterns that are functional. Communication Studies 386P (Topic: Dark Side of Interpersonal Communication) and 386P (Topic 6) may not both be counted.

**Topic 7: Stereotyping and Prejudice in Interpersonal Communication.** Examines problems posed by stereotyping and prejudice in interpersonal communication, and the research and theory aimed at reducing their impact. Designed to provide opportunities to seek constructive ways of defining and addressing stereotyping and prejudice; emphasis on recent research in the formation, maintenance, and application of stereotypes.

**Topic 8: Metaphor in Communication.** Examines the conceptual structure and expressive forms of the metaphor. Includes the study of classical and contemporary treatment of metaphor in linguistics, philosophy, and rhetoric. Also includes recent social scientific research on the use of figurative devices, such as metaphor, analogy, idiom, hyperbole, and euphemism, in strategic communication, specifically in managerial communication, political speeches, and religious discourse.

**Topic 9: Perspective Taking.** Examines social scientific research and theories that illuminate human ability to understand or adopt the perspective of others.

**Topic 10: Stress and Coping.** Exploration of how people interact with each other and with their environments during times of change and stress, including the emotions, cognitions, and behaviors that occur when people talk about upsetting or traumatic events and circumstances. Communication Studies 386P (Topic: Stress & Coping) and 386P (Topic 10) may not both be counted.

### **CMS 386R. Issues in Relational Communication.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Communication in Relationships.** Theories of development and change; research methods; relationship types; gender and roles; emotion; self-disclosure; secrets; lying; compliments; conflict; complaints; persuasion; dissolution processes; rejuvenating, repairing, and maintaining relationships.

**Topic 2: Family Communication.** Communication and attraction, courtship, marriage, the role of children in the marital relationship, sibling relationships, the effect of spouses' occupations on the family, and dysfunctional families.

### **CMS 386S. Communication, Cognition, and Emotion.**

The cognitive elements involved in social interaction, such as memory, comprehension, plans, decision making, and schemas. Three lecture

hours a week for one semester. Prerequisite: Graduate standing. Some sections also require consent of instructor or the graduate adviser; these are identified in the Course Schedule.

### **CMS 388C, 688C, 988C. Doctoral Comprehensive Examination Preparation.**

Restricted enrollment; contact the department for permission to register. Research and reading in preparation for doctoral comprehensive examinations in communication studies. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **CMS 389C. Seminar in Peace and Conflict.**

A survey of the literature and research in the communication of peace and conflict. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing. Some topics also require consent of instructor or the graduate adviser.

**Topic 1: Conflict and Communication.** Focus on the relationships between social structures and communication as they relate to conflict. Explores research on interpersonal conflict, theory and research on intercultural/-social communication, identity, and language. Analyze how gender, race, culture, region, age, class & sexual orientation, national identities, and so on are developed & reflected in communication. Only one of the following may be counted: Communication Studies 386P (Topic: Conflict and Communication), 389C (Topic: Communication & Conflict), 389C (Topic 1).

### **CMS 090F. Research Internship.**

Participation in faculty-supervised research during the second full year of doctoral study. The equivalent of one lecture hour a week for one semester. Prerequisite: Graduate standing and eighteen semester hours of graduate credit at the doctoral level.

### **CMS 390M. Seminar in Language, Culture, and Interaction.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; some sections also require consent of instructor or the graduate adviser.

**Topic 2: Intercultural Communication.** A selective and critical overview of current approaches to intercultural communication in disciplines such as communication studies, sociology, sociolinguistics, conversation analysis, and anthropology. Only one of the following may be counted: Communication Studies 383L (Topic: Intercultural Communication), 390M (Topic: Intercultural Communication), 390M (Topic 2).

**Topic 3: The Body in Communication.** Exploration of embodied interaction as 'intercorporeality' and provides students with a methodology for research on bodily practices of communication and social action. Communication Studies 390M (Topic: Body in Communication) and 390M (Topic 3) may not both be counted.

**Topic 4: Conversation Analysis.** The foundations of an interaction-based understanding of language. Texts reflect the evolution of the conversation-analytic paradigm of interaction and language study, and students explore the core organizations that conversation analysts have investigated: turn-taking, repair, turn-construction/action-design, recipient-design, and others. Only one of the following may be counted: Communication Studies 390M (Topic: Conversation Analysis), 390M (Topic 1), 390M (Topic 4).

**Topic 5: Language.** Introduction to the evolution, structure, and cultural foundations of human language, grounded in advanced contemporary work in anthropology, communication studies, and linguistics.

**Topic 6: Analyzing Embodied Communication.** Exploration of embodied interaction as 'intercorporeality' and provides students with

a methodology for research on bodily practices of communication and social action. Communication Studies 390M (Topic: Analyzing Embodied Communication) and 390M (Topic 6) may not both be counted.

### **CMS 390N. Political Discourse.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 2: Rhetoric of Social Movements.** Philosophies, strategies, and effects of modern sociopolitical and religious movements designed to produce change.

**Topic 3: Campaign Communication.** An introduction to research surrounding the actors and texts of political campaigns. Covers voters, candidates, consultants, new constituencies, advertisements, debates, speeches, news coverage, party conventions, and new media environments. Focuses on how political discourse affects political life in the United States.

**Topic 4: Politics, Media, and Society.** Examines political life in the United States in relation to television and new media.

**Topic 5: Politics, Media, and the Individual.** Current research and theory in the area of media and politics with particular emphasis on individual-level effects.

**Topic 6: Communication and Public Opinion.** Explores questions concerning communication, the media, and public opinion. Theoretical and empirical research from sociology, political science, social psychology, and mass communication may be discussed. Communication Studies 390N (Topic: Communication & Public Opinion) and 390N (Topic 6) may not both be counted.

**Topic 7: Political Language.** Explore an overview of political language, including questions such as: What makes political language "political?" Has such language changed in character over time? Do political styles differ from culture to culture? Do the mass media change how politicians talk? How are social media affecting citizens' patterns of political engagement? Communication Studies 390N (Topic: Political Language) and 390N (Topic 7) may not both be counted.

### **CMS 390P. Rhetorical Theory.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Contemporary Rhetorical Theory.** Investigation of recent definitions, issues, and trends in rhetorical theory, with emphasis on the philosophical bases of rhetoric and the relationship of rhetoric to other disciplines.

**Topic 4: Burke and Symbolic Form.** Covers a selection of books by rhetorical theorist Kenneth Burke, as well as books and articles by recent scholars that use his ideas.

**Topic 5: Foundations of Rhetorical Theory.** Examines historical writings about rhetoric in the Western tradition, up through the Enlightenment. Covers various important figures in the history of rhetoric, including Plato, the sophists, Aristotle, Cicero, Quintilian, Augustine, Christine de Pizan, Vico, and Ramus.

**Topic 6: Rhetoric of Style.** A consideration of social style, including dress, entertainment, vehicles, and living arrangements as a system of communication. Special emphasis on the expressive and practical functions of such symbolic displays.

**Topic 7: Rhetoric and Ideology.** Explores Marxist contributions to rhetorical theory and criticism, with emphasis on ideology and hegemony.

**Topic 8: Rhetoric of Publics and Counterpublics.** Investigation of the role of rhetoric in public life in capitalism in history and today. Covers the roles of rhetoric and rhetorical criticism in the production and maintenance of publics, and discusses the formation and activities of social movements.

**Topic 9: Narrative, Myth, and Rhetoric.** Engages two important and interrelated areas of study in rhetoric: narrative and myth. Explores the psychological foundations of myths, how mythic criticism might proceed, as well as critiques of mythic criticism from a variety of disciplines.

**Topic 10: History of Communicative Inquiry.** Explore the conceptual and disciplinary history of "the object" of a given academic field and the various ways in which subjects have conceived of the object, from the "reason" of philosophers to what counts as knowledge in the humanities and social sciences. Communication Studies 390P (Topic: History of Comm Inquiry) and 390P (Topic 10) may not both be counted.

### **CMS 390R. Seminar in Rhetorical Criticism.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Basic Rhetorical Criticism.** Elementary methods of analyzing public discourse, including the ways and the reasons that rhetorical analysis is attempted.

**Topic 2: Advanced Rhetorical Criticism.** Survey of six popular schools of thought, including dramatism, Marxism, and structuralism, and their implications for textual analysis.

**Topic 3: Feminist Theory and Rhetorical Criticism.** In-depth consideration of the premises underlying American and European feminism and the effects of such premises on critical experience. Special attention to the ways contemporary texts become gendered.

**Topic 4: Rhetoric and Popular Culture.** Survey of the ways film, television, popular literature, and consumer culture influence our attitudes and values. Consideration of a wide variety of contemporary theorists as well as experience in analyzing contemporary textual artifacts.

**Topic 6: The Object.** Investigation of conceptual and disciplinary anxieties about the object of speech in relation to the history of communication studies, and the deliberate jettisoning of the object in relationship to the history of cultural studies.

**Topic 7: The Subject.** Survey of contemporary theory with attention to subjectivity. Authors may include Alain Badiou, Judith Butler, Jodi Dean, Gilles Deleuze, Rene Descartes, Michel Foucault, Immanuel Levinas, Karl Marx, Friedrich Nietzsche, and Slavoj Zizek.

**Topic 8: Idiom of Haunting.** Examines haunting as a central experience of modern subjectivity rooted in the ontotheological concept of communication. Explores, through the idiom of haunting and ghosts, how the arrival of postmodernity (particularly in respect to mass media technology) has altered how we think about communication and subjectivity in both popular and scholarly ways.

**Topic 9: Rhetoric and Psychoanalysis.** A survey of the various schools of psychoanalysis, and the ways scholars have related psychoanalysis to the object of rhetoric.

**Topic 10: Theories of Subjectivity.** Survey of contemporary theory with attention to subjectivity. Authors may include Alain Badiou, Judith Butler, Jodi Dean, Gilles Deleuze, Rene Descartes, Michel Foucault, Immanuel Levinas, Karl Marx, Friedrich Nietzsche, and Slavoj Zizek. Only one of the following may be counted: Communication Studies 390R (Topic: The Subject), 390R (Topic 7), 390R (Topic 10).

### **CMS 390S. Seminar in Organizational Communication.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Narrative Communication in Organizations.** Current theories of narrative and their applications to organizations. Topics include gossip, day-to-day news, and dramatic enactments of organizational communication.

**Topic 2: Power and Politics in Organizational Communication.**

The communication implications of sociological and managerial approaches to the study of power and politics, with emphasis on ideas about structure, culture, ideology, information, conformity, voice, and dissent.

**Topic 6: Social Network Analysis.** Focus on quantitatively and qualitatively mapping and measuring the connections, relationships, and flows between entities, such as individuals, teams, groups, organizations, and other information sources. Communication Studies 390S (Topic: Social Network Analysis) and 390S (Topic 6) may not both be counted.

**Topic 7: On Time.** Introduction to the field of chronemics, the study of time as it is bound with communication, via a broad survey of literature across several disciplines. A range of contemporary communication challenges, as well as opportunities for positive communication and organizational scholarship will be interrogated. Communication Studies 390S (Topic: Time Matters) and 390S (Topic 7) may not both be counted.

**Topic 8: Communicating Knowledge.** A broad range of theoretical approaches and empirical research related to the communication of knowledge, including the study of both organizations and processes of organizing among workers. Subjects include: communities of practice, boundary objects, innovation, knowledge management, transactive memory, expertise, and ICT use. Communication Studies 390S (Topic: Communicating Knowledge) and 390S (Topic 8) may not both be counted.

**Topic 9: Health, Safety, and Technology in Organizations.** Examination of the theoretical and empirical research that bridges between organizational, health, and emergency communication with a focus on the role technology plays in these contexts. Communication Studies 390S (Topic 9) and 392P (Topic: Health, Safety, and Technology in Organizations) may not both be counted.

**Topic 10: Survey of Organizational Communication.** Explores contemporary issues and processes in organizational communication. Graduate students summarize research and conduct original research in an organization. Communication Studies 390S (Topic: Survey of Organizational Communication) and 390S (Topic 10) may not both be counted.

**Topic 11: Measurement Workshop: Scale Development and Instrument Design.** Provides in-depth instruction on issues related to scale development and questionnaire design, ranging from establishing validity to increasing response rate.

**Topic 12: Engaged Communication Scholarship.** Explore the theories and methods helpful during engaged research projects. Includes practical theory (e.g., action research, communication design, grounded practical theory) and research methods common to consulting and engaged scholarship (e.g., ethnographic interviewing, survey design, organizational shadowing, and natural experiments). Communication Studies 390S (Topic: Engaged Communication Scholarship) and 390S (Topic 12) may not both be counted.

**CMS 390T. Organizational Communication Theory.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; some topics may require consent of instructor or the graduate adviser.

**Topic 2: Organizational Communication: Macro.** An introduction to selected macro-level or systemic variables in organizations, such as structure, technology, and environments, and to the ways these variables relate to organizational communication processes.

**Topic 3: Postmodern Organizational Communication Theory.** An attempt to integrate the concern in cultural studies for structure with the stream of organizational theory that focuses on chaos. Readings include Clifford and Markus, Clifford, Deleuze and Guattari, March and Olsen, Weick.

**Topic 4: Foundations of Organizational Communication Theory.**

Introduction to the major approaches of understanding organizational communication. Examines the theoretical background and analytic skills to navigate tensions among varied approaches at micro-and-macro-levels; explores contemporary scholarship in organizational communication research in a historical context. Communication Studies 390T (Topic: Foundations of Organizational Communication Theory) and 390T (Topic 4) may not both be counted.

**Topic 5: Careers: Theory and Practice.** Examination of the current interdisciplinary definitions, theories, and practices regarding careers and work in contemporary society. Addresses subjects such as employability and/or entrepreneurship, the effect of contemporary technologies, internal/subjective v external/objective success, and work/life balance. Communication Studies 390T (Topic: Careers: Theory and Practice) and 390T (Topic 5) may not both be counted.

**CMS 390U. Consultation in Organizations.**

A review of social science literature and its application to problem solving and organizational development in field settings. Three lecture hours a week for one semester. Prerequisite: Graduate standing. Some sections also require consent of instructor or the graduate adviser; these are identified in the Course Schedule.

**CMS 392P. Seminar in Communication Technology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing. Some sections also require consent of instructor or the graduate adviser; these are identified in the Course Schedule.

**Topic 3: Communication in Virtual Groups.** Examines how people think, feel, and communicate in geographically distributed groups using new technologies. Covers impression formation, impression management, anonymity and social identity, group norms, liking, conformity, trust, conflict, building common ground, and social influence processes.

**Topic 4: Communication Technology Use in Organizations.** Examines the theoretical and empirical work on the communicative functions of technology in the workplace.

**Topic 5: Computer-Mediated Communication Models and Methods.** Examines the theoretical and methodological assumptions of computer-mediated communication research. Topics include online impression formation and impression management, online romantic relationships, digital deception, online identity shift effects, and the effects of perceived anonymity when using new communication technologies.

**Topic 6: Grant Writing in Communication.** Discussion of the grant writing process, including reviewing actual grant proposals for analysis and critique.

**CMS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in communication studies and consent of the graduate adviser; for 698B, Communication Studies 698A.

**CMS 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in communication studies and consent of the graduate adviser.

### **CMS 398T. Supervised Teaching in Communication Studies.**

Teaching communication studies under supervision. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **CMS 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Community and Regional Planning Courses**

## **Community and Regional Planning: CRP**

### **Lower-Division Courses**

### **Upper-Division Courses**

#### **CRP 369K. Principles of Physical Planning.**

Same as Urban Studies 328C. Introductory course in the physical dimension of urban planning. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 369J, Urban Studies 328C, 352 (Topic 6), or Community Regional Planning 369K. Prerequisite: For students in the School of Architecture: Architecture 333 with a grade of at least C and upper-division standing; for others, upper-division standing.

## **Graduate Courses**

### **CRP 380F. Foundations of Planning.**

Conceptual foundations of community and regional planning. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of graduate adviser.

**Topic 1: Planning History, Theory, and Ethics.**

**Topic 2: Foundations of Planning Law.** Restricted to community and regional planning majors. Community and Regional Planning 380F (Topic 2) and 381 (Topic 2: Planning Law) may not both be counted.

**Topic 3: Public Economics and Finance.** Restricted to community and regional planning majors.

### **CRP 180W, 380W. Topics in Disaster Recovery.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate Standing.

### **CRP 381M. Foundational Methods in Planning.**

Restricted to students admitted to the Community and Regional Planning program. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Quantitative Methods.** Community and Regional Planning 381M (Topic 1) and 386 (Topic 2) may not both be counted.

**Topic 2: Qualitative and Participatory Methods.** Community and Regional Planning 381 (Topic: Participatory Methods in Community Planning) and 381M (Topic 2) may not both be counted.

### **CRP 382C. Physical Planning and Design.**

Subjects may include place-making, landscape and urban design, and physical planning and design at the national, regional, or local level. Three lecture hours a week for one semester. Some topics may require additional studio hours. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Urban Design Practice.**

**Topic 2: Design for Planners I.**

**Topic 3: Design for Planners II.**

**Topic 4: Urban Land Institute Workshop.**

**Topic 5: Garden City to New Community.**

**Topic 6: Urban Landscapes and Place-Making.**

**Topic 7: Spatial Analysis and Design.**

**Topic 9: Social Life of Public Places.**

**Topic 10: Principles of Physical Planning.**

**Topic 11: The Future: Views in Planning.**

**Topic 12: Geodesign.**

### **CRP 383. Environment and Natural Resources.**

Seminars and workshops on subjects including environmental and ecological analysis and planning topics. Workshops are based on active research or cooperation with public or private clients. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Techniques in Environmental Analysis.**

**Topic 2: Coastal Zone Planning.**

**Topic 3: Environmental Impact Assessment.**

**Topic 4: Disasters and Resilience: Planning and Response.**

**Topic 6: Urban Environmental Analysis.**

**Topic 7: Introduction to Urban Ecology.**

**Topic 12: Environmental Law and Public Health.** Community and Regional Planning 381 (Topic 9) and 383 (Topic 12) may not both be counted.

**Topic 13: Land Use and Environmental Dispute Resolution.** Only one of the following may be counted: Community Regional Planning 381 (Topic 5), 383 (Topic: Land Use & Envir Conf Resolutn), and 383 (Topic 13). Additional prerequisite: Consent of the graduate adviser.

**Topic 14: Bioregional Planning.** Community Regional Planning 383 (Topic: Bioregional Planning) and 383 (Topic 14) may not both be counted. Additional prerequisite: Consent of the graduate adviser.

**Topic 15: Brownfields.** Community and Regional Planning 383 (Topic: Brownfield Redevelopment) and 383 (Topic 15) may not both be counted. Additional prerequisite: Graduate Standing.

**Topic 16: Green and Gray Infrastructure.** Community and Regional Planning 383 (Topic: INFRASTRUCTURE GREEN/GREY) and 383 (Topic 16) may not both be counted. Additional prerequisite: Graduate Standing.

### **CRP 384. Transportation.**

Neighborhood, city, and regional transportation policy and practice. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of graduate adviser.

**Topic 1: Urban Transportation Planning.**

**Topic 3: Planning for Accessibility.**

**Topic 4: Land Use and Transportation Planning.**

**Topic 5: International Transportation Issues.**

**Topic 6: Metropolitan Transportation Studies with Geographic Information Systems.**

**Topic 7: Transit-Oriented Development.**

**Topic 9: Transportation Planning and Policy.** Community and Regional Planning 384 (Topic: Transportatn Planning/Policy) and 384 (Topic 9) may not both be counted.

**Topic 10: Bicycle and Pedestrian Transit Planning.** Community and Regional Planning 384 (Topic: Bicycle/Ped Transit Plannng) and 384 (Topic 10) may not both be counted.

**Topic 11: Megaregional Planning.** Community and Regional Planning 384 (Topic: MEGAREGION: PLAN/POL TRANSPORT) and 384 (Topic

11) may not both be counted. Additional prerequisite: Graduate Standing.

### **CRP 385C. Economic and Community Development.**

Seminars and workshops on subjects including theory and analysis of social and economic sustainability of communities and regions and community led responses and initiatives. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Prerequisite: Graduate standing.

**Topic 1: Urban and Regional Theory.**

**Topic 2: Urban Economic Development Policy.**

**Topic 3: Sustainable Urban Economic Development Planning.**

**Topic 4: Community Development.**

**Topic 5: Development and Planning in Latin America.**

**Topic 6: International Sustainable Social Development.**

**Topic 7: Social, Spatial, and Environmental Justice.**

**Topic 8: Built Environment and Public Health.**

**Topic 9: Sustainable Cities.**

**Topic 11: City and Regional Planning in Texas.**

**Topic 12: Building a Sustainable Region.**

**Topic 15: Migratory Urbanism.**

### **CRP 685D. Planning Studio.**

An integrative and comprehensive planning studio project course, involving application of theory, research, fieldwork, and oral, graphic, and written communication. Six lecture hours and four laboratory hours a week for one semester. With consent of the graduate adviser, may be repeated for credit. Prerequisite: Graduate standing.

### **CRP 386. Applied Planning Techniques.**

Quantitative and qualitative methods of planning analysis, spatial analysis and mapping, and visual communication techniques. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of graduate adviser.

**Topic 1: Quantitative Methods.** Restricted to students admitted to the community and regional planning program.

**Topic 2: Applied Methods.** Restricted to students admitted to the community and regional planning program. Additional prerequisite: Community and Regional Planning 386 (Topic 1).

**Topic 4: Qualitative Research Methods.**

**Topic 5: Urban Geographic Information Systems.**

**Topic 6: Introduction to Visual Communications and Geographic Information Systems for Planners.** Restricted to students admitted to the community and regional planning program.

**Topic 8: Research Design.**

**Topic 9: Sustainable Land Use Planning.**

**Topic 11: Geographic Information Systems in Planning.** Community and Regional Planning 386 (Topic: Geo Info Systems in Planning) and 386 (Topic 11) may not both be counted.

**Topic 12: Financing Real Estate Projects: Non-Profit and For-Profit.** Community and Regional Planning 386 (Topic: Fin Real Est: NonProf/Prof Dev) and 386 (Topic 12) may not both be counted.

### **CRP 387C. Infrastructure Planning.**

Policy and techniques for providing soft and hard urban infrastructure; infrastructure planning and analysis. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Infrastructure Planning and Development.**

**Topic 2: Water Resources Planning.**

**Topic 3: Urban Parks and Open Space Planning.**

**Topic 5: Urban Agricultural Systems.**

**Topic 6: Resource Management and Recycling.**

**Topic 7: Race and the Built Environment.** Community and Regional Planning 387C (Topic: Race and the Built Environment) and 387C (Topic 7) may not both be counted. Additional prerequisite: Graduate Standing.

### **CRP 388. Housing.**

Planning and housing policies and programs related to production and access to housing; community strategies for meeting housing needs. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Housing Demand and Production.**

**Topic 2: Housing and Culture.**

**Topic 3: Affordable Housing Planning and Policy.**

**Topic 4: Affordable Housing Development and Design.**

**Topic 5: Housing Practice and Public Policy in Latin America.**

### **CRP 389C. Land Use and Land Development.**

Analysis of land use patterns, planning principles, and strategies for achieving sustainability goals, and private land development principles and practices. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Planning for Land Development.**

**Topic 2: Research in Land Development.**

**Topic 3: Landscape and Culture.**

**Topic 4: Images of the City.**

### **CRP 390. Conference Course in Community and Regional Planning.**

Readings and case studies in current topical issues in planning and planning education. Conference course. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **CRP 391D. Doctoral Seminar.**

Advanced theory and research methodology. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the community and regional planning doctoral program.

**Topic 1: Colloquium on Planning Issues.** Offered on the letter-grade basis only.

**Topic 2: Planning Theory Seminar.** Offered on the letter-grade basis only.

**Topic 3: Research Methodology Seminar.** Offered on the letter-grade basis only.

### **CRP 392C. Historic Preservation.**

Includes topics in architectural history, with a focus on the twentieth century and Modernism; architectural conservation; preservation planning and cultural resource management; and design. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: History of American City Building.** Only one of the following may be counted: Architecture 388R (Topic: History of American City-Building), Community and Regional Planning 389C (Topic: History of American City-Building), 392C (Topic: History of American City-Building), 392C (Topic 1).

**Topic 2: Preservation History and Theory.**

**Topic 3: National Registry of Historic Places Documentation.**

**Topic 4: Research Seminar in Sustainable Preservation.**

**Topic 5: Historic Preservation: Planning and Practice.**

**Topic 6: Historic Preservation: Preservation Law.** Community and Regional Planning 381 (Topic 3: Preservation Law) and 392C (Topic 6) may not both be counted. Additional prerequisite: Consent of the graduate adviser.

### **CRP 395C. Planning Studio.**

An integrative and comprehensive planning studio project course, involving application of theory, research, fieldwork, and oral, graphic, and written communication. Three lecture hours and two laboratory hours a week for one semester. With consent of the graduate adviser, may be repeated for credit. Prerequisite: Graduate standing and consent of the graduate adviser.

### **CRP 395D. Planning Studio.**

Continuation of Community and Regional Planning 395C. Three lecture hours and two laboratory hours a week for one semester. With consent of the graduate adviser, may be repeated for credit. Prerequisite: Graduate standing, Community and Regional Planning 395C, and consent of the graduate adviser.

### **CRP 396. Independent Research in Community and Regional Planning.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **CRP 197, 397. Planning Internship.**

Includes placement with a public or private planning agency, faculty supervision, and presentation of report. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **CRP 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in community and regional planning and consent of the graduate adviser; for 698B, Community and Regional Planning 698A.

### **CRP 398R. Master's Professional Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in community and regional planning and consent of the graduate adviser.

### **CRP 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Comparative Literature Courses**

## **Comparative Literature: C L**

### **Lower-Division Courses**

#### **C L 301. Introduction to Comparative Literature.**

Reading and interpretation of literary texts in translation drawn from cultures around the world, focusing on methods of criticism and analysis. Three lecture hours a week for one semester.

#### **C L 305. Topics in Comparative Literature.**

Study of masterpieces of world literature; of different literary genres; and the relationship between literature and other disciplines such as psychology, philosophy, and film. Three lecture hours a week for one

semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Forbidden Romance in Modern Chinese Literature.** Same as Asian Studies 301M (Topic 13). Introduction to modern Chinese literature from the late Qing Dynasty (latter half of the nineteenth century) to the present. Only one of the following may be counted: Asian Studies 301M (Topic: Forbidden Romance in Modern Chinese Literature), 301M (Topic 13), Comparative Literature 305 (Topic: Forbidden Romance in Modern Chinese Literature), 305 (Topic 1).

**Topic 2: The Vampire in Slavic Cultures.** Same as European Studies 307 (Topic 1) and Russian, East European, and Eurasian Studies 302 (Topic 1). Examines the vampire in the cultures of Russia and Eastern Europe, including manifestations in literature, religion, art, film, and common practices from its origins to present. Only one of the following may be counted: Comparative Literature 305 (Topic: The Vampire in Slavic Cultures), 305 (Topic 2), European Studies 307 (Topic: The Vampire in Slavic Cultures), 307 (Topic 1), Russian, East European, and Eurasian Studies 302 (Topic: The Vampire in Slavic Cultures), 302 (Topic 1), Slavic 301 (Topic: The Vampire in Slavic Cultures), 301 (Topic 1).

**Topic 3: Movies Go To War.** Same as American Studies 315C, European Studies 307 (Topic 4), and German, Scandinavian, and Dutch Studies 311C. A comparison of films from various nations about major twentieth century wars to the historical facts of the conflicts as practicums in critical comparative analysis of histories as representations. Only one of the following may be counted: American Studies 315 (Topic: Movies Go to War, World War I to Vietnam), 315C, Comparative Literature 305 (Topic: Movies Go to War, World War I to Vietnam), 305 (Topic 3), European Studies 307 (Topic: Movies Go to War, World War I to Vietnam), 307 (Topic 4), German, Scandinavian, and Dutch Studies 311C, Germanic Civilization 311 (Topic 2: Movies Go to War, World War I to Vietnam).

**Topic 4: Grimms' Fairy Tales.** Same as European Studies 307 (Topic 5) and German, Scandinavian, and Dutch Studies 311E. Reading and discussion of tales from the Grimms' collection, as well as some of the relevant secondary literature. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 305 (Topic: Grimms' Fairy Tales), 305 (Topic 4), European Studies 307 (Topic: Grimms' Fairy Tales), 307 (Topic 5), German, Scandinavian, and Dutch Studies 310 (Topic: Grimms' Fairy Tales), 311E.

### **C L 305C. Dissent in Twentieth-Century Ukraine.**

Same as European Studies 307 (Topic 10) and Russian, East European, and Eurasian Studies 302F. Survey Ukrainian authors from the 1920s to the present, examining writings from "Executed Renaissance," underground literature, and postmodernism. Focus specifically on works that challenge the paradigm of socialist realism by discussing forbidden subjects (famine, religion, Gulag) or accentuating themes that are not considered "major" (personal life). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 305 (Topic: Dissent 20th-Cent Ukraine), 305C, European Studies 307 (Topic: Dissent 20th-Cent Ukraine), 307 (Topic 10), Russian, East European, and Eurasian Studies 302 (Topic: Dissent 20th-Cent Ukraine), 302F.

### **C L 305D. Afro-Brazilian Diaspora.**

Same as African and African Diaspora Studies 315 and Latin American Studies 310C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315, 317E (Topic: Afro-Brazilian Diaspora), Comparative Literature 305 (Topic: Afro-Brazilian Diaspora), 305D, Latin American Studies 310 (Topic: Afro-Brazilian Diaspora), 310C.

### **C L 305S. The Soviet Hero in Literature and Culture.**

Same as Russian, East European, and Eurasian Studies 302G. Consider Soviet Culture by examining "heroes" from both real life and works of literature, cinema, and folklore. Explore the period from the Russian 19th century throughout the Soviet Era. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 305 (Topic: Soviet Hero in Lit/Culture), 305S, Russian, East European, and Eurasian Studies 302 (Topic: Soviet Hero in Lit/Culture), 302G.

### **C L 315. Masterworks of World Literature.**

Introduction to masterpieces of the world's literary traditions, emphasizing historical, generic, and thematic connections. Three lecture hours a week for one semester. Some sections require an additional discussion hour a week. Only one of the following may be counted: Comparative Literature 315, English 303D, (603B), 316N, Tutorial Course 303D, (603B). Prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

### **C L 318Q. Supervised Research.**

Individual instruction.

## **Upper-Division Courses**

### **C L 320. Conference Course in Comparative Literature.**

Independent study of literary projects under supervision of professors in comparative literature. Conference course. Prerequisite: Six semester hours of upper-division coursework in literature, of which three hours must be in a classical or foreign language.

### **C L 323. Topics in Comparative Literature.**

Study of masterpieces of world literature; of different literary genres; of the relationship between literature and other disciplines, such as psychology, philosophy, and film; and of special topics of a comparative nature. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 3: Autobiography: A Modern Literary Species.** Same as Middle Eastern Studies 342 (Topic 20). Only one of the following may be counted: Comparative Literature 323 (Topic 3), Middle Eastern Studies 342 (Topic 20), Women's and Gender Studies 340 (Topic: Autobiography: A Modern Literary Species). Additional prerequisite: Upper-division standing.

**Topic 4: Self-Revelation in Women's Writing.** Same as African and African Diaspora Studies 330N, Middle Eastern Studies 342 (Topic 19), and Women's and Gender Studies 340 (Topic 14). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330N, 372E (Topic 8), Comparative Literature 323 (Topic 4), Middle Eastern Studies 342 (Topic 19), Women's and Gender Studies 340 (Topic 14).

**Topic 6: Caribbean Literature.** Same as African and African Diaspora Studies 330Q and English 343C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330Q, 374F (Topic 7), Comparative Literature 323 (Topic 6), English 343C, 360L (Topic 2). Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**Topic 8: Bulgakov's Master and Margarita.** Same as Russian, East European, and Eurasian Studies 325 (Topic 29). Explores the novel in the context of other literary works by Bulgakov and its varied sources in world literature, music, and the visual arts. Only one of the following may be counted: Comparative Literature 323 (Topic: Bulgakov's Master and Margarita), 323 (Topic 8), Russian 360 (Topic: Bulgakov's Master and Margarita), 360 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic: Bulgakov's Master and Margarita), 325 (Topic 29). Additional prerequisite: Upper-division standing.

**Topic 10: Contemporary Scandinavian Stories.** Same as European Studies 347 (Topic 16) and German, Scandinavian, and Dutch Studies 341J. An analysis of contemporary Scandinavian literature and films, how they reflect Scandinavian reality, and how Scandinavian identity is created through sports, food, and politics. Only one of the following may be counted: Comparative Literature 323 (Topic: Contemporary Scandinavian Stories), 323 (Topic 10), European Studies 347 (Topic: Contemporary Scandinavian Stories), 347 (Topic 16), German, Scandinavian, and Dutch Studies 341J, Germanic Civilization 323E (Topic: Contemporary Scandinavian Stories), Scandinavian 373 (Topic: Contemporary Scandinavian Stories). Additional prerequisite: Upper-division standing.

**Topic 11: Films of Ingmar Bergman.** Same as European Studies 347 (Topic 13) and German, Scandinavian, and Dutch Studies 331C. An introduction to the films of Ingmar Bergman. Only one of the following may be counted: Comparative Literature 323 (Topic: Films of Ingmar Bergman), 323 (Topic 11), English 322 (Topic 18), European Studies 347 (Topic: Films of Ingmar Bergman), 347 (Topic 13), German, Scandinavian, and Dutch Studies 331C, Scandinavian 327 (Topic 9). Additional prerequisite: Upper-division standing.

**Topic 12: Hans Christian Andersen.** Same as European Studies 347 (Topic 14) and German, Scandinavian, and Dutch Studies 341E. Introduction to such Hans Christian Andersen tales as "The Little Mermaid," "The Ugly Duckling," and "The Emperor's New Clothes." Examination of their author and the romantic period in which they were written, as well as their historical, philosophical, and literary context. Only one of the following may be counted: Comparative Literature 323 (Topic: Hans Christian Andersen), 323 (Topic 12), English 322 (Topic 19), European Studies 347 (Topic: Hans Christian Andersen), 347 (Topic 14), German, Scandinavian, and Dutch Studies 341E, Germanic Civilization 323E (Topic 4), Scandinavian 373 (Topic 4). Additional prerequisite: Upper-division standing.

**Topic 13: Introduction to Arabic Literature.** Same as Islamic Studies 373 (Topic 1), Middle Eastern Languages and Cultures 321 (Topic 1), and Middle Eastern Studies 342 (Topic 1). General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era. Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Arabic Literature), 323 (Topic 13), Islamic Studies 373 (Topic 1), Middle Eastern Languages and Cultures 321 (Topic 1), Middle Eastern Studies 342 (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 14: Isak Dinesen/Karen Blixen.** Same as European Studies 347 (Topic 15), German, Scandinavian, and Dutch Studies 341G, and Women's and Gender Studies 345 (Topic 13). An introduction to the twentieth-century Danish author Karen Blixen, focusing on her major themes such as gender and destiny, and examining her role as a literary figure. Only one of the following may be counted: Comparative Literature 323 (Topic: Isak Dinesen/Karen Blixen), 323 (Topic 14), European Studies 347 (Topic: Isak Dinesen/Karen Blixen), 347 (Topic 15), German, Scandinavian, and Dutch Studies 341G, Women's and Gender Studies 345 (Topic 13). Additional prerequisite: Upper-division standing.

**Topic 15: Israel Through Its Literature.** Same as Jewish Studies 363 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic 5), and Middle Eastern Studies 342 (Topic 5). Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Israeli Literature), Comparative Literature 323 (Topic 15), English 322 (Topic: Introduction to Israeli Literature), Jewish Studies 363 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic 5), Middle Eastern Studies 342 (Topic 5). Additional prerequisite: Upper-division standing.

**Topic 16: The Scandinavian Contribution to World Literature.** Same as European Studies 347 (Topic 17) and German, Scandinavian, and Dutch Studies 341K. Close readings of the most influential Scandinavian texts, including works by Nobel Prize-winning authors

such as Knut Hamsun and Selma Lagerlof, as well as the playwrights August Strindberg and Henrik Ibsen while addressing important themes caused by the revolutionary transition to modernity in Scandinavia around 1900, including emancipation of women and sexuality. Only one of the following may be counted: Comparative Literature 323 (Topic: The Scandinavian Contribution to World Literature), 323 (Topic 16), European Studies 347 (Topic: The Scandinavian Contribution to World Literature), 347 (Topic 17), German, Scandinavian, and Dutch Studies 341K, Germanic Civilization 323E (Topic: The Scandinavian Contribution to World Literature), Scandinavian 373 (Topic: The Scandinavian Contribution to World Literature). Additional prerequisite: Upper-division standing.

**Topic 17: Social Dramas of Henrik Ibsen.** Same as European Studies 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, and Women's and Gender Studies 345 (Topic 14). A detailed introduction to Ibsen's social dramas (1877-1899), emphasizing their unity as a prolonged commentary on the society of his era and the variety of its human problems. Special emphasis on subjects such as: the family and the home; the public world of reputation, work, and citizenship; the predicaments of men and women in a male-dominated society; and the motives of our interventions into the lives of others. Only one of the following may be counted: Comparative Literature 323 (Topic: Social Dramas of Henrik Ibsen), 323 (Topic 17), English 322 (Topic 17), European Studies 347 (Topic: Social Dramas of Henrik Ibsen), 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, Women's and Gender Studies 345 (Topic 14). Additional prerequisite: Upper-division standing.

**Topic 18: Squaring the Vienna Circle.** Same as European Studies 347 (Topic 20), German, Scandinavian, and Dutch Studies 361F, and Philosophy 329F. Traces the origin of the Vienna Circle of Logical Empiricism in nineteenth-century Europe, and introduces central texts and problems of intellectual history and historical epistemology at the roots of today's analytic philosophy. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Squaring the Vienna Circle), 323 (Topic 18), European Studies 347 (Topic: Squaring the Vienna Circle), 347 (Topic 20), German, Scandinavian, and Dutch Studies 361F, Germanic Civilization 362E (Topic: Squaring the Vienna Circle), Philosophy 327 (Topic: Squaring the Vienna Circle), 329F, 354 (Topic: Squaring the Vienna Circle). Additional prerequisite: Upper-division standing.

**Topic 19: Women and the Holocaust.** Same as European Studies 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Jewish Studies 363 (Topic 11), and Women's and Gender Studies 340 (Topic 50). Introduction to both the history of Jewish and German women during World War II and the Holocaust, and to women's narratives and self-representations of this period. Historical sources, memoirs, films, and interviews will be used as source material. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women's Narratives of the Holocaust and World War II), 323 (Topic 19), European Studies 346 (Topic: Women's Narratives of the Holocaust and World War II), 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Germanic Civilization 323E (Topic: Women's Narratives of the Holocaust and World War II), Jewish Studies 363 (Topic 11), Women's and Gender Studies 340 (Topic: Women's Narratives of the Holocaust and World War II), 340 (Topic 50). Additional prerequisite: Upper-division standing.

**Topic 20: Rebels and Revolutionaries in Russian History and Literature.** Same as History 361E and Russian, East European, and Eurasian Studies 325 (Topic 24). Study of fictional and real rebels and revolutionaries across almost a century of Russian literature. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 20), History 361E, 362G (Topic 15), Russian 356 (Topic 4), Russian, East European,

and Eurasian Studies 325 (Topic 24). Additional prerequisite: Upper-division standing.

**Topic 27: The Major Works of Tolstoy.** Same as Russian, East European, and Eurasian Studies 325 (Topic 16). Explores Russian writer Lev Nikolaevich Tolstoy, particularly his progression from idealizing family life and the Russian state to renouncing sexual love and national allegiances. Only one of the following may be counted: Comparative Literature 323 (Topic: The Major Works of Tolstoy), 323 (Topic 27), Russian 360 (Topic: Majors Works of Tolstoy), 360 (Topic 2), Russian, East European, and Eurasian Studies 325 (Topic: The Major Works of Tolstoy), 325 (Topic 16). Additional prerequisite: Upper-division standing.

**Topic 29: The Russian Novel.** Same as Core Texts and Ideas 347 and Russian, East European, and Eurasian Studies 325 (Topic 9). A survey of classic Russian authors as well as experimental works from the nineteenth through the twenty-first century. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 29), Core Texts and Ideas 345 (Topic 6), 347, English 322 (Topic 37), European Studies 347 (Topic 22), Russian 356 (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic 9). Additional prerequisite: Upper-division standing.

**Topic 30: The Major Works of Dostoevsky.** Same as Core Texts and Ideas 346 and Russian, East European, and Eurasian Studies 325 (Topic 10). Explores the dilemmas of homicide, suicide, patricide, and redemption in the novels of Fyodor Dostoevsky. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 30), Core Texts and Ideas 345 (Topic 5), 346, European Studies 347 (Topic 10), Russian 360 (Topic 1), Russian, East European and Eurasian Studies 325 (Topic 10). Additional prerequisite: Upper-division standing.

**Topic 31: War and Revolution in Russian Literature and Culture.** Same as Core Texts and Ideas 348 and Russian, East European, and Eurasian Studies 325 (Topic 18). Examines Russian narratives of war and revolution as represented in fiction, cinema, and journalism. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 31), Core Texts and Ideas 345 (Topic 8), 348, Russian 356 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic 18). Additional prerequisite: Upper-division standing.

**Topic 33: Feminism and Film: Women Filmmakers in Northern and Central Europe.** Same as European Studies 347 (Topic 24), German, Scandinavian, and Dutch Studies 331D, and Women's and Gender Studies 340 (Topic 65). An introduction to the work of women filmmakers from Scandinavia, Germany, as well as to the viewing and interpretation of films in general. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women Filmmakers in Northern and Central Europe), 323 (Topic 33), European Studies 347 (Topic: Women Filmmakers in Northern and Central Europe), 347 (Topic 24), German, Scandinavian, and Dutch Studies 330 (Topic: Women Filmmakers in Northern and Central Europe), 331D, Women's and Gender Studies 340 (Topic: Women Filmmakers in Northern and Central Europe), 340 (Topic 65). Additional prerequisite: Upper-division standing.

**Topic 34: Russian Myths and Folktales.** Same as Anthropology 322T and Russian, East European, and Eurasian Studies 325 (Topic 22). Examination of the Russian folktale, its roots in ancient, pre-Christian Slavic religious tradition, its connections with other forms of folklore such as myth and legend, and its transformation in modern Russian literature. Subjects include the continuing influence of folklore explored through various aspects of Russian culture, including literature, music, ballet, film, and popular culture. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322T, 325L (Topic 12), Comparative Literature 323 (Topic 34), Russian 330 (Topic 9), Russian, East European and Eurasian

Studies 325 (Topic 22). Additional prerequisite: Upper-division standing.

**Topic 36: Love in the East and West.** Same as Core Texts and Ideas 343, Middle Eastern Languages and Cultures 321 (Topic 25), and Middle Eastern Studies 342 (Topic 33). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 36), Core Texts and Ideas 343, 345 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 25), Middle Eastern Studies 342 (Topic 33). Additional prerequisite: Upper-division standing.

**Topic 37: The Qur'an.** Same as Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, and Women's and Gender Studies 340 (Topic 54). The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upper-division standing.

**Topic 40: Holocaust Aftereffects.** Same as European Studies 346 (Topic 23), German, Scandinavian, and Dutch Studies 360 (Topic 1), Jewish Studies 365 (Topic 14), Religious Studies 357V, and Women's and Gender Studies 340 (Topic 66). Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 40), European Studies 346 (Topic 23), German, Scandinavian, and Dutch Studies 360 (Topic 1), Jewish Studies 365 (Topic 14), Liberal Arts Honors 350 (Topic: Holocaust Aftereffects), 351Q, Religious Studies 357 (Topic 18), 357V, Women's and Gender Studies 340 (Topic: Holocaust Aftereffects), 340 (Topic 66). Additional prerequisite: Upper-division standing.

**Topic 41: Decoding Classical Chinese Poetry.** Same as Asian Studies 373C. Introduction to the classical Chinese poetic tradition from the seventh century B.C.E. through the ninth century C.E., focusing on the literary, cultural, historical, social, political, philosophical, and religious background against which representative works arose. Conducted in English and all readings will be in English translation. Knowledge of the Chinese language is not required. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 10), 373C, Comparative Literature 323 (Topic 41). Additional prerequisite: Upper-division standing.

**Topic 42: Anti-Semitism in History and Literature.** Same as European Studies 346 (Topic 29), German, Scandinavian, and Dutch Studies 361L, and Jewish Studies 364 (Topic 1). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Anti-Semitism in History and Literature), 346 (Topic 29), Comparative Literature 323 (Topic: Anti-Semitism in History and Literature), 323 (Topic 42), German, Scandinavian, and Dutch Studies 360 (Topic: Anti-Semitism in History and Literature), 361L, Jewish Studies 361 (Topic: Anti-Semitism in History and Literature), 364 (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 43: Vikings and Their Literature.** Same as European Studies 347 (Topic 35) and German, Scandinavian, and Dutch Studies 341L. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Vikings and Their Literature), Comparative Literature 323 (Topic: Vikings and Their Literature), 323 (Topic 43), English 322 (Topic: Vikings and Their Literature), European Studies 347 (Topic: Vikings and Their Literature), 347 (Topic 35), German, Scandinavian, and Dutch Studies 340 (Topic: Vikings

and Their Literature), 341L. Additional prerequisite: Upper-division standing.

**Topic 44: Berlin.** Same as European Studies 347 (Topic 34), German, Scandinavian, and Dutch Studies 361M, History 361F, and Urban Studies 326F. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Berlin), 323 (Topic 44), European Studies 347 (Topic: Berlin), 347 (Topic 34), German, Scandinavian, and Dutch Studies 360 (Topic: Berlin), 361M, History 361F, 362G (Topic: Berlin), 362G (Topic 17), Urban Studies 326F, 353 (Topic: Berlin), 353 (Topic 7). Additional prerequisite: Upper-division standing.

**Topic 45: Arendt and de Beauvoir.** Same as European Studies 347 (Topic 37), German, Scandinavian, and Dutch Studies 341M, and Women's and Gender Studies 340 (Topic 61). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Arendt And De Beauvoir), 323 (Topic 45), European Studies 347 (Topic: Arendt And De Beauvoir), 347 (Topic 37), German, Scandinavian, and Dutch Studies 340 (Topic: Arendt And De Beauvoir), 341M, Women's and Gender Studies 340 (Topic: Arendt And De Beauvoir), 340 (Topic 61). Additional prerequisite: Upper division standing.

**Topic 46: Exhibitions and Public Spectacle.** Same as European Studies 347 (Topic 41), Geography 320N, and German, Scandinavian, and Dutch Studies 361N. Investigate exhibits, world's fairs, museum, monuments, theme parks, and historical reconstructions from Europe and the US, with attention to images of how their sponsoring nations or other entities want to be seen. Examine evidence for both the good and bad sides of national pride and identity. Explore examples of how large-scale culture projects and the public interact. Consider the lasting marks left on the cities and countries sponsoring them. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Exhibitionism and Public Spectacle), 323 (Topic 46), European Studies 347 (Topic: Exhibitionism and Public Spectacle), 347 (Topic 41), Geography 320N, 356T (Topic: Exhibitionism and Public Spectacle), German, Scandinavian, and Dutch Studies 360 (Topic: Exhibitionism and Public Spectacle), 361N. Additional prerequisite: Upper division standing.

**Topic 47: Northern European Children's Literature.** Same as European Studies 347 (Topic 39) and German, Scandinavian, and Dutch Studies 341P. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Northern European Children's Literature), 323 (Topic 47), European Studies 347 (Topic: Northern European Children's Literature), 347 (Topic 39), German, Scandinavian, and Dutch Studies 340 (Topic: Northern European Children's Literature), 341P. Additional prerequisite: Upper division standing.

**Topic 48: Nobel Prizes: Literature and Politics.** Same as European Studies 347 (Topic 38) and German, Scandinavian, and Dutch Studies 341N. An introduction to Nobel Prize winning authors from northern Europe in the context of literary prizes and the politics of literary reputation. Analyze and compare literary works, set novels into historical context, investigate what popular and scholarly reviews do, and research in both popular and scholarly sources. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Nobel Prizes: Literature and Politics), 323 (Topic 48), European Studies 347 (Topic: Nobel Prizes: Literature and Politics), 347 (Topic 38), German, Scandinavian, and Dutch Studies 340 (Topic: Nobel Prizes: Literature and Politics), 341N. Additional prerequisite: Upper division standing.

**Topic 49: Northern European Comics.** Same as European Studies 347 (Topic 40) and German, Scandinavian, and Dutch Studies 341Q. A study of graphic novels from Scandinavia, Germany, and Holland to understand the art form of comics and the influence of the cultures in which they were produced. Readings, all in English, cover various genres and time periods. Three lecture hours a week for one semester.

Only one of the following may be counted: Comparative Literature 323 (Topic: Northern European Comics), 323 (Topic 49), European Studies 347 (Topic: Northern European Comics), 347 (Topic 40), German, Scandinavian, and Dutch Studies 340 (Topic: Northern European Comics), 340 (Topic 1), 341Q. Additional prerequisite: Upper division standing.

**Topic 50: Scandinavian Cinema Since 1980.** Same as European Studies 347 (Topic 36) and German, Scandinavian, and Dutch Studies 331E. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Scandinavian Cinema Since 1980), 323 (Topic 50), European Studies 347 (Topic: Scandinavian Cinema Since 1980), 347 (Topic 36), German, Scandinavian, and Dutch Studies 330 (Topic: Scandinavian Cinema Since 1980), 331E. Additional prerequisite: Upper division standing.

**Topic 51: Viking Language: Runes and Sagas.** Same as European Studies 347 (Topic 42) and German, Scandinavian, and Dutch Studies 361R. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Viking Language: Runes and Sagas), 323 (Topic 51), European Studies 347 (Topic: Viking Language: Runes and Sagas), 347 (Topic 42), German, Scandinavian, and Dutch Studies 360 (Topic: Viking Language: Runes and Sagas), 361R. Additional prerequisite: Upper division standing.

**Topic 52: Bad Language: Race, Class, and Gender.** Same as Mexican American Studies 363R, Russian, East European, and Eurasian Studies 325 (Topic 32), and Women's and Gender Studies 340 (Topic 74). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Bad Language: Race, Class, and Gender), Comparative Literature 323 (Topic: Bad Language: Race, Class, and Gender), 323 (Topic 52), Linguistics 350 (Topic: Bad Language: Race, Class, and Gender), Mexican American Studies 363R, 374 (Topic: Bad Language: Race, Class, and Gender), Russian 369 (Topic: Bad Language: Race, Class, and Gender), Russian, East European, and Eurasian Studies 325 (Topic: Bad Language: Race, Class, and Gender), 325 (Topic 32), Women's and Gender Studies 340 (Topic: Bad Language: Race, Class, and Gender), 340 (Topic 74). Additional prerequisite: Upper-division standing.

**Topic 54: Russian Cinema From Potemkin to Putin.** Same as Russian, East European, and Eurasian Studies 325 (Topic 34). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Russian Cinema From Potemkin to Putin), 323 (Topic 54), Russian, East European, and Eurasian Studies 325 (Topic: Russian Cinema From Potemkin to Putin), 325 (Topic 34). Additional prerequisite: Upper division standing.

**Topic 55: Russian Fairytales.** Same as Russian, East European, and Eurasian Studies 325 (Topic 35). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Russian Fairytales), 323 (Topic 55), Slavic 324 (Topic: Russian Fairytales), Russian, East European, and Eurasian Studies 325 (Topic: Russian Fairytales), 325 (Topic 35). Additional prerequisite: Upper-division standing.

**Topic 56: German Scholars: US Exile.** Same as American Studies 321L, European Studies 346 (Topic 34), and German, Scandinavian, and Dutch Studies 361Q. Examine the migration of established European intellectuals into the US, due to the Second World War. Explore how they worked against their persecutors for their own cultural heritage and to influence US intellectual life. Investigate the ethical dilemmas faced in transplanting their lives and projects into new contexts. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: German Scholars: US Exile), 321L, Comparative Literature 323 (Topic: German Scholars: US Exile), 323 (Topic 56), European Studies 346 (Topic: German Scholars: US Exile), 346 (Topic 34), German, Scandinavian, and Dutch Studies 360 (Topic: German Scholars: US Exile), 361Q. Additional prerequisite: Upper-division standing.

**Topic 57: Cultural Memory and the Classic Chinese Novel.** Same as Asian Studies 379 (Topic 13). Examine the metaphors and mythology from Chinese cultural memory that are present in classic novels, within literary and socio-historical contexts. Explore a cross-section of influential works from classical literature and the major founding schools of Chinese thought. Only one of the following may be counted: Asian Studies 379 (Topic: Cul Mem/Classic Chinese Nov), 379 (Topic 13), Comparative Literature 323 (Topic: Cul Mem/Classic Chinese Nov), 323 (Topic 57), Liberal Arts Honors 350 (Topic: Cul Mem/Classic Chinese Nov). Additional prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

**Topic 58: Russian and Mexican Men in Popular Culture.** Same as Mexican American Studies 337D and Russian, East European, and Eurasian Studies 325 (Topic 40). Study representations of masculinity in products of Mexican and Russian popular culture at the end of the twentieth and the beginning of the twenty-first centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Russian/Mexican Men in Pop Cul), 323 (Topic 58), Mexican American Studies 337D, 374 (Topic: Russian/Mexican Men in Pop Cul), Russian, East European, and Eurasian Studies 325 (Topic: Russian/Mexican Men in Pop Cul), 325 (Topic 40), Women's and Gender Studies 340 (Topic: Russian/Mexican Men in Pop Cul). Additional prerequisite: Upper-division standing.

**Topic 59: The Ancient Historians.** Same as Ancient History and Classical Civilization 325 (Topic 13), Classical Civilization 322D, and Core Texts and Ideas 329. Examines the main works of ancient historiography, and provides grounding in the central issues with which these works engage. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 13), Classical Civilization 322 (Topic 13), 322D, Comparative Literature 323 (Topic 59), Core Texts and Ideas 329. Additional prerequisite: Upper-division standing.

**Topic 60: Danticat and Diaz.** Same as African and African Diaspora Studies 330S and English 349D. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330S, 372E (Topic: Danticat and Diaz), Comparative Literature 323 (Topic: Danticat and Diaz), 323 (Topic 60), English 349D, 349S (Topic: Danticat and Diaz). Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**Topic 61: Classic Lyric Poems.** Same as Middle Eastern Studies 342 (Topic 59). Only one of the following may be counted: Comparative Literature 323 (Topic: Classic Lyric Poems), 323 (Topic 61), Middle Eastern Studies 342 (Topic: Classic Lyric Poems), 342 (Topic 59). Additional prerequisite: Upper-division standing.

**Topic 62: Forugh Farrokhzad and Her Poetry.** Same as Middle Eastern Studies 342 (Topic 61) and Women's and Gender Studies 340 (Topic 79). Only one of the following may be counted: Comparative Literature 323 (Topic: Forugh Farrokhzad/Her Ptry), 323 (Topic 62), Middle Eastern Languages and Cultures 321 (Topic: Forugh Farrokhzad/Her Ptry), Middle Eastern Studies 342 (Topic: Forugh Farrokhzad/Her Ptry), 342 (Topic 61), Women's and Gender Studies 340 (Topic: Forugh Farrokhzad/Her Ptry), 340 (Topic 79). Additional prerequisite: Upper-division standing.

**Topic 63: Iranian and Iranian-American Identity.** Same as Middle Eastern Languages and Cultures 321C, Middle Eastern Studies 342 (Topic 62), and Women's and Gender Studies 340 (Topic 81). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Iran/Iranian-Amer Ident), 323 (Topic 63), Middle Eastern Languages and Cultures 321 (Topic: Iran/Iranian-Amer Ident), 321C, Middle Eastern Studies 342 (Topic: Iran/Iranian-Amer Ident), 342 (Topic 62), Women's and

Gender Studies 340 (Topic: Iran/Iranian-Amer Ident), 340 (Topic 81). Additional prerequisite: Upper-division standing.

**Topic 64: Israel and Palestine: A Cultural Perspective.** Same as Jewish Studies 363 (Topic 23), Middle Eastern Languages and Cultures 321 (Topic 40), and Middle Eastern Studies 342 (Topic 56). Only one of the following may be counted: Comparative Literature 323 (Topic: Israel/Palestine: Cultrl Persp), 323 (Topic 64), Jewish Studies 363 (Topic: Israel/Palestine: Cultrl Persp), 363 (Topic 23), Middle Eastern Languages and Cultures 321 (Topic: Israel/Palestine: Cultrl Persp), 321 (Topic 40), Middle Eastern Studies 342 (Topic: Israel/Palestine: Cultrl Persp), 342 (Topic 56). Additional prerequisite: Upper-division standing.

**Topic 65: Youth and Violence in the Middle East and Eurasia.** Same as Middle Eastern Studies 342 (Topic 64) and Russian, East European, and Eurasian Studies 325 (Topic 42). Only one of the following may be counted: Comparative Literature 323 (Topic: Youth/Violence Mid East/Eur), 323 (Topic 65), Middle Eastern Languages and Cultures 321 (Topic: Youth/Violence Mid East/Eur), Middle Eastern Studies 342 (Topic: Youth/Violence Mid East/Eur), 342 (Topic 64), Russian, East European, and Eurasian Studies 325 (Topic: Youth/Violence Mid East/Eur), 325 (Topic 42). Additional prerequisite: Upper-division standing.

**Topic 66: Twentieth-Century Persian Literature.** Same as Middle Eastern Studies 342 (Topic 63). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: 20th Cen Persian Literature), 323 (Topic 66), Middle Eastern Studies 342 (Topic: 20th Cen Persian Literature), 342 (Topic 63). Additional prerequisite: Upper-division standing.

**Topic 67: Diasporic Magic: Literature and Performance.** Same as African and African Diaspora Studies 330T. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330T, 374D (Topic: Diasporic Magic: Lit/Perfrm), Comparative Literature 323 (Topic: Diasporic Magic: Lit/Perfrm), 323 (Topic 67). Additional prerequisite: Upper-division standing.

**Topic 68: Home in Contemporary Black Fiction.** Same as African and African Diaspora Studies 330U. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330U, 374F (Topic: Home in Contemp Blk Fiction), Comparative Literature 323 (Topic: Home in Contemp Blk Fiction), 323 (Topic 68). Additional prerequisite: Upper-division standing.

**Topic 69: The Arts of Hip Hop.** Same as African and African Diaspora Studies 330I and American Studies 325I. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330G, 330I, 374D (Topic: Art, Theft, and Hip-Hop), American Studies 325 (Topic: Art, Theft, and Hip-Hop), 325D, 325I, Comparative Literature 323 (Topic: Art, Theft, and Hip-Hop), 323 (Topic 53), 323 (Topic 69). Additional prerequisite: Upper-division standing.

**Topic 73: Greek Tragedies and Postcolonial Dramas.** Same as African and African Diaspora Studies 330V and Theatre and Dance 357T (Topic 9). Study the adaptation of great dramatic literature of the Greek civilizations to their phenomenal evolution into popular African performances. Putting classical writings from Ancient Greek in dialogue with texts that formed the background of African anti-colonial revolutions, analyze how Africans have used these works to re-shape literary canon and given their world and their histories universal purchase. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330V, 374F (Topic: Greek Tragedy/Postcol Drama), Comparative Literature 323 (Topic: Greek Tragedy/Postcol Drama), 323 (Topic 73), Theatre and Dance 357T (Topic: Greek Tragedy/Postcol Drama), 357T (Topic 9). Additional prerequisite: For theatre

and dance majors, consent of instructor; for all others, upper-division standing.

### **C L 358Q. Supervised Research.**

Individual instruction. Prerequisite: Upper-division standing.

## **Graduate Courses**

### **C L 180K. Introduction to Comparative Literature.**

One-credit-hour proseminar in methods of study and research in comparative literature. One lecture hour a week for one semester. Required of first-semester graduate students in comparative literature. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in comparative literature and consent of the graduate adviser in comparative literature.

### **C L 380M. Problems in Translation.**

Detailed study of literary translations and of the translation process, and completion of one substantial translation. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser in comparative literature.

### **C L 381. The Comparative Study of Literary Periods and Movements.**

The study of literary periods, aspects of periods, or movements from a comparative point of view; topics include mystical literature of the Middle Ages and Renaissance humanism. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **C L 382. Topics in Comparative Literature.**

Study of genres, literary forms, the relationships of literature and other disciplines from a comparative point of view; topics include comedy, sensibility, and the East and the West. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **C L 385. Theories of Literary Criticism.**

Comparative study of theories of literary criticism in a broad historical perspective, including representative classic texts in critical theory. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **C L 386. Literature in a Comparative Context.**

A study of topics with a single primary language focus, using a strongly comparative approach. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser and instructor.

### **C L 390. Comparative Literary Theory and Poetics.**

Comparative study of major modern critical schools and figures in literary and cultural theory and criticism. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **C L 391L. Conference Course in Comparative Literature.**

Tutorial courses on individually designed basis available through the home departments of members of the comparative literature faculty. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser in comparative literature.

### **C L 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in comparative literature and consent of the graduate adviser; for 698B, Comparative Literature 698A and consent of the graduate adviser.

### **C L 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in comparative literature and consent of the graduate adviser.

### **C L 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Computational Engineering Courses**

## **Computational Engineering: COE**

### **Lower-Division Courses**

#### **COE 301. Introduction to Computer Programming.**

Same as Aerospace Engineering 301. Basic computer programming concepts applied to engineering computations. Development of structured solutions to engineering and mathematical problems and an understanding of coding practices. Programming in MATLAB and C++. Three lecture hours a week for one semester. Aerospace Engineering 301 and Computational Engineering 301 may not both be counted.

#### **COE 311K. Engineering Computation.**

Fundamental numerical methods and software tools used in engineering computation. Subjects include linear systems of equations, matrix computations, nonlinear equations, least squares approximations, interpolation, numerical integration and numerical solution of differential equations. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 211K, 311, Biomedical Engineering 313L, Computational Engineering 211K, 311K. Prerequisite: Aerospace Engineering 301 (or 201) or Computational Engineering 301 with a grade of at least C-; and credit with a grade of at least C- or registration for Mathematics 427J or 427K.

#### **COE 111L. Engineering Computation Laboratory.**

Restricted to computational engineering majors. Programming exercises and applications of numerical methods. One and one-half laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Aerospace Engineering 211K or Computational Engineering 211K.

### **Upper-Division Courses**

#### **COE 321K. Computational Methods for Structural Analysis.**

Same as Aerospace Engineering 321K. Matrix structural analysis of systems that can be idealized as being comprised of axial bar elements, beam elements, and frame elements. Notion of element-by-element assembly of the governing system of algebraic equations. A systematic introduction to (and use of) the fundamental idea of a weak statement of a boundary value problem, particularly as concerns the numerical treatment/approximation of such problems. Interpretation of the weak-statement in terms of the principle of virtual work. Galerkin's method as applied to structural analysis. An introduction to the classical Galerkin

finite element method with application to structures and plane elasticity. Energy principles and their utility in solving problems in solid mechanics, as well as their connection to the finite element method. Three lecture hours a week for one semester, with discussion hours to be arranged. Aerospace Engineering 321K and Computational Engineering 321K may not both be counted. Prerequisite: Computational Engineering 311K (or Aerospace Engineering 211K or Computational Engineering 211K); and Engineering Mechanics 319 with a grade of at least C- in each.

#### **COE 322. Scientific Computation.**

Restricted to Computational Engineering majors. Explores the basic tools needed for developing scientific computing software. These include advanced programming languages (e.g. C, C++, python), object oriented programming and data structures. Subjects may include abstract data types; creation, initialization, and destruction of objects; class hierarchies; polymorphism, inheritance and dynamic binding; generic programming using templates, linked lists, queues, stacks, trees and algorithms such as searching, sorting, and hashing. Three lecture hours a week for one semester. Computational Engineering 322 and Statistics and Data Sciences 322 may not both be counted. Prerequisite: Aerospace Engineering 301 (or 201) or Computational Engineering 301 with a grade of at least C-.

#### **COE 325L. Cooperative Engineering.**

Covers the work period of computational engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Computational Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Computational Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Computational Engineering 325LY and appointment for a full-time cooperative work tour.

#### **COE 225M. Cooperative Engineering.**

Covers the work period of computational engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Computational Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Computational Engineering 225MA and appointment for a full-time cooperative work tour.

#### **COE 125N. Cooperative Engineering.**

Covers the work period of computational engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Computational Engineering 325LZ or 225MB, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

#### **COE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Computational Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's International Engineering Education Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Aerospace Engineering and Engineering Mechanics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

### **COE 332. Software Engineering and Design.**

Restricted to computational engineering majors. Covers methods and tools for planning, designing, implementing, validating and maintaining large software systems. May include project work to build a software system as a team, using appropriate software engineering tools and techniques. Three lecture hours a week for one semester. Prerequisite: Computational Engineering 322 with a grade of at least C-.

### **COE 347. Introduction to Computational Fluid Dynamics.**

Development and implementation of finite-difference schemes for numerical solution of subsonic, transonic, and supersonic flows. Emphasis on convection and diffusion equations of fluid dynamics. Evaluation of accuracy, stability, and efficiency. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 347, Computational Engineering 347, Mechanical Engineering 369L. Prerequisite: Computational Engineering 311K (or Aerospace Engineering 211K or Computational Engineering 211K), and Aerospace Engineering 320 with a grade of at least C- in each.

### **COE 352. Advanced Scientific Computation.**

Restricted to computational engineering majors. Topics in advanced numerical methods and scientific computation. Subject matter may vary. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Mathematics 427J or 427K, and Computational Engineering 322 (or Statistics and Data Sciences 322) with a grade of at least C- in each; and Computational Engineering 311K (or Computational Engineering 211K) with a grade of at least C- or programming experience.

### **COE 371. Applied Mathematics I.**

Restricted to computational engineering majors. Subjects include real analysis of functions of one variable, linear operator theory, and ordinary differential equations. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; Mathematics 427J, 427L, and 362K with a grade of at least C- in each.

### **COE 372. Applied Mathematics II.**

Restricted to computational engineering majors. Subjects include elements of complex analysis, Fourier and Laplace transforms, partial differential equations, perturbation methods, analysis of functions of several variables. Three lecture hours per week for one semester. Prerequisite: Upper-division standing and Computational Engineering 371 with a grade of at least C-.

### **COE 373. Systems Engineering Design.**

Restricted to computational engineering majors. Introduction to systems engineering: the systems engineering process, requirements, design fundamentals, trade studies, cost and risk analyses, integration, technical reviews, case studies, and ethics. Includes written reports. Three lecture hours a week for one semester. Aerospace Engineering 374K and Computational Engineering 373 may not both be counted. Prerequisite: Upper-division standing; Statistics and Data Sciences 222 or 322 with a grade of at least C- and registration or credit with a grade of at least C- for Computational Engineering 352.

### **COE 374. Senior Design Project.**

Restricted to computational engineering majors. Design projects from multiple engineering disciplines done with teams of students, using computational methods for analysis and experimental data for validation; ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects. Three lecture hours a week for one semester. Prerequisite: Computational Engineering 352 with a grade of at least C-; Computational Engineering 321K or Computational Engineering 347 with a grade of at least C-; and upper-division standing.

### **COE 679H. Undergraduate Honors Thesis.**

Restricted to computational engineering majors. Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. Entails an oral presentation and a written thesis. Individual instruction for two semesters. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Computational Engineering 679HA and enrollment in the Engineering Honors Program.

### **COE 179K, 279K, 379K. Research in Computational Engineering.**

Restricted to computational engineering majors. Directed study or research in a selected area of computational engineering. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, a University grade point average of at least 3.00, selection of project, and consent of the faculty member directing project and the undergraduate adviser.

### **COE 179L, 279L, 379L, 479L. Topics in Computational Engineering.**

Current topics in computational engineering. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## **Graduate Courses**

### **Professional Courses**

# **Computational Science, Engineering, and Mathematics Courses**

## **Computational Science, Engineering, and Mathematics: CSE**

### **Lower-Division Courses**

### **Upper-Division Courses**

#### **CSE 370. Individual Reading and Research.**

Supervised study or research in a selected area of computational science, engineering, and mathematics by individual arrangement with a supervising instructor. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, a University grade point average of at least 3.00, selection of project, and consent of both the faculty member directing the project and the undergraduate adviser.

### **Graduate Courses**

#### **CSE 380. Tools and Techniques of Computational Science.**

Advanced introduction to the practical use of high performance computing hardware and software engineering principles for scientific technical computing. Topics include computer architectures, operating systems, programming languages, data structures, interoperability, and software development, management, and performance. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **CSE 382G. Computer Graphics.**

Same as Computer Science 384G. Advanced material in computer graphics, including in-depth treatments of techniques for realistic image synthesis, advanced geometric modeling methods, animation

and dynamic simulation, scientific visualization, and high-performance graphics architectures. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 382G and Computer Science 384G may not both be counted. Prerequisite: Graduate standing; and Computer Science 354 or another introductory course in computer graphics, or equivalent background and consent of instructor.

### **CSE 382M. Foundational Techniques of Machine Learning and Data Sciences.**

Introduction to computational and mathematical tools of data science. Cover statistical estimation and optimization algorithms, neural networks, geometry of high dimensional spaces, randomized methods, sparse approximation, and dimension reduction techniques. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 382M and 383M may not both be counted. Prerequisite: Graduate standing.

### **CSE 383C. Numerical Analysis: Linear Algebra.**

Same as Computer Science 383C, Mathematics 383E, and Statistics and Data Sciences 393C. Survey of numerical methods in linear algebra: floating-point computation, solution of linear equations, least squares problems, algebraic eigenvalue problems. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 383C, Computer Science 383C, Mathematics 383E, Statistics and Data Sciences 393C. Prerequisite: Graduate standing; Computer Science 367 or Mathematics 368K; and Mathematics 340L, 341, or consent of instructor.

### **CSE 383D. Numerical Analysis: Interpolation, Approximation, Quadrature, and Differential Equations.**

Same as Computer Science 383D, Mathematics 383F, and Statistics and Data Sciences 393D. Survey of numerical methods for interpolation, functional approximation, integration, and solution of differential equations. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 383D, Computer Science 383D, Mathematics 383F, Statistics and Data Sciences 393D. Prerequisite: Graduate standing; Computational Science, Engineering, and Mathematics 383C, Computer Science 383C, Mathematics 383E, or Statistics and Data Sciences 393C; and Mathematics 427K and 365C, or consent of instructor.

### **CSE 383K. Numerical Analysis: Algebra and Approximation.**

Same as Mathematics 387C. Advanced introduction to scientific computing, theory and application of numerical linear algebra, solution of nonlinear equations, and numerical approximation of functions. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 383K and Mathematics 387C may not both be counted. Prerequisite: Graduate standing, and consent of instructor or the graduate adviser.

### **CSE 383L. Numerical Analysis: Differential Equations.**

Same as Mathematics 387D. Advanced introduction to the theory and practice of commonly used numerical algorithms for the solution of ordinary differential equations, and elliptic, parabolic, and hyperbolic partial differential equations. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and Computer Science 383C, Mathematics 387C, or consent of instructor.

### **CSE 384K. Theory of Probability.**

Same as Mathematics 385C. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 384K and Mathematics 385C may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **CSE 384L. Theory of Probability.**

Same as Mathematics 385D. Continuation of Computational Science, Engineering, and Mathematics 384K and Mathematics 385C. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384L, Mathematics 384L, 385D. Prerequisite: Graduate standing; Computational Science, Engineering, and Mathematics 384K or Mathematics 385C; and consent of instructor.

### **CSE 384R. Mathematical Statistics I.**

Same as Mathematics 384C and Statistics and Data Sciences 384 (Topic 2). The general theory of mathematical statistics. Includes distributions of functions of random variables, properties of a random sample, principles of data reduction, an overview of hierarchical models, decision theory, Bayesian statistics, and theoretical results relevant to point estimation, interval estimation, and hypothesis testing. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384R, Mathematics 384C, Statistics and Data Sciences 384 (Topic 2). Prerequisite: Graduate standing; and Mathematics 362K and 378K, or consent of instructor.

### **CSE 384S. Mathematical Statistics II.**

Same as Mathematics 384D and Statistics and Data Sciences 384 (Topic 3). Continuation of Computational Science, Engineering, and Mathematics 384R and Mathematics 384C. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384S, Mathematics 384D, Statistics and Data Sciences 384 (Topic 3). Prerequisite: Graduate standing; Computational Science, Engineering, and Mathematics 384R, or Mathematics 384C; and Mathematics 362K and 378K, Statistics and Data Sciences 382, or consent of instructor.

### **CSE 384T. Regression Analysis.**

Same as Mathematics 384G and Statistics and Data Sciences 384 (Topic 4). Simple and multiple linear regression, inference in regression, prediction of new observations, diagnosis and remedial measures, transformations, and model building. Emphasis on both understanding the theory and applying theory to analyze data. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384T, Mathematics 384G, Statistics and Data Sciences 384 (Topic 4). Prerequisite: Graduate standing; and Mathematics 362K and 378K, Statistics and Data Sciences 382, or consent of instructor.

### **CSE 384U. Design and Analysis of Experiments.**

Same as Mathematics 384E and Statistics and Data Sciences 384 (Topic 6). Design and analysis of experiments, including one-way and two-way layouts; components of variance; factorial experiments; balanced incomplete block designs; crossed and nested classifications; fixed, random, and mixed models; and split plot designs. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384U, Mathematics 384E, Statistics and Data Sciences 384 (Topic 6). Prerequisite: Graduate standing; and Mathematics 362K and 378K, Statistics and Data Sciences 382, or consent of instructor.

### **CSE 385M. Methods of Mathematical Physics I.**

Same as Physics 381M. Theory of analytic functions; linear algebra and vector spaces; orthogonal functions; ordinary differential equations; partial differential equations; Green's functions; complex variables. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 385M and Physics 381M may not both be counted. Prerequisite: Graduate standing.

**CSE 385N. Methods of Mathematical Physics II.**

Same as Physics 381N. Continuation of Computational Science, Engineering, and Mathematics 385M and Physics 381M. Topology, functional analysis, approximation methods, group theory, differential manifolds. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 385N and Physics 381N may not both be counted. Prerequisite: Graduate standing; and Computational Science, Engineering, and Mathematics 385M or Physics 381M.

**CSE 385R. Real Analysis.**

Same as Mathematics 381C. Measure and integration over abstract spaces; Lebesgue's theory of integration and differentiation on the real line. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 385R and Mathematics 381C may not both be counted. Prerequisite: Graduate standing and consent of instructor or the graduate adviser.

**CSE 385S. Complex Analysis.**

Same as Mathematics 381D. Introduction to complex analysis. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 385S and Mathematics 381D may not both be counted. Prerequisite: Graduate standing and consent of instructor or the graduate adviser.

**CSE 386C. Methods of Applied Mathematics.**

Same as Mathematics 383C. Topics include basic normed linear space theory; fixed-point theorems and applications to differential and integral equations; Hilbert spaces and the spectral theorem; applications to Sturm-Liouville problems; approximation and computational methods such as the Galerkin, Rayleigh-Ritz, and Newton procedures. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 386C and Mathematics 383C may not both be counted. Prerequisite: Graduate standing.

**CSE 386D. Methods of Applied Mathematics.**

Same as Mathematics 383D. Topics include distributions, fundamental solutions of partial differential equations, the Schwartz space and tempered distributions, Fourier transform, Plancherel theorem, Green's functions, Sobolev spaces, weak solutions, differential calculus in normed spaces, implicit function theorems, applications to nonlinear equations, smooth variational problems, applications to classical mechanics, constrained variational problems. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 386D and Mathematics 383D may not both be counted. Prerequisite: Graduate standing; and Computational Science, Engineering, and Mathematics 386C or Mathematics 383C.

**CSE 386L. Mathematical Methods in Science and Engineering.**

Explore mathematical frameworks for understanding and solving practical problems. Examine basic concepts in multidimensional real analysis, ordinary differential equations and dynamical systems, elementary calculus of variations, Hilbert space theory and duality, Sturm-Liouville theory, Lax-Milgram and Babuska-Necas Theorems, and applications to partial differential equations. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 380P (Topic 2), Computational Science, Engineering, and Mathematics 386L, Engineering Mechanics 386L. Prerequisite: Graduate standing.

**CSE 386M. Functional Analysis in Theoretical Mechanics.**

Same as Engineering Mechanics 386M. An introduction to modern concepts in functional analysis and linear operator theory, with emphasis on their application to problems in theoretical mechanics; topological and metric spaces, norm linear spaces, theory of linear operators on

Hilbert spaces, applications to boundary value problems in elasticity and dynamical systems. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 386M and Engineering Mechanics 386M may not both be counted. Prerequisite: Graduate standing, Engineering Mechanics 386L, and Mathematics 365C.

**CSE 389C. Introduction to Mathematical Modeling in Science and Engineering I.**

First part of a two-part introduction to the elements of classical mechanics, physics, chemistry, and biology needed to begin work in computational engineering and sciences. Develops from first principles the classical mathematical theories underlying many of the models of physical phenomena important in modern applications. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**CSE 389D. Introduction to Mathematical Modeling in Science and Engineering II.**

Second part of a two-part introduction to elements of classical mechanics, physics, chemistry, and biology needed to work in computational engineering and sciences. Develops from first principles the classical mathematical theories underlying many of the models of physical phenomena important in modern applications. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and Computational Science, Engineering, and Mathematics 389C or the equivalent.

**CSE 190, 390. Individual Research.**

Individual study or research in computational science, engineering, and mathematics arranged by mutual agreement between student and supervising faculty member. Individual instruction. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**CSE 390T. Training in the Teaching of Computational Science, Engineering, and Mathematics.**

The equivalent of three lecture hours a week for one semester, arranged by mutual agreement between student and faculty member. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**CSE 392. Topics in Computer Science.**

Advanced topics in the theory and application of computer science. Recent topics include geometric modeling and visualization, and high-performance and parallel computing. Three lecture hours a week for one semester. Computational and Applied Mathematics 395T and Computational Science, Engineering, and Mathematics 392 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**CSE 393. Topics in Numerical Analysis.**

Advanced topics in the theory and application of numerical analysis. Recent topics include numerical methods for partial differential equations, computational problems in linear algebra, iterative methods and fast algorithms, numerical methods in functional approximation, and computational and variational methods for inverse problems. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**CSE 393F. Finite Element Methods.**

Same as Aerospace Engineering 384P (Topic 4) and Engineering Mechanics 394F. Derivation and implementation of the finite element method; basic coding techniques; application to problems of stress and diffusion. Three lecture hours a week for one semester. Only one of

the following may be counted: Aerospace Engineering 384P (Topic 4), Computational Science, Engineering, and Mathematics 393F, Engineering Mechanics 394F. Prerequisite: Graduate standing and consent of instructor.

### **CSE 393H. Advanced Theory of Finite Element Methods.**

Contemporary topics in the theory and application of finite element methods. Three lecture hours a week for one semester. Prerequisite: Graduate standing; Computational Science, Engineering, and Mathematics 393F or the equivalent; and Engineering Mechanics 386L or the equivalent.

### **CSE 393N. Numerical Methods for Flow and Transport Problems.**

Approximate solution methods for flow and transport problems in engineering and applied science. Finite element, finite difference, and residual methods for linear and nonlinear problems. Three lecture hours a week for one semester. Computational Science, Engineering and Mathematics 393N and Mathematics 393N may not both be counted. Prerequisite: Graduate standing.

### **CSE 394. Topics in Probability and Statistics.**

Advanced topics in the theory and application of probability and statistics. Recent topics include nonparametric statistics and advanced probability. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **CSE 396. Topics in Applied Mathematics.**

Advanced topics in the theory and application of applied mathematics. Recent topics have included partial differential equations, dynamical systems, kinetic theory, quantum mechanics, ergodic theory, statistical mechanics, Hamiltonian dynamics, nonlinear functional analysis, Euler and Navier-Stokes equations, microlocal calculus and spectral asymptotics, calculus of variations, and nonlinear partial differential equations. Three lecture hours a week for one semester. and Computational Science, Engineering, and Mathematics 396 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **CSE 397. Topics in Computational Science and Engineering.**

Advanced topics in the theory and application of computational science and engineering. Three lecture hours a week for one semester. and Computational Science, Engineering, and Mathematics 397 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **CSE 397H. Graduate Research Internship.**

Restricted to computational science, engineering, and mathematics majors. Practical work experience in a research/industrial setting. Internship to be arranged by student and approved by instructor. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of supervising faculty member.

### **CSE 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in computational science, engineering, and mathematics and consent of the graduate adviser; for 698B, Computational Science, Engineering, and Mathematics 698A.

### **CSE 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. Independent study. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in computational science, engineering, and mathematics and consent of the graduate adviser.

### **CSE 399W, 699W, 999W. Dissertation.**

Independent study. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Computer Science Courses**

## **Computer Science: C S**

### **Lower-Division Courses**

#### **C S 301K. Foundations of Logical Thought.**

Introductory logic in the context of computing; introduction to formal notations; basic proof techniques; sets, relations, and functions. Three lecture hours a week for one semester. Some sections also require one discussion hour a week.

#### **C S 302. Computer Fluency.**

An introduction to the fundamental concepts of computing: how computers work, what they can do, and how they can be used effectively. Some programming is required. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Credit for Computer Science 302 may not be earned after a student has received credit for Computer Science 303E, 312, 312H, 314, or 314H. May not be counted toward a degree in computer science.

#### **C S 303E. Elements of Computers and Programming.**

Problem solving and fundamental algorithms for various applications in science, business, and on the World Wide Web, and introductory programming in a modern object-oriented programming language. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 303E, 312, 312H. Credit for Computer Science 303E may not be earned after a student has received credit for Computer Science 314, or 314H. May not be counted toward a degree in computer science.

#### **C S 103F. Ethical Foundations of Computer Science.**

An introduction to reasoning about the effects of the technology created by computer scientists and understanding the ethical and real-world consequences of that technology. Emphasizes direct participation and discussion using case studies to illustrate ethical topics. One lecture hour a week for one semester. Computer Science 103F and 109 (Topic: Ethical Foundations of Computer Science) may not both be counted.

#### **C S 104C. Competitive Programming.**

Explores the algorithms needed to solve a given problem, reason about corner cases, and write correct implementations under time pressure. Focuses on skills useful for international programming competitions, whiteboard job interviews, and programming tasks that require quickly solving challenging problems with creative use of algorithms. One lecture hour a week for one semester. Computer Science 104 and 109 (Topic: Competitive Programming) may not both be counted. Prerequisite: Computer Science 311 or 311H with a grade of at least C-, and registration or credit in Computer Science 314 or 314H with a grade of at least C-.

**C S 105C. Computer Programming: C++.**

Explores the syntax and concepts needed to program in C++. One lecture hour a week for one semester. Prerequisite: Computer Science 313E, 314, 314H, or Electrical Engineering 422C, with a grade of at least C-.

**C S 105P. Topics In Computer Programming Languages.**

An introduction to programming in a particular computer language. Includes designing and implementing programs. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Computer Science 313E, 314, 314H, or Electrical Engineering 422C, with a grade of at least C-, and consent of instructor.

**C S 108. Software Systems.**

Introduction to the use of a particular software system. Students build applications that exploit the system being studied. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Computer Science 313E, 314, 314H, or Electrical Engineering 422C, with a grade of at least C-.

**C S 109, 209, 309. Topics in Computer Science.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Quantum Computing I.** Introduction to quantum information and communication. Computer Science 309 (Topic: Quantum Computing-FRI) and 309 (Topic 1) may not both be counted.

**C S 311. Discrete Mathematics for Computer Science.**

Restricted to computer science majors. A focus on discrete mathematical tools of fundamental importance to the working computer scientist. An emphasis is placed on using logical notation to express rigorous mathematical arguments. Subjects include proof by induction, introduction to graph theory, recurrences, sets, functions, and an introduction to program correctness. Three lecture hours a week for one semester. Computer Science 311 and 311H may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 312 or 312H; and Mathematics 408C, 408K, or 408N, or registration for Mathematics 408C.

**C S 311H. Discrete Mathematics for Computer Science: Honors.**

Restricted to honors computer science majors. A focus on discrete mathematical tools of fundamental importance to the working computer scientist. An emphasis is placed on using logical notation to express rigorous mathematical arguments. Subjects include proof by induction, graph theory, number theory, combinatorics, recurrences, sets, functions, an introduction to program correctness, and discrete probability. Three lecture hours a week for one semester. Computer Science 311 and 311H may not both be counted. Prerequisite: Mathematics 408K or 408N with a grade of at least C-; or registration or credit with at least C- in M 408C.

**C S 312. Introduction to Programming.**

First part of a two-part sequence in programming. Fundamental concepts of structured programming; procedures and data structures with a focus on problem solving strategies and implementation; introduction to concepts of informal specification, informal reasoning about program behavior, debugging, and ad hoc testing. Three lecture hours and one discussion hour a week for one semester. Only one of the following courses may be counted: Computer Science 303E, 312, 312H. Credit for Computer Science 312 may not be earned after a student has received credit for Computer Science 314 or 314H. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 408C, 408K, or 408N.

**C S 312H. Introduction to Programming: Honors.**

Restricted to computer science majors. First part of a two-part sequence in programming. Fundamental concepts of structured programming; procedures and data structures with a focus on problem solving strategies and implementation; introduction to concepts of informal specification, informal reasoning about program behavior, debugging, and ad hoc testing. Three lecture hours and one discussion hour a week for one semester. Only one of the following courses may be counted: Computer Science 303E, 312, 312H. Credit for Computer Science 312H may not be earned after a student has received credit for Computer Science 314 or 314H. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 305G, or a passing score on the College of Natural Sciences mathematics placement examination; and consent of the honors director.

**C S 313E. Elements of Software Design.**

Object-oriented design of software using Python, a modern high-level language. Introduction to abstract data types, fundamental algorithms, and basics of complexity analysis. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Prerequisite: Computer Science 303E, 312, or 312H with a grade of at least C-.

**C S 314. Data Structures.**

Second part of a two-part sequence in programming. Introduction to specifications, simple unit testing, and debugging; building and using canonical data structures; algorithm analysis and reasoning techniques such as assertions and invariants. Three lecture hours and one discussion hour a week for one semester. Computer Science 314 and 314H may not both be counted. Prerequisite: Computer Science 312 or 312H with a grade of at least C-.

**C S 314H. Data Structures: Honors.**

Second part of a two-part sequence in programming. Introduction to specifications, simple unit testing, and debugging; building and using canonical data structures; algorithm analysis and reasoning techniques such as assertions and invariants. Three lecture hours and one discussion hour a week for one semester. Computer Science 314 and 314H may not both be counted. Prerequisite: Consent of honors faculty advisor.

**C S 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Computer Science.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Computer Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**Upper-Division Courses****C S 120N, 220N, 320N. Topics in Computer Science for Nonmajors.**

For each semester hour of credit earned, one lecture hour a week for one semester. May not be counted toward a degree in computer science. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**C S 323E. Elements of Scientific Computing.**

Fundamentals of software issues related to scientific computing. Subjects include floating-point computations, numerical computation errors, interpolation, integration, solution of linear systems of equations, optimization, and initial value problems of ordinary differential equations.

Implementation of algorithms are investigated using MATLAB for matrix and vector computations. Examples are drawn from a variety of science and mathematics areas. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Computer Science 323E and 323H may not both be counted. Prerequisite: The following coursework with a grade of at least C-: Computer Science 303E and 313E, or Computer Science 312, 312H, 314, or 314H; Electrical Engineering 422C; Mathematics 408D, 408M, or 427L; and credit with a grade of at least C- or registration for Mathematics 340L, or 341.

#### **C S 323H. Elements of Scientific Computing: Honors.**

Fundamentals of software issues related to scientific computing. Subjects include floating-point computations, numerical computation errors, interpolation, integration, solution of linear systems of equations, optimization, and initial value problems of ordinary differential equations. Implementation of algorithms are investigated using MATLAB for matrix and vector computations. Examples are drawn from a variety of science and mathematics areas. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Computer Science 323E and 323H may not both be counted. Prerequisite: Computer Science 303E, 312, or 312H with a grade of at least C-; credit with a grade of at least C- or registration for Mathematics 340L, or 341; and consent of the honors director.

#### **C S 324E. Elements of Graphics and Visualization.**

Basics of two- and three-dimensional computer graphics systems, modeling and rendering, and selected graphics software APIs. Other topics may include interactive graphics, animation, graphical user interfaces, and the graphical presentation of information. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Prerequisite: Computer Science 313E, 314, or 314H with a grade of at least C-.

#### **C S 326E. Elements of Networking.**

Introduction to the principles and basic concepts of the Internet, networking applications and protocols, and simple client/server applications. Other topics may include network technologies and topologies, packet and circuit switching, LANS and WANS, Internet security, and network management. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Prerequisite: One of the following with a grade of at least C-: Computer Science 303E, 312, 312H, 314, 314H, Electrical Engineering 422C.

#### **C S 327E. Elements of Databases.**

A practical introduction to database management systems, with discussion of database administration and management. Survey of logical modeling, database design with a focus on relational databases, SQL query language, and current applications. Subjects may include data integrity, performance, concurrency, transaction processing, recovery, security, and Web applications. Three lecture hours a week for one semester. May not be counted toward a degree in computer science. Prerequisite: Computer Science 313E, 314, or 314H with a grade of at least C-.

#### **C S 328E. Topics in Elements of Computing.**

Three lecture hours a week for one semester. May not be counted toward a degree in computer science. May be repeated for credit when the topics vary. Prerequisite: Computer Science 303E, 312, or 312H with a grade of at least C-.

#### **C S 429. Computer Organization and Architecture.**

Restricted to computer science majors. An introduction to low-level computer design ranging from the basics of digital design to the hardware/software interface for application programs. Includes basic systems principles of pipelining and caching, and requires writing and

understanding programs at multiple levels. Four lecture hours and two discussion hours a week for one semester. Computer Science 429 and 429H may not both be counted. Prerequisite: The following courses with a grade of at least C-: Computer Science 311 or 311H; and Computer Science 314 or 314H.

#### **C S 329E. Advanced Topics in Elements of Computing.**

Three lecture hours a week for one semester. May not be counted toward a degree in computer science. May be repeated for credit when the topics vary. Prerequisite: Computer Science 313E, 314, or 314H with a grade of at least C-.

#### **C S 429H. Computer Organization and Architecture: Honors.**

Restricted to computer science majors. An introduction to low-level computer design ranging from the basics of digital design to the hardware/software interface for application programs. Includes basic systems principles of pipelining and caching, and requires writing and understanding programs at multiple levels. Four lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Computer Science 310, 310H, 429, 429H. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311 or 311H; Computer Science 314 or 314H.

#### **C S 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Computer Science.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Computer Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **C S 329W. Cooperative Computer Science.**

This course covers the work period of computer science students in the Cooperative Education program, which provides supervised work experience by arrangement with the employer and the supervising instructor. Forty laboratory hours a week for one semester. The student must repeat the course each work period and must take it twice to receive credit toward the degree; at least one of these registrations must be during a long-session semester. However, no more than three semester hours may be counted toward the major requirement. The student's first registration must be on the pass/fail basis; the second must be on the letter-grade basis. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311 or 311H; 314 or 314H; 429, or 429H; and consent of the undergraduate adviser.

#### **C S 330E. Elements of Software Engineering I.**

Explore software engineering using various programming languages. Use tools to improve the quality of software development. Three lecture hours a week for one semester. Computer Science 329E (Topic: Elements of Software Engineering) and 330E may not both be counted. Prerequisite: Computer Science 313E, 314, or 314H with a grade of at least C-.

#### **C S 331. Algorithms and Complexity.**

An investigation of algorithmic paradigms: divide and conquer, dynamic programming, greedy algorithms, graph algorithms, randomized algorithms, undecidability, NP-completeness, and approximation algorithms. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Computer Science 331, 331H, 378 (Topic: Algorithms and Complexity). Prerequisite: The following coursework with a grade of at least C-: Computer Science 429 or 429H; Mathematics 362K or Statistics and Data Sciences 321; and

credit with a grade of at least C- or registration for: Mathematics 340L, 341, or Statistics and Data Sciences 329C.

### **C S 331E. Elements of Software Engineering II.**

Explore advanced aspects of software engineering using various programming languages. Use tools to improve the quality of software development. Three lecture hours a week for one semester. Prerequisite: Computer Science 330E with a grade of at least C-.

### **C S 331H. Algorithms and Complexity: Honors.**

An investigation of algorithmic paradigms: divide and conquer, dynamic programming, greedy algorithms, graph algorithms, randomized algorithms, undecidability; NP-completeness, approximation algorithm, sorting lower bound, selected topics from amortized analysis, network flow, and linear programming. Three lecture hours and one hour of discussion a week for one semester. Only one of the following may be counted: Computer Science 331, 331H, 378 (Topic: Algorithms and Complexity). Prerequisite: The following coursework with a grade of at least C-: Computer Science 429 or 429H; Mathematics 362K or Statistics and Data Sciences 321; and credit with a grade of at least C- or registration for: Mathematics 340L, 341, or Statistics and Data Sciences 329C.

### **C S 234. Technical Writing.**

Application of techniques and strategies of effective technical writing, and of conventions used in documents such as letters, memos, proposals, abstracts, and reports. Two lecture hours a week for one semester. Computer Science 234 and 178 (Topic: Technical Writing) may not both be counted. May not be counted toward the number of hours in computer science required for the Bachelor of Science in Computer Science degree. Prerequisite: Computer Science 429, or 429H with a grade of at least C-.

### **C S 337. Theory in Programming Practice.**

Application of program-analysis theory to program design. Methodologies for large-scale program design. Designed to help students bring together theoretical and programming skills. Three lecture hours and one discussion hour a week for one semester. Computer Science 337 and 337H may not both be counted. Prerequisite: The following coursework with a grade of at least C-: Computer Science 429 or 429H; and 331, 331H, 341, or 341H.

### **C S 337H. Theory in Programming Practice: Honors.**

Application of program-analysis theory to program design. Methodologies for large-scale program design. Designed to help students bring together theoretical and programming skills. Three lecture hours and one discussion hour a week for one semester. Computer Science 337 and 337H may not both be counted. Prerequisite: The following coursework with a grade of at least C-: Computer Science 429 or 429H; and 331, 331H, 341, or 341H.

### **C S 439. Principles of Computer Systems.**

Restricted to computer science majors. An introduction to computer systems software abstractions with an emphasis on the connection of these abstractions to underlying computer hardware. Key abstractions include threads, virtual memory, protection, and I/O. Requires writing of synchronized multithreaded programs and pieces of an operating system. Four lecture hours and two discussion hours a week for one semester. Computer Science 439 and 439H may not both be counted. Prerequisite: Computer Science 429, or 429H with a grade of at least C-.

### **C S 439H. Principles of Computer Systems: Honors.**

Restricted to computer science majors. An introduction to computer systems software abstractions with an emphasis on the connection of these abstractions to underlying computer hardware. Key abstractions

include threads, virtual memory, protection, and I/O. Requires writing of synchronized multithreaded programs and pieces of an operating system. Four lecture hours and two discussion hours a week for one semester. Computer Science 439 and 439H may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 340D. Debugging Verifying Programs.**

Basic concepts of formal methods with emphasis on using and applying mathematical logic plus finite state systems theory to program verification and debugging. Three lecture hours a week for one semester. Computer Science 340D and 378 (Topic: Debugging and Verifying Programs) may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 341. Automata Theory.**

An introduction to the formal study of automata and of related formal languages with applications in computer science. Three lecture hours a week for one semester. Computer Science 341 and 341H may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 341H. Automata Theory: Honors.**

An introduction to the formal study of automata and of related formal languages with applications in computer science. Three lecture hours a week for one semester. Computer Science 341 and 341H may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-, and consent of the honors director.

### **C S 342. Neural Networks.**

An introduction to deep learning covering basic building blocks and intuitions behind designing, training, and tuning of deep networks. Explore application areas including computer vision, sequence modeling in natural language processing, deep reinforcement learning, generative modeling, and adversarial learning. Three lecture hours a week for one semester. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 342C. Computational Brain.**

An examination of the brain as a computational system composed of different layers of abstraction. Focus on scientific writing, with weekly reviews of relevant scientific papers. Three lecture hours a week for one semester. Computer Science 342C and 378 (Topic: Computational Brain) may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 429 or 429H; and Mathematics 362K or Statistics and Data Sciences 321.

### **C S 343. Artificial Intelligence.**

An introduction to the field of artificial intelligence (AI), starting from foundations in search and knowledge representation, and then sampling from major AI topics such as probabilistic reasoning, intelligent agents (including for games), machine learning, planning, natural language processing, robotics, computer vision, and philosophical foundations. Programming projects are required. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 343, 343H, 378H (Topic: Artificial Intelligence: Honors). Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 429 or 429H; and Mathematics 362K or Statistics and Data Sciences 321.

### **C S 343H. Artificial Intelligence: Honors.**

An introduction to the field of artificial intelligence (AI), starting from foundations in search and knowledge representation, and then sampling from major AI topics such as probabilistic reasoning, intelligent agents (including for games), machine learning, planning, natural language processing, robotics, computer vision, and philosophical foundations.

Programming projects are required. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 343, 343H, 378H (Topic: Artificial Intelligence: Honors). Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 429 or 429H; and Mathematics 362K or Statistics and Data Sciences 321.

### **C S 344M. Autonomous Multiagent Systems.**

An introduction to autonomous agents, with an emphasis on multiagent systems. Students use a robotics simulator. Emphasis on computer science research activities, including speaking, writing, programming, and working in groups. Three lecture hours a week for one semester. Computer Science 344M and 378 (Topic: Autonomous Multiagent Systems) may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 429 or 429H; and Mathematics 362K or Statistics and Data Sciences 321.

### **C S 344R. Robotics.**

A survey of methods and techniques important for intelligent robotics. Students work in teams, applying these methods to get intelligent behavior from physical robots. Three lecture hours a week for one semester. Computer Science 344R and 378 (Topic: Robotics) may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 429 or 429H; and Mathematics 362K or Statistics and Data Sciences 321.

### **C S 345. Programming Languages.**

Survey of significant concepts underlying modern programming languages, including syntax, functions, expressions, types, polymorphism, assignment, procedures, pointers, encapsulation, classes, and inheritance, with some discussion of implementation issues. Prominent programming paradigms, such as sequential, concurrent, object-oriented, functional, and logic programming. Illustrative examples drawn from a variety of current languages. Three lecture hours a week for one semester. Computer Science 345 and 345H may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 345H. Programming Languages: Honors.**

A survey of significant concepts underlying modern programming languages, including syntax, functions, expressions, types, polymorphism, assignment, procedures, pointers, encapsulation, classes, and inheritance, with some discussion of implementation issues. Prominent programming paradigms, such as sequential, concurrent, object-oriented, functional, and logic programming. Illustrative examples drawn from a variety of current languages. Three lecture hours a week for one semester. Computer Science 345 and 345H may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 346. Cryptography.**

A theoretical introduction to cryptography. Subjects include private key cryptosystems, public key cryptosystems, digital signatures, secret sharing schemes, and the necessary mathematical background. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C-: Computer Science 429 or 429H; 331, 331H, 341, or 341H; and credit with a grade of at least C- or registration for: Mathematics 340L, 341, or Statistics and Data Sciences 329C.

### **C S 347. Data Management.**

Concepts of database design and database system implementation. Data models, query processing, database design theory, crash recovery, concurrent control, and distributed databases. Three lecture hours a

week for one semester. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 349. Contemporary Issues in Computer Science.**

An examination of social, professional, and ethical issues involved in the use of computer technology. Subjects may include software engineering ethics, computer safety and reliability, constitutional issues, intellectual property, computer crime, societal impact, emerging technologies, and philosophical issues. Three lecture hours a week for one semester. Computer Science 349 and 378 (Topic: Contemporary Issues in Computer Science) may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 350C. Advanced Computer Architecture.**

Relationships between programming and hardware design, high performance and low power microarchitectures, memory system design, technology and workload constraints on design, special techniques for coding, addressing, and control, and evaluation of design alternatives will be explored. Three lecture hours a week for one semester. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 350F. Operating Systems.**

Advanced coverage of core operating systems (virtual memory, file systems, scheduling), and intermediate and advanced operating systems concepts: multiprocessing, multi-core computing, linking, kernel design, virtual machines, and security. Three lecture hours a week for one semester. Prerequisite: Computer Science 439 or 439H with a grade of at least C-.

### **C S 353. Theory of Computation.**

An introduction to computability theory and computational complexity, focusing on the limits of computation. Subjects include undecidability, NP-completeness, time and space complexity, circuit complexity, and randomized complexity. Three lecture hours a week for one semester. Prerequisite: One of the following with a grade of at least C-: Computer Science 331, 331H, 341, or 341H.

### **C S 354. Computer Graphics.**

Introduction to techniques for human-machine communication through imagery. Subjects include display hardware, transformations, interactive techniques, geometric modeling, two- and three-dimensional display algorithms, graphics software systems architecture, and hidden-line and surface elimination. Projects are assigned and in-depth exploration is encouraged. Three lecture hours a week for one semester. Prerequisite: The following courses with a grade of at least C-: Computer Science 429 or 429H; Computer Science 105C, 371G or 371P; Mathematics 408D, 408M, or 427L; and Mathematics 340L, 341, or Statistics and Data Sciences 329C.

### **C S 354R. Game Technology.**

An examination of major technological components of computer games and their integration, modeling and animation, physics simulation, networking for games, interface and interaction techniques, and special effects. Three lecture hours a week for one semester. Computer Science 354R and 378 (Topic: Game Technology) may not both be counted. Prerequisite: The following coursework with a grade of at least C-: Computer Science 105C, 371G or 371P; and Computer Science 429 or 429H.

### **C S 354S. Game Development Capstone: Two-Dimensional Games.**

Same as Music 354S and Theatre and Dance 354T (Topic 17). Participation in an interdisciplinary team to gain a thorough understanding of the two-dimensional game development process, through modeling of the environment and practices that are used in

game studios. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 354S, 378 (Topic: Game Development Capstone: 2D Games), Music 354S, 376J (Topic: Game Development Capstone: 2D Games), Theatre and Dance 354T (Topic 17). Prerequisite: For computer science majors, Computer Science 354 with a grade of at least C-; for others, consent of instructor.

### **C S 354T. Game Development Capstone: Three-Dimensional Games.**

Same as Music 354T and Theatre and Dance 354T (Topic 18). Participation in interdisciplinary teams to gain a thorough understanding of the three-dimensional game development process, through modeling of the environment and practices that are used in game studios. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 354T, Music 354T, 376J (Topic: Game Development Capstone: 3D Games), Theatre and Dance 354T (Topic 18). Prerequisite: For computer science majors, Computer Science 354R with a grade of at least C- or consent of instructor; for others, consent of instructor.

### **C S 356. Computer Networks.**

Introduction to computer networks with emphasis on the Internet. Three lecture hours a week for one semester. Prerequisite: Computer Science 439 or 439H with a grade of at least C-.

### **C S 356R. Introduction to Wireless Networks.**

An introduction to basic knowledge in wireless networks ranging from the physical layer to the application layer, and across different types of wireless networks such as WiFi, cellular, and multihop networks. Three lecture hours a week for one semester. Computer Science 356R and 378 (Topic: Introduction to Wireless Networks) may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 358H. Introduction to Quantum Information Science: Honors.**

Introduction to the theory of quantum computing and information. Explore the rules of quantum mechanics (qubits, unitary transformations, measurements, density matrices); quantum gates and circuits; entanglement; the Bell inequality; protocols for teleportation, quantum key distribution, and other tasks; basic quantum algorithms such as Shor's and Grover's; basic quantum complexity theory; basic quantum error correction; decoherence and the measurement problem; and the challenges of building scalable quantum computers. Previous exposure to quantum mechanics is not required. Three lecture hours a week for one semester. Computer Science 358H and 378H (Topic: Intro to Quantum Info Sci: Hon) may not both be counted. Prerequisite: Computer Science 331 or 331H with a grade of at least C-.

### **C S 360V. Virtualization.**

Examine the latest in virtualization technologies such as virtual machines, containers and serverless computing. Three lecture hours a week for one semester. Computer Science 360V and 378 (Topic: Virtualization) may not both be counted. Prerequisite: Computer Science 439 or 439H with a grade of at least C-.

### **C S 361. Introduction to Computer Security.**

An introduction to computer security, both in the abstract and in the context of real systems, including recognizing potential threats to confidentiality, integrity and availability, and developing familiarity with current security-related issues in computer science. Three lecture hours a week for one semester. Computer Science 361 and 378 (Topic: Introduction to Security) may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 361C. Information Assurance and Security.**

Selected subjects from the broad area of information assurance, including computer security, communications security, operations security, and risk assessment. Three lecture hours a week for one semester. Computer Science 361C and 378 (Topic: Information Assurance and Security) may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 361S. Network Security and Privacy.**

An examination of common computer security threats; fundamental techniques for implementing secure software systems and networks; practical experience in attacking and defending networked systems. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 361S, 378 (Topic: Network Security and Privacy), 378H (Topic: Network Security/Privacy:Hon). Prerequisite: Computer Science 439 or 439H with a grade of at least C-.

### **C S 363D. Introduction to Data Mining.**

Introduction to the topic of data mining: data preprocessing regression, classification, clustering, dimensionality reduction, association analysis, and anomaly detection. Three lecture hours a week for one semester. Computer Science 363D and 378 (Topic: Introduction to Data Mining) may not both be counted. Prerequisite: The following coursework with a grade of at least C-: Computer Science 429 or 429H; Mathematics 362K or Statistics and Data Sciences 321; and Mathematics 340L, 341, or Statistics and Data Sciences 329C.

### **C S 364D. Advanced Data Mining.**

Explore advanced aspects of data mining including regression, classification, and clustering; probabilistic models; latent variable models; Bayesian inference; and confidence estimation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Computer Science 363D with a grade of at least C-.

### **C S 367. Numerical Methods.**

Subjects include systems of linear equations, numerical integration, ordinary differential equations, and nonlinear equations. Construction and use of large numerical systems. Influence of data representation and computer architecture on algorithm choice and development. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 367, Mathematics 368K, Physics 329. Prerequisite: The following coursework with a grade of at least C-: Computer Science 429 or 429H; Mathematics 408D, 408M, or 427L; and Mathematics 340L, 341, or Statistics and Data Sciences 329C.

### **C S 369. Systems Modeling.**

Introduction to performance modeling, with emphasis on computer systems. Modeling methodology, queueing network models, simulation, analysis of results. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C-: Computer Science 429 or 429H; and Mathematics 362K or Statistics and Data Sciences 321.

### **C S 370. Undergraduate Reading and Research.**

Supervised study of selected problems in computer science, by individual arrangement with supervising instructor. The equivalent of three lecture hours a week for one semester. Computer Science 370 and 370F may not both be counted. No more than three semester hours may be counted toward a degree in computer science. Prerequisite: Computer Science 429 or 429H with a grade of at least C-, and consent of the undergraduate adviser.

### **C S 370F. Undergraduate Reading and Research: Writing.**

Supervised study of selected problems in computer science, by individual arrangement with supervising instructor. The equivalent of

three lecture hours a week for one semester. Computer Science 370 and 370F may not both be counted. No more than three semester hours may be counted toward a degree in computer science. Prerequisite: Computer Science 429 or 429H with a grade of at least C-, and consent of the undergraduate adviser.

### **C S 371D. Distributed Computing.**

Investigation of models, principles, and fundamental protocols, including event ordering and global predicate detection, atomic commit, state-machine replication, rollback recovery, primary backup, consensus for synchronous and asynchronous systems, and byzantine fault-tolerance. Three lecture hours a week for one semester. Prerequisite: Computer Science 439 or 439H with a grade of at least C-.

### **C S 371G. Generic Programming and the STL.**

Three lecture hours a week for one semester. Computer Science 371G and 378 (Topic: Generic Programming and the STL) may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 371L. iOS Mobile Computing.**

Overview of mobile computing with an emphasis on developing applications for the iOS operating system. Three lecture hours a week for one semester. Computer Science 371L and 378 (Topic: iOS Mobile Computing) may not both be counted. Prerequisite: Credit with a grade of at least C- or registration in Computer Science 439 or 439H.

### **C S 371M. Mobile Computing.**

Overview of mobile computing. Emphasis on mobile application development. Use of mobile capabilities: sensors, location, telephony, and multimedia. Three lecture hours a week for one semester. Computer Science 371M and 378 (Topic: Mobile Computing) may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-; and credit with a grade of at least C- or registration for Computer Science 439 or 439H.

### **C S 371P. Object-Oriented Programming.**

Programming using class derivation, inheritance, and dynamic polymorphism. Application of a simple object-oriented design methodology to several software development problems. Three lecture hours a week for one semester. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 371R. Information Retrieval and Web Search.**

Introduction to traditional and recent methodologies for indexing, processing, querying, and classifying unstructured and semi-structured textual data, including hypertext and World Wide Web documents. Three lecture hours a week for one semester. Computer Sciences 371R and 378 (Topic: Intelligent Information Retrieval and Web Search) may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 371S. Object-Oriented Software Engineering.**

Object-oriented formulations of software systems as executable specifications, object-oriented analysis, design of software architectures, translation of high-level specification systems. Three lecture hours a week for one semester. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 373. Software Engineering.**

Introduction to current knowledge, techniques, and theories in large software system design and development. Three lecture hours a week for one semester. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 373S. Software Design.**

Model-driven engineering, UML metamodels and constraints, model transformations, object-oriented refactorings, design patterns, object-oriented frameworks and plug-ins, layered and dataflow architectural styles, map-reduce parallel software architectures, and service-oriented architectures. Three lecture hours a week for one semester. Computer Science 373S and 378 (Topic: Software Design) may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 374L. Longhorn Startup.**

Focus on skill development and mentoring in startup formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Emphasis on written and oral presentation of startup activities. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 374L, 378 (Topic: Longhorn Startup), Electrical Engineering 377E, Engineering Studies 377E, Management 337 (Topic: Interdisciplinary Entrepreneurship), 337 (Topic 2). Prerequisite: Upper-division standing, Computer Science 429 or 429H with a grade of at least C-, and consent of instructor.

### **C S 174S. Longhorn Startup Seminar.**

An introduction to the world of startups through the experiences of people who have built successes and learned from failures. Two lecture hours a week for one semester. Only one of the following may be counted: Biomedical Engineering 177T, 277T, 377T (Topic: Longhorn Startup Seminar), Computer Science 178, 174S, 378 (Topic: Longhorn Startup Seminar), Engineering Studies 177, 277, 377 (Topic: Longhorn Startup Seminar), 177, 277, 377 (Topic 1), Fine Arts 160, 260, 360 (Topic: Longhorn Startup Seminar), 170, 270, 370, Management 137, 237, 337 (Topic: Longhorn Startup Seminar), Communication 125, 225, 325 (Topic: Longhorn Startup Seminar). Prerequisite: Upper-division standing, Computer Science 429 or 429H with a grade of at least C-, and consent of instructor.

### **C S 375. Compilers.**

An examination of formal description of languages, lexical analysis, syntax analysis, syntax-directed translation, run-time system management, code generation, code optimization, compiler-building tools. Three lecture hours a week for one semester. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 376. Computer Vision.**

Explores computer vision, a discipline that develops methods that enable machines to interpret or analyze images and videos. Includes the study of image formation, feature detection, segmentation, multiple-view geometry, recognition and learning, and motion and tracking. Three lecture hours a week for one semester. Computer Science 376 and 378 (Topic: Computer Vision) may not both be counted. Prerequisite: The following coursework with a grade of at least C-: Computer Science 429 or 429H; Mathematics 340L, 341, or Statistics and Data Sciences 329C; and Mathematics 362K or Statistics and Data Sciences 321.

### **C S 377. Principles and Applications of Parallel Programming.**

Models of parallel computation, fundamental concepts for representation of parallel computation structures, study of representative parallel programming systems, and programming of parallel algorithms and computations. Three lecture hours a week for one semester. Prerequisite: Computer Science 439 or 439H with a grade of at least C-.

### **C S 377P. Programming for Performance.**

Investigation on the performance-critical features of modern computer architectures and how applications can take advantage of them to

obtain high performance. Three lecture hours a week for one semester. Computer Science 377P and 378 (Topic: Programming for Performance) may not both be counted. Prerequisite: Computer Science 429 or 429H with a grade of at least C-.

### **C S 178, 378. Undergraduate Topics in Computer Science.**

One or three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: Computer Science 178, 378, 178H, 378H. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

**Topic 1: Quantum Computing II.** Introduction to quantum algorithms and programming. Computer Science 378 (Topic: Quantum Computing-FRI) and 378 (Topic 1) may not both be counted.

### **C S 178H, 378H. Undergraduate Topics in Computer Science: Honors.**

For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted unless the topics vary: Computer Science 178, 378, 178H, 378H. May be repeated for credit when the topics vary. Prerequisite: Computer Science 429 (or 310) or 429H (or 310H) with a grade of at least C-.

### **C S 379H. Computer Science Honors Thesis.**

Directed reading, research, and/or projects in areas of computer science, under supervision of a faculty member, leading to an honors thesis. The thesis must be approved by a committee of three readers. The equivalent of three lecture hours a week for one semester, by arrangement with a faculty member. Prerequisite: The following coursework with a grade of at least C- in each: Computer Science 311, or 311H; Computer Science 314, or 314H; Computer Science 429, or 429H; Mathematics 408C, 408K, or 408N; nine additional semester hours of upper-division coursework in computer science; and consent of the student's research supervisor and the departmental honors adviser.

## **Graduate Courses**

### **C S 380C. Compilers.**

Basics of static analysis and transformation techniques; exploration in depth of one aspect of compilation and optimization. Three lecture hours a week for one semester. Computer Science 380C and 395T (Topic: Compilers) may not both be counted. Prerequisite: Graduate standing; Computer Science 375 are recommended.

### **C S 380D. Distributed Computing I.**

Models of distributed systems; language issues, proving properties of distributed systems; time, clocks, partial ordering of events; deadlock and termination detection; diffusing computations; computing in hostile environments; distributed resource management. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C S 380J. Operating Systems Implementation.**

Seminar about how operating systems work. Readings and discussion about classic and recent research papers. Intensive programming assignments in the construction of a prototype operating system. Three lecture hours a week for one semester. Computer Science 380J and 395T (Topic: Operating Systems Implementation) may not both be counted. Prerequisite: Graduate standing; and an undergraduate course in operating systems, networking, or distributed systems, or consent of instructor.

### **C S 380L. Advanced Operating Systems.**

Study of the formal structure, design principles, organization, implementation, and performance analysis of multiprogramming and/or

multiprocessor computer systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor.

### **C S 380N. Systems Modeling.**

Theory and applications of Markovian models: birth-death models, queueing models, and networks of queues. Numerical methods: computational algorithms, approximation techniques, discrete-event simulation. Performance of scheduling disciplines: priority, time-sharing, multiple access. Three lecture hours a week for one semester. Prerequisite: Graduate standing and an undergraduate course in probability theory.

### **C S 380P. Parallel Systems.**

Explores parallel systems, from languages to hardware, from large-scale parallel computers to multicore chips, and from traditional parallel scientific computing to modern uses of parallelism. Includes discussion of and research methods in graphics, languages, compilers, architecture, and scientific computing. Three lecture hours a week for one semester. Computer Science 380P and 395T (Topic: Parallel Systems) may not both be counted. Prerequisite: Graduate standing.

### **C S 380S. Theory and Practice of Secure Systems.**

Survey of modern security, designed to introduce the basic techniques used in the design and analysis of secure systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Computer Science 353 or consent of instructor.

### **C S 381K. Artificial Intelligence.**

Use of computers in problem solving, game playing, theorem proving, natural language understanding, and related tasks; methods of search, knowledge representation, learning, and other topics. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Computer Science 351 or consent of instructor.

### **C S 381V. Visual Recognition.**

Subjects include fundamental representations, learning approaches, matching-based algorithms, human activity models for video, and large-scale recognition. Three lecture hours a week for one semester. Computer Science 381V and 395T (Topic: Visual Recognition) may not both be counted. Prerequisite: Graduate standing; a background in basic computer vision and machine learning is recommended.

### **C S 382M. Advanced Computer Architecture.**

Algorithms and their realizations, special techniques for coding, addressing, and control; integration of computer units; relations between programming and design considerations. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C S 383C. Numerical Analysis: Linear Algebra.**

Same as Computational Science, Engineering, and Mathematics 383C, Mathematics 383E, and Statistics and Data Sciences 393C. Survey of numerical methods in linear algebra: floating-point computation, solution of linear equations, least squares problems, algebraic eigenvalue problems. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 383C, Computer Science 383C, Mathematics 383E, Statistics and Data Sciences 393C. Prerequisite: Graduate standing; Computer Science 367 or Mathematics 368K; and Mathematics 340L, 341, or consent of instructor.

### **C S 383D. Numerical Analysis: Interpolation, Approximation, Quadrature, and Differential Equations.**

Same as Computational Science, Engineering, and Mathematics 383D, Mathematics 383F, and Statistics and Data Sciences 393D. Survey of numerical methods for interpolation, functional approximation,

integration, and solution of differential equations. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 383D, Computer Science 383D, Mathematics 383F, Statistics and Data Sciences 393D. Prerequisite: Graduate standing; Computational Science, Engineering, and Mathematics 383C, Computer Science 383C, Mathematics 383E, or Statistics and Data Sciences 393C; and Mathematics 427K and 365C, or consent of instructor.

### **C S 384G. Computer Graphics.**

Same as Computational Science, Engineering, and Mathematics 382G. Advanced material in computer graphics, including in-depth treatments of techniques for realistic image synthesis, advanced geometric modeling methods, animation and dynamic simulation, scientific visualization, and high-performance graphics architectures. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 382G and Computer Science 384G may not both be counted. Prerequisite: Graduate standing; and Computer Science 354 or another introductory course in computer graphics, or equivalent background and consent of instructor.

### **C S 384M. Multimedia Systems.**

Theoretical and practical issues in advanced systems, including multimedia systems, digital audio and video compression techniques, operating system and network support for digital audio and video, and multimedia conferencing systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and either Computer Science 356 or 380D and 380L.

### **C S 384P. Physical Simulation of Computer Graphics.**

Explore the key concepts and algorithms for simulating physical systems; starting from the ground up with particle systems and mass-spring networks, rigid and elastic bodies, collisions, cloth, and fluids. Three lecture hours a week for one semester. Computer Science 384P and 395T (Topic: Physical Simulation) may not both be counted. Prerequisite: Graduate standing; and an introductory course in computer graphics, or equivalent background and consent of instructor.

### **C S 384R. Geometric Modeling and Visualization.**

Computational image processing, computational geometry and geometric modeling algorithms with an emphasis on spatial realism, and the programmatic use of physiological simulation and visualization to quantitatively depict how things work at the molecular, cellular, tissue, organ, and system levels. Three lecture hours a week for one semester. Computer Science 384R and 395T (Topic: Graphics, Modeling, and Visualization) may not both be counted; Computer Science 384R and 395T (Topic: Multiscale Bio-Modeling and Visualization) may not both be counted; Computer Science 384R and 395T (Topic: Physically Based Geometric Modeling) may not both be counted. Prerequisite: Graduate standing, and Computer Science 354 or consent of instructor.

### **C S 384V. Introduction to VLSI Design.**

Basic techniques required to design custom negative metal oxide semiconductor digital integrated circuits. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor.

### **C S 386C. Dependable Computing Systems.**

System models from synchronous to asynchronous, with emphasis on in-between models such as the timed asynchronous model. Control structures such as timed state-transition systems, and constraints in temporal and real-time logics. Analysis techniques such as model checking of timed systems, and extended Presburger arithmetic. Basic building blocks such as clock synchronization, synchronous atomic broadcast, time-bounded membership protocols, real-time scheduling theory, and state recovery methods. Practical implementation issues

such as special operating system data structures and algorithms, open system design, and security concerns. Three lecture hours a week for one semester. Computer Science 386C and 395T (Topic: Dependable Computing Systems) may not both be counted. Prerequisite: Graduate standing, and an undergraduate course in operating systems or consent of instructor.

### **C S 386D. Database Systems.**

Introduction to the principles of database systems, including fundamental ideas and algorithms used in the construction of centralized database management systems, distributed database management systems, and database machines and their roles in Internet infrastructure. Topics include data storage and indexing algorithms, query processing and optimization, concurrency control, recovery, XML and object-oriented databases, database evaluation and tuning, and recent directions in database research. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Computer Science 347 and 375.

### **C S 386K. Numerical Treatment of Differential Equations.**

The analysis of numerical methods for solving ordinary and partial differential equations. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and , Computer Science 383D, Mathematics 368K, 383F, or consent of instructor.

### **C S 386L. Programming Languages.**

Topics include formal syntax representations, program correctness, typing, and data abstraction. Features and problems in languages that allow parallelism. Exploration of different programming styles, such as imperative, functional, logic, data flow, and object-oriented programming. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Computer Science 345 or consent of instructor.

### **C S 386M. Communication Networks.**

Switching techniques, network and protocol architectures, communication protocols, resource allocation problems, internetworking, design and analysis methods. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C S 386S. Network Protocol Security.**

Techniques and research in Internet and network security. Three lecture hours a week for one semester. Computer Science 386S and 395T (Topic: Secure Network Protocols) may not both be counted. Prerequisite: Graduate standing.

### **C S 386W. Wireless Networking.**

Fundamental concepts and principles of wireless network technologies and protocol design, ranging from physical layer to application layer, and in-depth studies of current wireless research. Three lecture hours a week for one semester. Computer Science 386W and 395T (Topic: Wireless Networking) may not both be counted. Prerequisite: Graduate standing.

### **C S 388. Natural Language Processing.**

Computational methods for syntactic and semantic analysis of structures representing meanings of natural language; study of current natural language processing systems; methods for computing outlines and discourse structures of descriptive text. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and a course in artificial intelligence or consent of instructor.

### **C S 388C. Combinatorics and Graph Theory.**

Counting, matching theory, extremal set theory, Ramsey theory, probabilistic method, linear algebra method, coding theory. Applications to computer science, including randomized algorithms. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and

consent of instructor. An understanding of elementary proof and counting techniques is assumed.

### **C S 388F. Automata and Formal Languages.**

Formal grammars, languages and related classes of automata, language hierarchies, operations on languages, decidability, related complexity issues, closure properties, other classes of automata. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and consent of instructor.

### **C S 388G. Algorithms: Techniques and Theory.**

Sorting and searching algorithms, graph algorithms, algorithm design techniques, lower bound theory, fast Fourier transforms, NP-completeness. Three lecture hours a week for one semester. Data Science 388G and Computer Science 388G may not both be counted. Prerequisite: Graduate standing and knowledge of algorithmic paradigms.

### **C S 388H. Cryptography.**

Surveys the foundations of cryptography from formal notions of security to fundamental protocols, including one-way functions, encryption, pseudorandom generators, signature schemes, and zero-knowledge. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Computer Science 353 or consent of instructor.

### **C S 388L. Introduction to Mathematical Logic.**

Introduction to some of the principal topics of mathematical logic: propositional and predicate calculus; Goedel's completeness theorem; first-order theories; formalizing mathematical reasoning; first-order arithmetic; recursive functions; Goedel's incompleteness theorems; axiomatic set theory. Three lecture hours a week for one semester. Prerequisite: Graduate standing and experience in abstract mathematical thinking.

### **C S 388M. Communication Complexity.**

Covers the most important models of communication complexity and their applications, including recent research results and various open problems. Three lecture hours a week for one semester. Computer Science 388M and 395T (Topic: Communication Complexity) may not both be counted. Prerequisite: Graduate standing.

### **C S 388P. Parallel Algorithms.**

Parallel algorithm design on shared memory machines (PRAMs); parallel complexity results; lower bounds; relationship of PRAM model to other models of parallel computation. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and Computer Science 388G, or consent of instructor.

### **C S 388R. Randomized Algorithms.**

The design and analysis of efficient randomized algorithms. Three lecture hours a week for one semester. Computer Science 388R and 395T (Topic: Randomized Algorithms) may not both be counted. Prerequisite: Graduate standing.

### **C S 388S. Formal Semantics and Verification.**

Sequential execution: partial and total correctness; deductive, operational, and denotational semantics; formal derivation of programs; parallel execution: partial correctness, deadlock, and starvation; methodology, parallel versus distributed execution. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C S 388T. Theory of Computation.**

Models of computation, decidability, complexity theory, relations between complexity classes, reductions, and completeness; NP-complete

problems, randomized computation; approximability; circuit complexity; parallel computation. Three lecture hours a week for one semester.

Prerequisite: Graduate standing; and Computer Science 353 or consent of instructor.

### **C S 389L. Automated Logical Reasoning.**

Subjects include automated reasoning techniques for propositional logic, first-order logic, linear arithmetic over reals and integers, theory of uninterpreted functions, and combinations of these theories. Examines automated logical reasoning both from a theoretical and practical perspective, giving a hands-on experience building useful tools, such as SAT and SMT solvers. Three lecture hours a week for one semester. Computer Science 389L and 395T (Topic: Automated Logical Reasoning) may not both be counted. Prerequisite: Graduate standing.

### **C S 389M. Principles of Object-Oriented Software Technology.**

Fundamental principles of object-oriented software engineering, including design and implementation of object-oriented analysis methods, software architectures, translators of high-level programming language representations, translations to multiple-software architectures. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Computer Science 371S or the equivalent, and consent of instructor.

### **C S 389R. Recursion and Induction I.**

The development of a formal theory for reasoning about computer programs, with emphasis on recursively defined functions in the LISP style and proof by mathematical induction. Heavy emphasis on student discovery and presentation of proofs. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C S 390D. Distributed Computing II.**

Synchronous and asynchronous algorithms, with particular emphasis on notations for expressing the algorithms and logics for reasoning about them. Algorithms from a variety of application areas and for a variety of architectures. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Computer Science 380D.

### **C S 390S. Sublinear Algorithms.**

Study algorithms that can process very large data sets, with a focus on streaming algorithms, compressed sensing, and property testing. Three lecture hours a week for one semester. Computer Science 390S and 395T (Topic: Sublinear Algorithms) may not both be counted. Prerequisite: Graduate standing and knowledge of algorithms, probability, and linear algebra.

### **C S 391D. Data Mining: A Mathematical Perspective.**

Mathematical and statistical aspects of data mining. Topics include supervised learning (regression, classification, support vector machines) and unsupervised learning (clustering, principal components analysis, dimensionality reduction). Uses technical tools that draw from linear algebra, multivariate statistics, and optimization. Three lecture hours a week for one semester. Computer Science 391D and 395T (Topic: Data Mining: A Statistical Learning Perspective) may not both be counted. Prerequisite: Graduate standing, and Mathematics 341 or the equivalent.

### **C S 391K. Artificial Intelligence II.**

Advanced course in artificial intelligence. Topics include planning, probabilistic reasoning, truth maintenance, abduction, model-based diagnosis, and speech recognition. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Computer Science 381K or equivalent knowledge of artificial intelligence and LISP.

### **C S 391L. Machine Learning.**

Computing systems that automatically improve their performance with experience, including various approaches to inductive classification such as version space, decision tree, rule-based, neural network, Bayesian, and instance-based methods; as well as computational learning theory, explanation-based learning, and knowledge refinement. Three lecture hours a week for one semester. Data Science 391L and Computer Science 391L may not both be counted. Prerequisite: Graduate standing, and Computer Science 381K or equivalent knowledge of artificial intelligence and LISP.

### **C S 391R. Robot Learning.**

Survey a wide range of modern techniques in robotics that learn from data, largely focusing on robot perception and decision making. Explore 3D vision, representation learning, active perception, reinforcement learning, imitation learning, and applications in robot manipulation. Three lecture hours a week for one semester. Computer Science 391R and 395T (Topic: Robot Learning) may not both be counted. Prerequisite: Graduate standing, and experience in machine learning and computer vision.

### **C S 392C. Methods and Techniques for Parallel Programming.**

Models of parallel fundamental concepts for representation of parallel computation structures, study of representative parallel programming languages, formulation of languages and translation methods, translation of parallel programs to multiple targets, laboratory exercises in parallel programming. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **C S 392F. Automated Software Design.**

Model-driven engineering; UML metamodels and constraints, model transformations, software product lines, feature models, feature modularity, feature algebras, feature interactions, multi-dimensional separation of concerns, design-by-transformation, parallel software architectures, correct-by-construction, architecture refinement, optimization, and extension, program refactorings, design patterns, refactoring scripts, category theory, functors, commuting diagrams. Three lecture hours a week for one semester. Computer Science 392F and 395T (Topic: Feature-Oriented Programming) may not both be counted. Prerequisite: Graduate standing, and a basic knowledge of Java, compilers and grammars, and object-oriented design methods.

### **C S 393C. Agent-Based Electronic Commerce.**

Focuses on the intersection of computer science (including multiagent systems and machine learning), economics, and game theory. Explores economic mechanisms of exchange suitable for use by automated intelligent agents, including auctions and auction theory, game theory and mechanism design, and autonomous bidding agents. Students demonstrate programming proficiency in a trading agent competition. Three lecture hours a week for one semester. Computer Science 393C and 395T (Topic: Agent-Based Electronic Commerce) may not both be counted. Prerequisite: Graduate standing.

### **C S 393D. Topics in Numerical Analysis.**

Recent topics have included numerical methods in ordinary differential equations, numerical methods in partial differential equations, computational problems in linear algebra, numerical solution of systems of equations, numerical methods in functional approximation, numerical integration. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **C S 393N. Numerical Solution of Elliptic Partial Differential Equations.**

Same as Mathematics 393N. The numerical solution of large systems of linear algebraic equations arising in the solution of elliptic partial differential equations by discretization methods. Three lecture hours a week for one semester. Computational Science, Engineering and Mathematics 393N and Mathematics 393N may not both be counted. Prerequisite: Graduate standing; and Computational Science, Engineering, and Mathematics 383K, Computer Science 386K, Mathematics 387C, or consent of instructor.

### **C S 393P. Program Synthesis.**

Study the methods for automatically discovering programs that implement given high-level specifications, which can take many forms, including formal constraints, input-output examples, demonstrations, and natural language. Examine contemporary algorithms for program synthesis to bring together symbolic techniques for pruning and search, numerical techniques for finding optimal parameters, and statistical techniques for interpreting ambiguous specifications and learning to search. Three lecture hours a week for one semester. Computer Science 393P and 395T (Topic: Program Synthesis) may not both be counted. Prerequisite: Graduate standing, and undergrad-level expertise in algorithms and discrete mathematics and the ability to program.

### **C S 393R. Autonomous Robots.**

Explore an advanced overview of autonomous mobile robotics, including control, perception, and planning. Examine algorithms and data structures related to these, cover widely adopted and state of the art techniques. Implement and extend such algorithms on real robots. Three lecture hours a week for one semester. Computer Science 393R and 395T (Topic: Autonomous Robots) may not both be counted. Prerequisite: Graduate standing.

### **C S 394C. Algorithms for Computational Biology.**

Algorithm design in computational molecular biology, with a focus on multiple sequence alignment and phylogeny (evolutionary history) reconstruction. Topics include the design and analysis of algorithms under probabilistic models of evolution, heuristics, and exact solutions for NP-hard optimization problems. Three lecture hours a week for one semester. Computer Science 394C and 395T (Topic: Algorithms for Computational Biology) may not both be counted. Prerequisite: Graduate standing.

### **C S 394D. Deep Learning.**

Explore the basic building blocks and intuitions behind designing, training, tuning, and monitoring of deep networks. Examine both the theory of deep learning, as well as hands-on implementation sessions in pytorch. Explore a series of application areas of deep networks in: computer vision, sequence modeling in natural language processing, deep reinforcement learning, generative modeling, and adversarial learning. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and experience in artificial intelligence and machine learning.

### **C S 394F. Knowledge Representation and Reasoning.**

Surveys the research and practice of building knowledge systems, including knowledge representation, automated reasoning, knowledge acquisition, and explanation generation. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and Computer Science 381K or the equivalent or consent of instructor.

### **C S 394N. Neural Networks.**

Same as Neuroscience 394N. Biological information processing; architectures and algorithms for supervised learning, self-organization, reinforcement learning, and neuro-evolution; theoretical analysis;

hardware implementations and simulators; applications in engineering, artificial intelligence, and cognitive science. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 394N, Neuroscience 394N, 394P (Topic: Neural Networks). Prerequisite: Graduate standing.

### **C S 394P. Automatic Programming.**

Automatic generation of computer programs from high-level specifications. Program analysis, optimization, and transformation; partial evaluation; object-oriented programming; transformation of formal specifications; specialization of generic procedures; views. Three lecture hours a week for one semester. Prerequisite: Graduate standing. Computer Science 375 and 381K are recommended.

### **C S 394R. Reinforcement Learning: Theory and Practice.**

Introduces the theory and practice of modern reinforcement learning, with emphasis on temporal difference learning algorithms. Three lecture hours a week for one semester. Computer Science 394R and 395T (Topic: Reinforcement Learning: Theory and Practice) may not both be counted. Prerequisite: Graduate standing.

### **C S 195, 295, 395. Conference Course.**

For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the credit/no credit basis only. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **C S 195L, 295L, 395L. Conference Course.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **C S 195T, 395T. Topics in Computer Science.**

From eight to fifteen topics are offered each semester. One or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

#### **Topic 1: Parallel Computations.**

### **C S 396. Research Practice and Experience.**

Open only to those in their first two years as graduate students in computer science. Designed to provide an early research experience for new doctoral students in computer science. Students conduct an independent research project and present the results. Individual instruction. May not be counted toward a master's degree in computer science. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **C S 396M. Advanced Networking Protocols.**

Topics include routing, multiple access, internetworking, security, performance models, and verification methods. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **C S 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in computer science and consent of the graduate adviser; for 698B, Computer Science 698A.

### **C S 398T. Supervised Teaching in Computer Science.**

Supervised teaching experience, and seminar focused on curriculum construction and teaching methods. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and appointment as a teaching assistant.

### **C S 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Conducting Courses**

## **Conducting: CON**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **CON 280K, 380K, 480K. Master's Conducting: Chorus.**

Restricted to graduate music majors. For 280K, two lecture hours and two laboratory hours a week for one semester; for 380K, three lecture hours and two laboratory hours a week for one semester; for 480K, four lecture hours and two laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and intermediate-level conducting experience, or consent of instructor.

#### **CON 280S, 380S, 480S. Master's Conducting: Orchestra.**

Restricted to graduate music majors. For 280S, two lecture hours and two laboratory hours a week for one semester; for 380S, three lecture hours and two laboratory hours a week for one semester; for 480S, four lecture hours and two laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and intermediate-level conducting experience, or consent of instructor.

#### **CON 280W, 380W, 480W. Master's Conducting: Band.**

Restricted to graduate music majors. For 280W, two lecture hours and two laboratory hours a week for one semester; for 380W, three lecture hours and two laboratory hours a week for one semester; for 480W, four lecture hours and two laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and intermediate-level conducting experience, or consent of instructor.

#### **CON 290K, 490K. Doctoral Conducting: Chorus.**

Restricted to students pursuing a Doctor of Musical Arts in choral conducting. For 290K, two lecture hours and at least twelve practice hours a week for one semester; for 490K, two lecture hours and at least twelve practice hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

#### **CON 290S, 490S. Doctoral Conducting: Orchestra.**

Restricted to students pursuing a Doctor of Musical Arts in orchestral conducting. For 290S, two lecture hours and at least twelve practice hours a week for one semester; for 490S, two lecture hours and at least twelve practice hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

#### **CON 290W, 490W. Doctoral Conducting: Band.**

Restricted to students pursuing the Doctor of Musical Arts in band conducting. For 290W, two lecture hours and at least twelve practice hours a week for one semester; for 490W, four lecture hours and at least twelve practice hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

## **Professional Courses**

# Core Texts and Ideas Courses

## Core Texts and Ideas: CTI

### Lower-Division Courses

#### CTI 301G. Introduction to Ancient Greece.

Same as Classical Civilization 301. Greatness of Greece as reflected in Greek history, literature, philosophy, art, religion, and politics. No knowledge of Greek is required. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 301, Core Texts and Ideas 310 (Topic: Introduction to Ancient Greece), 301G.

#### CTI 302. Classics of Social and Political Thought.

Same as Government 314E. Explores the origins of social scientific thought in the history of political philosophy and traces the development of one or more of the social sciences in modern times. Focuses on fundamental ideas about human nature, civil society, and politics, explored through reading such authors as Aristotle, Aquinas, Locke, Rousseau, Marx, Weber, Durkheim, and Freud. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 302, Government 314 (Topic: Classics of Social and Political Thought), 314 (Topic 10), 314E.

#### CTI 303. Competing Visions of the Good Life.

Same as Government 314C. Introduces the great rival conceptions of the moral basis and goals of political life as elaborated by revolutionary thinkers throughout the history of political philosophy, including Aristotle, Aquinas, Locke, late modern critics of the Enlightenment, and others. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 303, Government 314 (Topic 6), 314C.

#### CTI 304. World Religions: Traditions and Texts.

A study of basic religious texts, including both the Hebrew Bible and New Testament, examined from various perspectives (including comparative, historical, philosophical, and literary), with emphasis on the fundamental questions and ideas raised in those texts. Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: The Bible and Its Interpreters.** Same as Religious Studies 315C. Seeks to develop a wide-ranging familiarity with the Jewish and Christian Bibles and with the dominant modes of ancient, medieval, and early modern biblical interpretation. Readings include an extensive range of primary sources, including both the Scriptures themselves and some of their most influential exegetes. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 304 (Topic 1), Religious Studies 315 (Topic 1), 315C.

#### CTI 305G. Introduction to the Old Testament.

Same as Jewish Studies 311 (Topic 4), Middle Eastern Studies 310C, and Religious Studies 313C. Introduction to the many interpretations of the Hebrew Bible (the Old Testament) and its meaning in the context of its historical and cultural setting in the ancient Near East. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 305G, Jewish Studies 311 (Topic 4), Middle Eastern Studies 310 (Topic 3), 310C, Religious Studies 313C.

#### CTI 305N. Introduction to the New Testament.

Same as Classical Civilization 304E and Religious Studies 315N. Examines representative examples of the texts found in the Christian

New Testament and selected noncanonical writings. Focuses on historical setting and systematic methods of interpretation. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 304C (Topic: Introduction to the New Testament), 304E, Core Texts and Ideas 305N, 310 (Topic: Introduction to the New Testament), Religious Studies 315N.

#### CTI 306D. History of the Religions of Asia.

Same as Asian Studies 301R and Religious Studies 302. Eastern religions: an introduction to the basic forms and the historical development of the religious traditions of India, China, and Japan. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 301R, Core Texts and Ideas 304 (Topic: History of Religions of Asia), 306D, 310 (Topic: History of Religions of Asia), Religious Studies 302.

#### CTI 307E. Western Civilization in Medieval Times.

Same as Ancient History and Classical Civilization 310 (Topic 2) and History 309K. Survey of medieval Europe from late antiquity to the fifteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Western Civ in Medieval Times), 310 (Topic 2), Core Texts and Ideas 307E, 310 (Topic: Western Civ in Medieval Times), History 309K.

#### CTI 307M. Western Civilization in Modern Times.

Same as History 309L. Survey of European civilization since the fifteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 307M, 310 (Topic: Western Civ in Modern Times), History 309L.

#### CTI 310. Topics in Core Texts and Ideas.

Introduction to fundamental texts and questions that have helped shape the world. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Core Texts and Ideas 310 and Western Civilization 303 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

**Topic 3: Introduction to the Philosophy of Religion.** Same as Philosophy 305 and Religious Studies 305. A critical examination of various conceptions of God and of the relationship of the human and the divine. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 310 (Topic: Introduction to the Philosophy of Religion), 310 (Topic 3), Philosophy 305, Religious Studies 305.

## Upper-Division Courses

#### CTI 320. The Classical Quest for Justice.

Same as Government 351C. Introduces students to classical political thought through a study of seminal works of antiquity, focusing on those of Plato and Aristotle. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 320, 335 (Topic: Classical Quest for Justice), Government 335M (Topic: Classical Quest for Justice), 351C. Prerequisite: Completion of at least thirty semester hours of coursework.

#### CTI 321. The Theoretical Foundations of Modern Politics.

Same as Government 351D. Examines competing foundations of the ongoing development of political and social modernity. Examines a selection of major authors from Machiavelli to Nietzsche. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 321, 335 (Topic: The Theoretical Foundations of Modern Politics), Government 335M (Topic: The Theoretical Foundations of Modern Politics), 351D Western Civilization

320 (Topic: The Theoretical Foundations of Modern Politics).  
Prerequisite: Completion of at least thirty semester hours of coursework.

### **CTI 321F. Spinoza and Modernity.**

Same as European Studies 346 (Topic 21), History 362P, Jewish Studies 364 (Topic 9), and Religious Studies 357M. Introduction to the core of Spinoza's writings and the diverse reactions they have elicited. Examines Spinoza's refusal of mind-body dualism, as well as a transcendent god or ideal as a way of understanding Spinoza's concepts and ideas. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 321F, European Studies 346 (Topic 21), 347 (Topic: Spinoza and Modernity), History 362P, Jewish Studies 364 (Topic 9), Philosophy 354 (Topic 7), Religious Studies 357 (Topic 8), 357M. Prerequisite: Upper-division standing.

### **CTI 322. Critics of Modern Liberalism.**

Same as Government 351G. Selected critics of the philosophy of the Enlightenment from both the Left and the Right, and from the time of Rousseau to the present. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 322, Government 335M (Topic: Liberalism and its Critics), 351G. Prerequisite: Upper-division standing.

### **CTI 323. Might and Right among Nations.**

Same as Government 351J. Major alternative approaches to the question of the moral character of international relations, as elaborated by some of the greatest political thinkers. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 323, 335 (Topic: Might and Right among Nations), Government 335M (Topic: Might and Right among Nations), 351J, Western Civilization 320 (Topic: Might and Right among Nations). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **CTI 324. Politics and Literature.**

Same as Government 335O. Explores the "old battle between the poets and philosophers," in which the two sides battle for recognition as the deepest source of wisdom about politics and ethics. Includes readings from great works of political philosophy and literature. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 324, Government 335M (Topic: Politics and Literature), 335M (Topic 15), 335O. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **CTI 325. Morality and Politics.**

Same as Government 351L. Interdisciplinary readings from major works exploring issues of ethics and leadership. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 325, Government 335M (Topic: Morality and Politics), 351L. Prerequisite: Upper-division standing.

### **CTI 326C. Constitutional Interpretation.**

Same as Government 357C. Designed to improve reasoning and communication skills through constitutional interpretation. Determining what the Constitution means, how to determine what it means, and who should determine what it means. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 326 (Topic: Constitutional Interpretation), 326 (Topic 1), 326C, Government 357C, 357M (Topic 5). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **CTI 326J. African American Social and Political Thought.**

Same as African and African Diaspora Studies 351M, American Studies 321J, and Government 335G. Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351M, 374D (Topic 21), American Studies 321J, Core Texts and Ideas 326 (Topic 3), 326J, Government 335G, 335M (Topic 10). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **CTI 326L. Civil Liberties.**

Same as Government 357D. Explore the United States constitution and Supreme Court with a focus on civil rights and liberties. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 326 (Topic: Civil Liberties), 326L, Government 357D, 357M (Topic 4). Prerequisite: Six semester hours of lower-division coursework in Government.

### **CTI 326R. Regime Perspectives on American Politics.**

Same as Government 379C and Liberal Arts Honors 351J. Explore American politics and culture and examine how the parts of America fit together as a whole. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 326R, 335 (Topic: Regime Persp Amer Poltc-Honors), Government 379C, 379S (Topic 3), Liberal Arts Honors 350 (Topic: Regime Persp on Amer Politics), 351J. Prerequisite: Upper-division standing, six semester hours of government coursework, and a grade point average of at least 3.50.

### **CTI 326S. Structure of Individual Liberties.**

Same as Government 357G. Explore the ways in which the Constitution protects individual rights while accommodating the often competing claims of state, groups, and communities. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 326 (Topic: Structure of Indiv Liberties), 326S, Government 357G, 357M (Topic 8). Prerequisite: Six semester hours of lower-division coursework in Government.

### **CTI 326T. The Tragicomedy of American Democracy.**

Same as African and African Diaspora Studies 351D and American Studies 370 (Topic 44). Examines the foundational ideas and practices essential to the unfolding of American democracy by focusing on founding documents, public speeches, major political conflicts, and canonical texts of political philosophy. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351D, 372F (Topic 15), American Studies 370 (Topic 44), Core Texts and Ideas 326 (Topic 2), 326T. Prerequisite: Upper-division standing.

### **CTI 327C. Archaic Greece: Society and Culture.**

Same as Classical Civilization 348K. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Archaic Greece: Soc/Culture), 348K, Core Texts and Ideas 327C. Prerequisite: Upper-division standing.

### **CTI 327D. The History of Rome: The Republic.**

Same as Ancient History and Classical Civilization 325 (Topic 1) and History 321M. A survey of Roman history from the founding of Rome to the death of Julius Caesar. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 1), Core Texts and Ideas 327D, 375 (Topic: Hist of Rome: The Republic), History 321M. Prerequisite: Upper-division standing.

**CTI 328D. Death and the Afterlife in Graeco-Roman Antiquity.**

Same as Classical Civilization 348G and Religious Studies 365G. Explore the afterlife from Near Eastern myths and Homer through Greek and Roman antiquity to the early Church Fathers. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Death/Afterlife Graeco-Roman), 348G, Core Texts and Ideas 328D, Religious Studies 365G. Prerequisite: Upper-division standing.

**CTI 329. The Ancient Historians.**

Same as Ancient History and Classical Civilization 325 (Topic 13), Classical Civilization 322D, and Comparative Literature 323 (Topic 59). Examines the main works of ancient historiography, and provides grounding in the central issues with which these works engage. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 13), Classical Civilization 322 (Topic 13), 322D, Comparative Literature 323 (Topic 59), Core Texts and Ideas 329. Prerequisite: Upper-division standing.

**CTI 330J. Jerusalem and Athens.**

Same as Government 379G and Liberal Arts Honors 351M. Examine the age-old confrontation between the teaching of the Bible and the politics and philosophy of the ancient Greeks. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 330J, 335 (Topic: Jerusalem and Athens-Honors), 375 (Topic: Jerusalem and Athens-Honors), Government 379G, 379S (Topic: Jerusalem and Athens-Honors), 379S (Topic 4), Liberal Arts Honors 350 (Topic: Jerusalem and Athens), 351M. Prerequisite: Upper-division standing, six semester hours of coursework in government, and a grade point average of at least 3.50.

**CTI 330M. Machiavelli: Politics and Culture.**

Same as Ancient History and Classical Civilization 330 (Topic 6), History 344R, and Religious Studies 357C. Through Niccolò Machiavelli's chief writings, consider the local, regional, Mediterranean, European, and global aspects of his work. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Machiavelli), 330 (Topic 6), Core Texts and Ideas 330M, 375 (Topic: Machiavelli), European Studies 346 (Topic: Machiavelli), History 344R, 350L (Topic: Machiavelli), Liberal Arts Honors 350 (Topic: Machiavelli), 351P, Religious Studies 357 (Topic: Machiavelli), 357C. Prerequisite: Upper-division standing.

**CTI 331. Origins of Liberalism.**

Same as Philosophy 342L. Examine the theory of liberal democracy through a study of its development in historical, religious, and political contexts. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 331, 335 (Topic: Origins of Liberalism), 335 (Topic 4), European Studies 346 (Topic: Origins of Liberalism), Philosophy 342L, 354 (Topic: Origins of Liberalism), 354 (Topic 5). Prerequisite: Upper-division standing.

**CTI 332. The Sacred and the Secular in Modern European Thought.**

Same as European Studies 346 (Topic 32), History 361G, and Religious Studies 357S. Introduces key themes and methodologies of intellectual history and social theory by exploring the dueling approaches to secularization and sacralization in modern European thought. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 332, 335 (Topic: Sacred and Secular in Modern European Thought), 335 (Topic 7), European Studies 346 (Topic: Sacred and Secular in Modern European Thought), 346 (Topic 32), History 361G, 362G (Topic: Sacred and Secular in Modern European

Thought), 362G (Topic 19), Religious Studies 357 (Topic: Sacred and Secular in Modern European Thought), 357 (Topic 20), 357S. Prerequisite: Upper-division standing.

**CTI 335C. History of Christian Philosophy.**

Same as Philosophy 356D. Examines the history of Christian philosophy through classic Christian thought, concerning what can be known and how people should live. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: History of Christian Philosophy), 335 (Topic 2), 335C, Philosophy 354 (Topic: History of Christian Philosophy), 354 (Topic 2), 356D. Prerequisite: Upper-division standing.

**CTI 335E. Hegel and the Formation of Modern European Identity.**

Same as European Studies 348 (Topic 6) and Government 335E. An in-depth study of how Hegel identifies the social conditions necessary for personal self-realization but also for freedom by means of political community. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Hegel and the Formation of Modern European Identity), 335 (Topic 3), 335E, European Studies 348 (Topic: Hegel and the Formation of Modern European Identity), 348 (Topic 6), Government 335E, 335M (Topic: Hegel and the Formation of Modern European Identity), 335M (Topic 13). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**CTI 335M. Marx and Marxist Theory.**

Same as European Studies 346 (Topic 30), History 332R, and Philosophy 342M. Introduction to the writings of Karl Marx as well as to those of his intellectual successors in Europe and around the globe in the nineteenth and twentieth centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Marx and Western Marxism), 335M, European Studies 346 (Topic: Marx and Western Marxism), 346 (Topic 30), History 332R, 362G (Topic: Marx and Western Marxism), Philosophy 334K (Topic: Marx and Western Marxism), 342M. Prerequisite: Upper-division standing.

**CTI 335W. Women in the History of Political Thought.**

Same as Government 335F and Women's and Gender Studies 345 (Topic 32). Examines the themes of women, the family, and the private sphere in the history of political theory. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Women in Hist of Polit Thought), 335 (Topic 5), 335W, Government 335F, 335M (Topic: Women in History of Political Thought), 335M (Topic 17), Women's and Gender Studies 345 (Topic: Women in History of Political Thought), 345 (Topic 32). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**CTI 340. Ancient Epic.**

Same as Classical Civilization 322C. Explore epic poems of Greece and Rome in translation. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 322 (Topic 4), 322C, Core Texts and Ideas 340, 345 (Topic: Ancient Epic), 345 (Topic 9). Prerequisite: Upper-division standing.

**CTI 341. Moral Agency In Greek Tragedy.**

Same as Classical Civilization 348 (Topic 16). Subjects include the masterpieces of Greek tragedy, the social and cultural background of the texts, and questions posed by the texts. Three lecture hours a week for one semester. Only one of the following may be counted: Classical

Civilization 348 (Topic 16), Core Texts and Ideas 341, 345 (Topic 3). Prerequisite: Upper-division standing.

#### **CTI 342. Satan and the Idea of Evil.**

Same as Religious Studies 356D. Explore the history and breadth of Satan's role as a character (or background presence) in literature while developing close-reading techniques for literary analysis that can be applied across diverse eras, forms, and genres. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 342, 345 (Topic: Satan and the Idea of Evil), 345 (Topic 2), Religious Studies 356D, 357 (Topic: Satan and the Idea of Evil). Prerequisite: Upper-division standing.

#### **CTI 343. Love in the East and West.**

Same as Comparative Literature 323 (Topic 36), Middle Eastern Languages and Cultures 321 (Topic 25), and Middle Eastern Studies 342 (Topic 33). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 36), Core Texts and Ideas 343, 345 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 25), Middle Eastern Studies 342 (Topic 33). Prerequisite: Upper-division standing.

#### **CTI 344. Epics and Heroes of India.**

Same as Ancient History and Classical Civilization 330 (Topic 2), Asian Studies 373G, and History 350L (Topic 54). Focus on India's classical epics, the Mahabharata and the Ramayana, with emphasis placed on understanding the epic characters in relation to the heroic traditions of premodern India, as well as on the role of the epics in contemporary Indian political and religious culture. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic 2), Asian Studies 372 (Topic 40), 373G, Core Texts and Ideas 345 (Topic 11), 344, History 350L (Topic 54). Prerequisite: Upper-division standing.

#### **CTI 344D. Dante.**

Same as English 366D, European Studies 347 (Topic 23), and Italian Civilization 348. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 344D, 345 (Topic: Dante), English 322 (Topic 23), 366D, European Studies 347 (Topic: Dante), 347 (Topic 23), Italian Civilization 348, 349 (Topic 2). Prerequisite: Upper-division standing.

#### **CTI 344M. Italian Masterpieces.**

Same as European Studies 347 (Topic 52) and Italian Civilization 337. Study of representative texts in visual arts, film, literature, and opera, from the Renaissance to the present, in their historical context. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 344M, 375 (Topic: Italy Masters: Lit/Film/Art), European Studies 347 (Topic: Italy Masters: Lit/Film/Art), 347 (Topic 52), Italian Civilization 337, 349 (Topic: Italy Masters: Lit/Film/Art). Prerequisite: Upper-division standing.

#### **CTI 345L. Leadership: King Arthur to Queen Elizabeth.**

Explores major works of English literature, poetry, and drama from the 14th-16th century and European philosophy, with special attention to the universal question: what makes a good leader? Historical and current analysis of how authors model the duties of good citizens in idealized and critical depictions of fictional leaders—like King Arthur and his knights—and real leaders—like Richard II, Henry V, and Elizabeth I, as well as works written to advise rulers on good governance. Three lecture hours a week for one semester. Core Texts and Ideas 345 (Topic: Arthur-Elizabeth: Leadership) and 345L may not both be counted. Prerequisite: Upper-division standing.

#### **CTI 346. The Major Works of Dostoevsky.**

Same as Comparative Literature 323 (Topic 30) and Russian, East European, and Eurasian Studies 325 (Topic 10). Explores the dilemmas of homicide, suicide, patricide, and redemption in the novels of Fyodor Dostoevsky. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 30), Core Texts and Ideas 345 (Topic 5), 346, European Studies 347 (Topic 10), Russian 360 (Topic 1), Russian, East European and Eurasian Studies 325 (Topic 10). Prerequisite: Upper-division standing.

#### **CTI 347. The Russian Novel.**

Same as Comparative Literature 323 (Topic 29) and Russian, East European, and Eurasian Studies 325 (Topic 9). A survey of classic Russian authors as well as experimental works from the nineteenth through the twenty-first century. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 29), Core Texts and Ideas 345 (Topic 6), 347, English 322 (Topic 37), European Studies 347 (Topic 22), Russian 356 (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic 9). Prerequisite: Upper-division standing.

#### **CTI 348. War and Revolution in Russian Literature and Culture.**

Same as Comparative Literature 323 (Topic 31) and Russian, East European, and Eurasian Studies 325 (Topic 18). Examines Russian narratives of war and revolution as represented in fiction, cinema, and journalism. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 31), Core Texts and Ideas 345 (Topic 8), 348, Russian 356 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic 18). Prerequisite: Upper-division standing.

#### **CTI 350. Masterworks of World Drama.**

Studies major tragedies, comedies, and historical plays from various epochs, including at least one of Shakespeare's plays. Explores themes related to ethics, politics, and human nature, as well as the craft of the playwright. Students attend and discuss at least one play performance. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

#### **CTI 351. The Idea of the Beautiful.**

Classical philosophical discussions of the idea of the beautiful (or noble or sublime), illustrated through selected works of art, drama, and literature. Explores the human perception of and response to beauty and its relation to such ideas as happiness and the promise of happiness, moral nobility or selflessness, and the divine. Philosophical works are studied in connection with examples drawn from the arts and are considered in their historical contexts. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing.

#### **CTI 352D. Early Italian Renaissance Art to 1470.**

Same as Art History 331K and European Studies 347 (Topic 29). Traces the beginnings of the "rebirth" (renaissance) of the visual arts, from the end of the Middle Ages to the heyday of the Medici. Works of art are analyzed both in formal terms and in relation to contemporary society, religion, philosophy, economics, statecraft, gender, and other significant issues. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 331K, Core Texts and Ideas 352D, 375 (Topic: Early Italian Renaissance Art to 1470), European Studies 347 (Topic: Early Italian Renaissance Art to 1470), 347 (Topic 29).

#### **CTI 354. Abraham and Abrahamic Religions.**

Same as Jewish Studies 363D, Middle Eastern Studies 342 (Topic 52), and Religious Studies 353G. Examines the figure of Abraham as

portrayed in the Bible and the reception of that portrayal in Judaism, Christianity, and Islam. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354, 375 (Topic: Abraham & Abrahamic Religions), Jewish Studies 363 (Topic: Abraham & Abrahamic Religions), 363D, Middle Eastern Studies 342 (Topic: Abraham & Abrahamic Religions), 342 (Topic: 52), Religious Studies 353 (Topic: Abraham & Abrahamic Religions), 353G. Prerequisite: Upper division standing.

#### **CTI 354F. The Five Books of Moses.**

Same as Jewish Studies 364 (Topic 15), Middle Eastern Studies 342 (Topic 68), and Religious Studies 353R. Study the socio-historical circumstances that gave shape to the first five books of the Bible: Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. Examine how these five books achieved the status of sacred literature. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354F, 375 (Topic: The Five Books of Moses), Jewish Studies 364 (Topic: The Five Books of Moses), 364 (Topic 15), Middle Eastern Studies 342 (Topic: The Five Books of Moses), 342 (Topic 68), Religious Studies 353 (Topic: The Five Books of Moses), 353R, 361 (Topic: The Five Books of Moses). Prerequisite: Upper-division standing.

#### **CTI 354J. The Book of Job.**

Same as Jewish Studies 363 (Topic 29), Middle Eastern Studies 342 (Topic 67), and Religious Studies 365J. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354J, 375 (Topic: The Book of Job), Jewish Studies 363 (Topic: The Book of Job), 363 (Topic 29), Middle Eastern Studies 342 (Topic: The Book of Job), 342 (Topic 67), Religious Studies 361 (Topic: The Book of Job), 365 (Topic: The Book of Job), 365J. Prerequisite: Upper-division standing.

#### **CTI 354L. Law and Justice in the Bible.**

Same as Jewish Studies 363 (Topic 30), Middle Eastern Studies 342 (Topic 66), and Religious Studies 353K. Examine the legal traditions of the Torah (Pentateuch) and what they reveal about the practice of law and justice in ancient Israel and the wider biblical world. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354L, Jewish Studies 363 (Topic 30), Middle Eastern Studies 342 (Topic: Law/Justice in the Bible), 342 (Topic 66), Religious Studies 353 (Topic: Law/Justice in the Bible), 353K. Prerequisite: Upper-division standing.

#### **CTI 354P. Biblical Prophecy.**

Same as Jewish Studies 363 (Topic 28), Middle Eastern Studies 342 (Topic 37), and Religious Studies 353N. An introduction to the diversity of prophetic literature in the Old Testament, its historical development, social context, and Near Eastern parallels. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354P, 375 (Topic: Biblical Prophecy), Jewish Studies 363 (Topic: Biblical Prophecy), 363 (Topic 28), Middle Eastern Languages and Cultures 321 (Topic 24), Middle Eastern Studies 342 (Topic 37), Religious Studies 353 (Topic: Biblical Prophecy), 353N, 361 (Topic: Biblical Prophecy). Prerequisite: Upper-division standing.

#### **CTI 355. The Bible in the Colonial Americas.**

Same as History 363F, Latin American Studies 366 (Topic 34), and Religious Studies 366C. Varied perspectives on the central role played by the Old Testament in the construction of colonial cultures in the Americas. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 355, 375 (Topic 6), History 363F, 363K (Topic 5), Latin American Studies 366 (Topic

34), Religious Studies 366 (Topic 3), 366C. Prerequisite: Upper-division standing.

#### **CTI 355R. The Age of Reformation.**

Same as History 343 and Religious Studies 344. Examines late medieval religion, the rise of Protestant movements, and the Catholic response in their cultural, political, and social contexts. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 355R, 375 (Topic: The Age of Reformation), History 343, Religious Studies 344. Prerequisite: Upper-division standing.

#### **CTI 355T. Debating the Bible in the Twenty-First Century.**

Same as American Studies 327J and Religious Studies 346S. Examine the ways in which individuals, primarily in the United States, have regarded the Bible as relevant or irrelevant to contemporary life. Discuss contemporary controversial issues in which the Bible has played a role and how these relate to earlier controversies, such as the position of the Bible on slavery. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Debating the Bible in 21st Century), 327J, Core Texts and Ideas 355T, 375 (Topic: Debating the Bible in 21st Century), Religious Studies 346 (Topic: Debating the Bible in 21st Century), 346 (Topic 11), 346S. Prerequisite: Upper-division standing; introductory courses in the Hebrew Bible and/or New Testament recommended.

#### **CTI 357. Islamic Theology.**

Same as Islamic Studies 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 27), Middle Eastern Studies 342 (Topic 35), and Religious Studies 358U. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 375 (Topic 2), 357, Islamic Studies 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 27), Middle Eastern Studies 342 (Topic 35), Religious Studies 358 (Topic 14), 358U. Prerequisite: Upper-division standing.

#### **CTI 363. The French Revolution and Napoleon.**

Same as European Studies 346 (Topic 25) and History 353. Analysis of the social, political, and economic origins and outcomes of the French Revolution and Napoleon's empire. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: French Revolution and Napoleon), 346 (Topic 25), Core Texts and Ideas 363, 375 (Topic: French Revolution and Napoleon), History 353. Prerequisite: Upper-division standing.

#### **CTI 365. Classics of Social Scientific Thought.**

Same as Government 335P. Studies a selection of foundational modern classics in economics, psychology, sociology, political science, and anthropology, drawn mainly from the nineteenth and twentieth centuries. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 365, Government 335M (Topic: Classics of Social Scientific Thought), 335P. Prerequisite: Upper-division standing.

#### **CTI 371. Einstein in the Age of Conflict.**

Same as History 350L (Topic 64: Einstein in the Age of Conflict). Following the life and work of Albert Einstein, course examines the rise of the theories of relativity and quantum mechanics upon the stage of international political upheaval. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 370 (Topic: Einstein in the Age of Conflicts), 371, History 350L (Topic 64). Prerequisite: Upper-division standing.

#### **CTI 371N. Newton's Principia.**

Same as History 366Q. Examine key sections of Newton's Principia Mathematica Philosophiae Naturalis. Three lecture hours a week for

one semester. Only one of the following may be counted: Core Texts and Ideas 371N, 375 (Topic: Newton's Principia), History 366Q, 366N (Topic: Newton's Principia). Prerequisite: Upper-division standing.

### **CTI 372. Darwin and the Politics of Evolution.**

Same as Government 353D. A careful reading of Darwin's influential *Origin of the Species by Means of Natural Selection*, together with an examination of the religious, political, and scientific controversies the book has inspired from its first publication to the present day. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 370 (Topic: The Politics of Evolution), 372, Government 335M (Topic: The Politics of Evolution), 353D. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **CTI 373. Great Works In Medicine.**

Same as Ancient History and Classical Civilization 330 (Topic 7). Examine signature works in the history of medicine. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Great Works In Medicine), 330 (Topic 7), Core Texts and Ideas 373, 375 (Topic: Great Works In Medicine). Prerequisite: Upper-division standing.

### **CTI 374. Biology, Behavior, and Injustice.**

Same as History 322R. Explores questions about human behavior related to biological factors as compared with personal experiences and societal standards. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 370 (Topic 2), 374, History 322R, 366N (Topic 16). Prerequisite: Upper-division standing.

### **CTI 375. Topics in Core Texts and Ideas.**

Study of classic texts, connected historically or thematically. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Core Texts and Ideas 375 and Western Civilization 320 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: The Qur'an.** Same as Comparative Literature 323 (Topic 37), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, and Women's and Gender Studies 340 (Topic 54).

The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upper-division standing.

**Topic 3: Enlightenment and Revolution.** Same as European Studies 346 (Topic 14) and History 350L (Topic 81). Examines the relationship between the intellectual project of the Enlightenment and the political and social transformations that unfolded in western Europe and North America from the beginnings of the Dutch Revolt in the 1560s to the decade following the Paris Commune of 1871. Only one of the following may be counted: Core Texts and Ideas 375 (Topic: Enlightenment and Revolution), 375 (Topic 3), European Studies 346 (Topic: Enlightenment and Revolution), 346 (Topic 14), History 350L (Topic: Enlightenment and Revolution), 350L (Topic 81). Additional prerequisite: Upper-division standing.

**Topic 4: Art and the City in Renaissance Italy.** Same as Art History 331P and European Studies 347 (Topic 33). Art, architecture, and emerging civic identity in Florence, Siena, Venice, and other Italian Renaissance city-states. Three lecture hours a week for one semester.

Only one of the following may be counted: Art History 331P, 364 (Topic: Art and the City in Renaissance Italy), Core Texts and Ideas 375 (Topic: Art and the City in Renaissance Italy), 375 (Topic 4), European Studies 347 (Topic: Art and the City in Renaissance Italy), 347 (Topic 33), Italian Civilization 349 (Topic: Art and the City in Renaissance Italy), Western Civilization 320 (Topic: Art and the City in Renaissance Italy).

**Topic 7: Archaic and Classical Greece.** Same as Ancient History and Classical Civilization 325 (Topic 7) and History 354E. Survey of Greek history from the emergence of the city-states to the rise of Macedonia. Two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 4), 325 (Topic 7), Classical Civilizations 354C, Core Texts and Ideas 375 (Topic: Archaic and Classical Greece), 375 (Topic 7), History 354C, 354E. Additional prerequisite: Upper-division standing.

**Topic 8: Values and Leadership in Ancient World.** Same as Classical Civilization 348 (Topic 23). Only one of the following may be counted: Classical Civilization 348 (Topic: Values and Leadership in Ancient World), 348 (Topic 23), Core Texts and Ideas 375 (Topic: Values and Leadership in Ancient World), 375 (Topic 8), History 350L (Topic: Values and Leadership in Ancient World). Additional prerequisite: Upper-division standing.

### **CTI 379. Conference Course.**

Intensive tutorial study of selected major texts. Individual instruction. May be repeated for credit. Prerequisite: Upper-division standing and consent of the director of the Jefferson Center and instructor.

## **Graduate Courses**

## **Professional Courses**

# **Creative Writing Courses**

## **Creative Writing: CRW**

### **Lower-Division Courses**

#### **CRW 315D. Playwriting I.**

Same as Theatre and Dance 315. The study and practice of writing plays. Three lecture hours a week for one semester. Creative Writing 315D and Theater and Dance 315 may not both be counted.

#### **CRW 315F. Introduction to Writing Fiction.**

Intended for students with minimal prior experience in creative writing. Three lecture hours or one lecture hour and three workshop hours a week for one semester. Prerequisite: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

#### **CRW 315P. Introduction to Writing Poetry.**

Intended for students with minimal prior experience in creative writing. Three lecture hours or one lecture hour and three workshop hours a week for one semester. Prerequisite: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

## **Upper-Division Courses**

### **CRW 325. Topics in Creative Writing.**

Detailed study and practice of the techniques of biography, creative nonfiction, or other special topics of creative writing; includes reading and analysis of contemporary models. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: One of the following: Comparative Literature 315, English 303D (or 603B), 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 303D (or 603B).

**Topic 1: Writing Border Narratives.** Same as Mexican American Studies 374 (Topic 34). Examines the United States and Mexico border through the use of the personal essay in its various forms. Students write personal essays that focus on their relationships to the border. Only one of the following may be counted: Creative Writing 325 (Topic: Writing Border Narratives), 325 (Topic 1), Mexican American Studies 374 (Topic: Writing Border Narratives), 374 (Topic 34). Additional prerequisite: Comparative Literature 315, English 303D (or 603B), 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 303D (or 603B).

#### **CRW 325E. Personal Essay.**

Three lecture hours a week for one semester. Creative Writing 325 (Topic: Personal Essay) and 325E may not both be counted. Prerequisite: One of the following: Comparative Literature 315, English 303D (or 603B), 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 303D (or 603B).

#### **CRW 325F. Fiction Writing.**

Detailed study and practice of the techniques of fiction writing; includes reading and analysis of contemporary models. Three lecture hours a week for one semester. Prerequisite: One of the following: Comparative Literature 315, English 303D (or 603B), 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 303D (or 603B).

#### **CRW 325M. Creative Writing.**

Detailed study and practice of the techniques of fiction, poetry, and other genres of creative writing; includes reading and analysis of contemporary models. Three lecture hours or one lecture hour and three workshop hours a week for one semester. Prerequisite: One of the following: Comparative Literature 315, English 303D (or 603B), 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 303D (or 603B).

#### **CRW 325P. Poetry Writing.**

Detailed study and practice of the techniques of poetry writing; includes reading and analysis of contemporary models. Three lecture hours a week for one semester. Prerequisite: One of the following: Comparative Literature 315, English 303D (or 603B), 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 303D (or 603B).

#### **CRW 325S. Screenwriting.**

Study and practice the techniques of screenwriting. Read and analyze contemporary models. Three lecture hours and one discussion hour a week for one semester. Creative Writing 325S and Radio-Television-Film 333 may not both be counted. Prerequisite: One of the following: Comparative Literature 315, English 303D (or 603B), 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 303D (or 603B).

#### **CRW 325T. Writing for Black Performance.**

Same as African and African Diaspora Studies 330F, American Studies 321Q, and Theatre and Dance 357T (Topic 5). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330F, 372E (Topic: Writing for Black Performance), American Studies 321 (Topic: Writing for Black Performance), 321Q, Creative Writing 325T, English 376M (Topic: Writing for Black Performance), Theatre and Dance 357T (Topic: Writing for Black Performance), 357T (Topic 5). Prerequisite: Upper-division standing.

#### **CRW 330. Literature for Writers.**

Readings in fiction, poetry, drama, literary criticism, biography, and autobiography from the point of view of a creative writer. Three lecture hours a week for one semester. Prerequisite: One of the following:

Creative Writing 325 (or English 325), 325F (or English 325F), 325M, 325P (or English 325P).

#### **CRW 335. Business of Writing.**

Same as English 335P. Study the book publishing landscape including traditional and non-traditional career paths available to writers and those interested in the publishing industry. Analyze the publishing process, from concept to finished book: the acquisition, editorial, publicity, marketing, and sales stages of a book's life. Three lecture hours a week for one semester. Only one of the following may be counted: Creative Writing 335, English 324 (Topic: Business of Writing), 335P. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

#### **CRW 340D. Playwriting II.**

Same as Theatre and Dance 325. Emphasis on the form and writing of the full-length play or equivalent. Three lecture hours a week for one semester. Creative Writing 340D and Theatre and Dance 325 may not both be counted. Prerequisite: Upper-division standing, Creative Writing 315D or Theatre and Dance 315, and consent of instructor.

#### **CRW 340F. Short Story Workshop.**

Practice in writing the short story, with study of contemporary models. The equivalent of three lecture hours a week for one semester. Creative Writing 340F and English 341 may not both be counted. Prerequisite: Creative Writing 325F (or English 325F), or 325M.

#### **CRW 340P. Poetry Workshop.**

Practice in writing poetry, with study of contemporary models. The equivalent of three lecture hours a week for one semester. Creative Writing 340P and English 341L may not both be counted. Prerequisite: Creative Writing 325M or 325P (or English 325P).

#### **CRW 355D. Playwriting III.**

Same as Theatre and Dance 355. Focus on experiments in revising dramatic text in order to create a common vocabulary around narrative structure. Revision often includes the creation of multiple new drafts, digging through past drafts for abandoned themes, lost focus, and new inspiration as well as exploring character, narrative, and/or language. Three lecture hours a week for one semester, with laboratory hours as required. Only one of the following may be counted: Creative Writing 355D, Theatre and Dance 355T (Topic: Playwriting III), 355. Prerequisite: Upper-division standing, Creative Writing 340D or Theatre and Dance 325, and consent of instructor.

#### **CRW 355F. Advanced Fiction Workshop.**

A third semester seminar-style workshop in fiction for experienced creative writers. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Creative Writing 355F, 660, English 355K. Prerequisite: Creative Writing 340F (or English 341).

#### **CRW 355P. Advanced Poetry Workshop.**

A third semester seminar-style workshop in poetry for experienced creative writers. The equivalent of three lecture hours a week for one semester. Creative Writing 355P and English 355K may not both be counted. Prerequisite: Creative Writing 340P (or English 341L).

#### **CRW 660. Intensive Creative Writing.**

An accelerated seminar-style workshop for highly motivated students. Designed to be taken over two consecutive summer sessions; offered only during the summer semester. Three lecture-workshop hours a week for two semesters. Completion of this course is equivalent to completion of both Creative Writing 340F and 355F. Only one of the following may

be counted: Creative Writing 340F and 355F; or 660; or English 355K.  
Prerequisite: For 660A, credit or registration for Creative Writing 325F or English 325F; for 660B, Creative Writing 660A.

### **CRW 370H. Honors Creative Writing Project.**

For advanced students already proficient in writing who wish to work under supervision on specific and substantial projects. The equivalent of three lecture hours a week for one semester. Creative Writing 370H and English 367K may not both be counted. Prerequisite: Consent of the honors adviser.

### **CRW 375. Conference Course in Creative Writing.**

Continue independent work in a creative project with a faculty advisor. The equivalent of three lecture hours a week for one semester. May be repeated for credit twice. May be repeated for credit. Prerequisite: Creative Writing 370H; approval of written application by supervising instructor and the director of undergraduate creative writing.

## **Graduate Courses**

## **Professional Courses**

# **Critical Disability Studies Courses**

## **Critical Disability Studies: CDI**

### **Lower-Division Courses**

### **Upper-Division Courses**

#### **CDI 355. Topics in Critical Disability Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

## **Graduate Courses**

## **Professional Courses**

# **Cultural Studies Courses**

## **Cultural Studies: CLS**

### **Lower-Division Courses**

#### **CLS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Folklore and Cultural Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in cultural studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **CLS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Folklore and Cultural Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in cultural studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **CLS 340. Conference Course in Folklore and Cultural Studies.**

Supervised reading and research on a folklore or cultural studies subject, including the writing of an original paper. Conference course. Prerequisite: Upper-division standing and a concentration in cultural studies.

## **Graduate Courses**

## **Professional Courses**

# **Curriculum and Instruction Courses**

## **Curriculum and Instruction: EDC**

### **Lower-Division Courses**

#### **EDC 101E. Orientation to Teaching in the Elementary School.**

Open to all University students. Discussion sessions and assignments in public schools; designed to help students make teaching career decisions. One discussion hour and three hours of fieldwork a week for one semester. May be repeated for credit.

#### **EDC 101S. Orientation to Teaching in the Secondary School.**

Open to all University students. Discussion sessions and assignments in public schools; designed to help students make teaching career decisions. One discussion hour and three hours of fieldwork a week for one semester. May be repeated for credit.

#### **EDC 319. Qualitative Inquiry and Education for Social Change.**

Examines the socio-historical contexts of education for minoritized groups in the U.S. through empirical approach of critical qualitative inquiry in education. Explores qualitative and historical studies in which students, teachers, administrators, and parents seek to change or reform their educational experiences. Entails research in schools and non-school settings. Three lecture hours a week for one semester.

### **Upper-Division Courses**

#### **EDC 331E. School Organization and Classroom Management in Elementary Schools.**

Administrative structure of elementary schools; concepts, principles, and strategies for establishing an orderly classroom environment, preventing inappropriate behavior, and promoting student involvement in academic work. Three lecture hours a week for one semester, and sixteen to twenty hours of fieldwork a week in an elementary school. Only one of the following may be counted: Communication Sciences and Disorders 331E; Curriculum and Instruction 331E; Speech, Language, and Hearing Sciences 331E. Prerequisite: Admission to the professional development sequence of courses, completion of seventy-two semester hours of coursework, and a University grade point average of at least 2.50.

#### **EDC 331S. School Organization and Classroom Management in Secondary Schools.**

Administrative structure of secondary schools; concepts, principles, and strategies for establishing an orderly classroom environment, preventing inappropriate behavior, and promoting student involvement in academic work. Three lecture hours a week for one semester, with at least sixty hours of fieldwork in a secondary school. Prerequisite: Admission to the professional development sequence of courses, completion of seventy-two semester hours of coursework, and a University grade point average of at least 2.50.

**EDC 332S. Designs for Instruction.**

One of the beginning courses in the professional development sequence for approved programs in secondary education. Three lecture hours a week for one semester, with a single seven-hour media competency evaluation to be arranged. Prerequisite: Admission to the professional development sequence of courses, completion of seventy-two semester hours of coursework, a University grade point average of at least 2.50, and concurrent enrollment in Curriculum and Instruction 331S.

**EDC 333W. Introduction to Teaching.**

Open to all upper-division students. Overview of the objectives, organization, and operation of schools; the teaching process; teaching as a professional career. Two lecture hours and two hours of fieldwork a week for one semester. Prerequisite: Upper-division standing.

**EDC 339C. Community Literacy.**

Three lecture hours a week for one semester. Prerequisite: Admission to the professional development sequence of courses.

**EDC 339D. Reading Assessment and Development.**

Three lecture hours a week for one semester. Prerequisite: Admission to the professional development sequence of courses.

**EDC 339E. Secondary School Literacy across the Disciplines.**

Designed for students in a University secondary teacher preparation program. Three lecture hours a week for one semester.

**EDC 339F. Adolescent Literacy.**

Designed for students in a University secondary teacher preparation program. Social, political, cultural, emotional, and personal perspectives on adolescent literacy. Subjects may include adolescent literacy practices in and out of school; literacy in relation to identity, peer communities, meaning, communication, and social engagement; curricula that emphasize the social and civic purposes of literacy; and motivation, fulfillment, and democratic participation as educational outcomes. Three lecture hours a week for one semester.

**EDC 339G. Literacy Seminar.**

Three lecture hours a week for one semester. Prerequisite: Admission to the professional development sequence of courses.

**EDC 340C. Spanish Language Methods for the Bilingual Classroom Teacher I.**

Restricted to bilingual generalist certification students. Designed primarily to help prospective bilingual education teachers expand their oral Spanish proficiency for instructional purposes in the bilingual education classroom. Three lecture hours a week for one semester, with field hours to be arranged. Prerequisite: Credit or registration for Spanish 611D or 312L.

**EDC 340D. Spanish Language Methods for the Bilingual Classroom Teacher II.**

Restricted to bilingual generalist certification students. Intensive practice in the various aspects and conventions governing literacy within the elementary bilingual education curriculum. Three lecture hours a week for one semester, with field hours to be arranged. Prerequisite: Curriculum and Instruction 340C, Spanish 611D or 312L, and admission to the professional development sequence of courses.

**EDC 340E. Latino Children's Literature for Bilingual Teachers.**

Restricted to students seeking certification in bilingual generalist. Covers the use of oral and written literature for children in bilingual programs while examining the history and development of Spanish-language

children's literature from social, cultural, and political perspectives. Subjects may include foundational books, authors, and illustrators of Latina/o children's literature; criteria for evaluating culturally authentic children's literature; multimedia and online resources related to bilingual children's literature; and the literary response process. Three lecture hours a week for one semester, with field hours to be arranged. Prerequisite: Knowledge of Spanish and completion of at least thirty-six semester hours of coursework.

**EDC 340F. Foundations of Bilingual Education.**

Restricted to bilingual generalist certification students. An overview of theory, practice, programs, and policy related to bilingual education as implemented in the United States. Designed to give students an opportunity to learn about and discuss issues related to bilingual education, and the education of linguistically and culturally diverse populations. Three lecture hours a week for one semester, with field hours to be arranged.

**EDC 341C. Early Childhood Education.**

Introduces socio-cultural understandings of key early childhood education approaches. Critically examines these approaches in relation to their constructions of the young child as a learner, images of the early childhood educator, the social purposes of early childhood education institutions, and implications for culturally sustaining pedagogy. Three lecture hours a week for one semester.

**EDC 341D. Early Childhood Program Development.**

Focuses on strategies for developing and supporting inquiry-based curriculum in early childhood education classrooms. Introduces pedagogical documentation as a tool to support curriculum development that is critically reflective, culturally sustaining and promotes a culture of inquiry in early childhood environments. Three lecture hours a week for one semester.

**EDC 343. Informal Science Education.**

Three lecture hours and one three-hour field laboratory a week for one semester, with one four-hour Saturday field trip to be arranged. Prerequisite: Upper-division standing, six semester hours of coursework in science, or consent of instructor.

**EDC 344. Digital Literacy for Teaching and Learning.**

Use of digital tools to increase technical, pedagogical, and administrative proficiencies in a series of hands-on laboratory projects involving word-processing, handling of databases and spreadsheets, multimedia presentations, digital image and video editing, web page creation, and tools to create digital storytelling, e-portfolios, and electronic gradebooks. Experiential foundation creates a repertoire of possibilities for content-specific, technology-supported teaching and learning associated with learner-centered, collaborative classrooms. Emphasis on the development of critical perspectives (including pedagogical, social, technical, cultural, ethical, economic, legal, and political) to help youth fully participate in digital learning. Three lecture hours a week for one semester.

**EDC 345. Curriculum Issues in Physical Education.**

Study of personal teaching and physical education programs. Accompanies student teaching. Three lecture hours a week for one semester. Prerequisite: A major in applied movement science, admission to the professional development sequence of courses, and concurrent enrollment in Curriculum and Instruction 951W.

### **EDC 350. Topics in Educational Studies.**

Analysis of selected topics and problems in education. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 3: Teaching Secondary Social Studies.** Restricted to students seeking secondary teaching certification in social studies. Explore instructional approaches to teaching in the disciplines of social studies through advanced field-based practice. Additional prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

### **EDC 350E, 650E, 950E. Elementary Grade Teaching Practicum.**

Supervised practicum in early childhood through grade four classroom teaching, conducted in cooperating schools, as part of the teacher preparation program. Consists of teaching, analysis, and evaluation. Two lecture hours and at least fifteen, thirty, or forty-five hours of fieldwork a week for one semester. Offered on the pass/fail basis only. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

### **EDC 351S, 651S, 951S. Secondary School Teaching Practicum.**

Supervised practicum in secondary classroom teaching, conducted in cooperating schools, as part of the teacher preparation program. Consists of teaching, analysis, and evaluation. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged. No more than nine semester hours of this course may be taken for credit. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

**Topic 1: Secondary School Teaching Practicum: English.** Restricted to students seeking secondary teaching certification in English. Offered on the pass/fail basis only.

**Topic 2: Secondary School Teaching Practicum: Social Studies.** Offered on the pass/fail basis only.

**Topic 3: Secondary School Teaching Practicum: Math.** Offered on the pass/fail basis only.

**Topic 4: Secondary School Teaching Practicum: Science.** Offered on the pass/fail basis only.

**Topic 5: Secondary School Teaching Practicum: Visual Art.** Offered on the pass/fail basis only.

### **EDC 351W, 651W, 951W. All Level Teaching Practicum.**

Supervised practicum in elementary, middle school, and secondary classroom teaching. Conducted in cooperating schools as part of the teacher preparation program. Consists of teaching, analysis, and evaluation. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

**Topic 1: All Level Teaching Practicum: Theatre.** Offered on the pass/fail basis only.

**Topic 2: All Level Teaching Practicum: Visual Art.** Offered on the pass/fail basis only.

**Topic 3: All Level Teaching Practicum: Dance.** Offered on the pass/fail basis only.

**Topic 4: All Level Teaching Practicum: Music.** Offered on the pass/fail basis only.

**Topic 5: All Level Teaching Practicum: Kinesiology.** Offered on the pass/fail basis only.

### **EDC 352S, 652S, 952S. Secondary Student Teaching Methods.**

Focus on secondary teaching, and addressing instructional design and assessment. For each semester hour of credit earned, one lecture hour a week for one semester. No more than nine semester hours of this course may be taken for credit. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **EDC 363. Social Entrepreneurship in Youth and Community Studies.**

Restricted to Youth and Community Studies majors. Explore social entrepreneurship and responsibility. Apply entrepreneurship skills and project management skills through individual or group assignments focusing on business development. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **EDC 364, 664. Internship.**

Supervised fieldwork or clinical work in the student's area of study. For 364, at least one conference hour and ten hours of fieldwork a week for one semester; for 664, at least one conference hour and twenty hours of fieldwork a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 364, Curriculum and Instruction 364, 664, Speech, Language, and Hearing Sciences 364. Offered on the pass/fail basis only. Prerequisite: Consent of instructor.

### **EDC 364C. Fieldwork in Youth and Community Studies.**

Restricted to Youth and Community Studies majors. Explore experiential learning in professional environments related to a chosen concentration area. Nine hours of fieldwork a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, University grade point average of at least 2.50, and consent of the faculty adviser.

### **EDC 665. Classroom Interactions and Project Based Instruction.**

Restricted to students admitted to the UTeach Natural Sciences post-baccalaureate program. Students are assigned to a mentor teacher classroom where they might continue as apprentice teachers the next semester. Students will be observing or teaching in the classroom at least 3 hours a week, in addition to the 6 contact hours per week. Students prepare, implement and analyze results of inquiry- and project-based lessons, focusing on student thinking and participation, and meeting the needs of students with reading and writing difficulties, those learning in a second language, and those with behavioral and psychological issues. Six lecture hours a week for one semester, with three additional fieldwork hours to be arranged. Curriculum and Instruction 665 and Science, Technology, Engineering, and Mathematics Education 695 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Curriculum and Instruction 365C or Science, Technology, Engineering, and Mathematics Education 385.

### **EDC 365C. Knowing and Learning in Math and Science.**

Same as UTeach-Natural Sciences 350. Restricted to students in the UTeach-Natural Sciences program. Psychological foundations of learning; problem solving in mathematics and science education utilizing technology; principles of expertise and novice understanding of subject matter; implications of high-stakes testing; and foundations of formative and summative assessment. Three lecture hours a week for one semester; additional hours may be required. Curriculum and Instruction 365C and UTeach-Natural Sciences 350 may not both be

counted. Prerequisite: Credit with a grade of at least C- or registration for UTeach-Natural Sciences 101.

### **EDC 365D. Classroom Interactions.**

Same as UTeach-Natural Sciences 355. Restricted to students in the UTeach-Natural Sciences program. Principles of delivering effective instruction in various formats (lecture, lab activity, collaborative settings); examination of gender, class, race, and culture in mathematics and science education; overview of policy related to mathematics and science education. Three lecture hours a week for one semester; additional hours may be required. Curriculum and Instruction 365D and UTeach-Natural Sciences 355 may not both be counted. Prerequisite: The following courses with a grade of at least C-: Curriculum and Instruction 365C or UTeach-Natural Sciences 350, and UTeach-Natural Sciences 110; and a University grade point average of at least 2.50.

### **EDC 365E. Project-Based Instruction.**

Same as UTeach-Natural Sciences 360. Restricted to students in the UTeach-Natural Sciences program. Foundations of project-based, case-based, and problem-based learning environments; principles of project-based curriculum development in mathematics and science education; classroom management and organization of project-based learning classrooms. Three lecture hours a week for one semester with additional fieldwork hours to be arranged. Curriculum and Instruction 365E and UTeach-Natural Sciences 360 may not both be counted. Prerequisite: Curriculum and Instruction 365D or UTeach-Natural Sciences 355 with a grade of at least C-, and a University grade point average of at least 2.50.

### **EDC 370E. Elementary School Subjects.**

Curriculum content and organization, teaching procedures, materials, and research in elementary school subjects. Three lecture hours a week for one semester, including field hours in elementary schools. May be repeated for credit when the topics vary. Prerequisite: A University grade point average of at least 2.50.

**Topic 1: Reading.** Additional prerequisite: Admission to the professional development sequence of courses.

**Topic 2: Language Arts.** Additional prerequisite: Admission to the professional development sequence of courses.

**Topic 3: Science.** Additional prerequisite: Admission to the professional development sequence of courses.

**Topic 4: Social Studies.** Additional prerequisite: Admission to the professional development sequence of courses.

**Topic 5: Mathematics.** Additional prerequisite: Mathematics 316L or consent of the mathematics education faculty; and admission to the professional development sequence of courses.

**Topic 15: Special Adaptations for the Deaf.**

**Topic 19: Reading/Language Arts.** Additional prerequisite: Admission to the professional development sequence of courses.

**Topic 20: Teaching English as a Second Language.** The methods, teaching strategies, and materials for developing and assessing English language proficiency in culturally and linguistically diverse populations within the context of the elementary school curriculum.

**Topic 21: Teaching Elementary Physical Education.**

### **EDC 370S. Secondary School Subjects.**

Curriculum content and organization, teaching procedures, materials, and research in one secondary school subject. Three lecture hours a week for one semester. The topic in the appropriate field is required for secondary school teacher certification. May be repeated for credit when the topics vary. Prerequisite: Admission to the professional development sequence of courses, completion of ninety semester hours of coursework, and six semester hours of upper-division coursework in the appropriate subject; additional prerequisites vary with the topic.

### **Topic 1: Advanced Methods in English, Language Arts, and Reading.**

Restricted to students in a secondary teacher preparation program in the Department of Curriculum and Instruction.

**Topic 3: Advanced Methods in Social Studies.** Restricted to students in a secondary teacher preparation program in the department of Curriculum and Instruction.

**Topic 5: Advanced Methods in Foreign Language.** Restricted to students in a secondary teacher preparation program in the Department of Curriculum and Instruction.

**Topic 7: Art.** Curriculum and Instruction 370S (Topic 7) and 370S (Topic 16) may not both be counted. Additional prerequisite: Curriculum and Instruction 331S and 332S.

**Topic 8: Music (Vocal).** Additional prerequisite: Curriculum and Instruction 331S and 332S.

**Topic 9: Music (Instrumental).** Additional prerequisite: Curriculum and Instruction 331S and 332S.

**Topic 10: Drama.** Additional prerequisite: Curriculum and Instruction 331S and 332S.

**Topic 11: Speech.** Additional prerequisite: Consent of instructor.

**Topic 12: Teaching Secondary Physical Education.**

**Topic 15: Teaching Secondary School Theatre.** Curriculum and Instruction 370S (Topic: Sec Sch Sum: Theatre) and 370S (Topic 15) may not both be counted.

**Topic 16: Teaching Secondary School Visual Art.** Curriculum and Instruction 370S (Topic 7) and 370S (Topic 16) may not both be counted.

**Topic 17: Teaching Secondary School Dance.** Curriculum and Instruction 370S (Topic: Sec Sch Sub: Dance) and 370S (Topic 17) may not both be counted.

**Topic 18: Teaching Secondary School Music.** Curriculum and Instruction 370S (Topic: Sec Sch Sub: Music) and 370S (Topic 18) may not both be counted.

### **EDC 370W. All-Level School Subjects.**

Curriculum content and organization; teaching procedures, materials, and research in one school subject at all grade levels. Three lecture hours a week for one semester. The topic in the appropriate field is required for all-level school teacher certification. May be repeated for credit when the topics vary. Prerequisite: Admission to the professional development sequence of courses.

**Topic 1: English as a Second Language.**

**Topic 2: Art.**

**Topic 3: Music.**

**Topic 4: Theatre.**

**Topic 5: Foreign Language Education.**

### **EDC 371G. Teaching Young Children.**

Designed to provide students with frameworks for observing and interacting with young children in classroom settings, and to acquaint students with the teacher's varied roles in early childhood classrooms. Topics include cultural and linguistic diversity; supervising and interacting with children in a range of instructional groupings, including center-based and play-based learning activities and whole-group experiences; planning and implementing appropriate practices and strategies; and record-keeping and assessment. Three lecture hours a week for one semester, and twelve to sixteen hours of fieldwork a week in a public school. Prerequisite: Upper-division standing, twelve semester hours of upper-division coursework in education, or consent of the education adviser; and admission to the professional development sequence of courses and a University grade point average of at least 2.50.

### **EDC 371P. Social Entrepreneurship.**

Introduction to social entrepreneurship and responsibility. Apply entrepreneurship skills and project management skills through individual or group assignments focusing on business development. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **EDC 371R. Reading Difficulties.**

Reading theory, assessment, materials, and instruction with emphasis on struggling readers; field experiences in reading tutoring. Three lecture hours a week for one semester with additional field hours to be arranged. Prerequisite: Upper-division standing, twelve semester hours of upper-division coursework in education, or consent of the education adviser; and admission to the professional development sequence of courses and a University grade point average of at least 2.50.

### **EDC 371S, 671S, 971S. Praxis for Student Teaching.**

Restricted to students in the UT Urban Teachers program. Explore the development of pedagogical practices that adheres to the principals of democratic education. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

**Topic 1: Secondary English.** Offered on the letter-grade basis only.

**Topic 4: Secondary Social Studies.** Offered on the letter-grade basis only.

### **EDC 373. African Americans in Sports.**

Same as African and African Diaspora Studies 352E. Theoretical and practical complexities in issues surrounding African Americans in sports, including the relationship between athletics and higher education. Focuses on racial stereotyping, identity theory, and how practical knowledge of these theories can aid in understanding the current state of athletics. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352E, 374D (Topic 12), Curriculum and Instruction 373.

### **EDC 377. Conference Course in Curriculum and Instruction.**

Independent studies in instructional methodology and curriculum. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## **Graduate Courses**

### **EDC 380F. Sociocultural Foundations.**

Problems and issues in the study of education from a sociocultural perspective. Examines research in different fields, including history, sociology, and anthropology of education; innovative education reform in the field of multicultural education; and issues of racial, class, and gender inequality. Includes a critical assessment of the American public school system, with an emphasis on social justice. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to a Doctor of Education or a Doctor of Philosophy degree program.

### **EDC 380G. Anthropology of Education.**

Same as Anthropology 388K (Topic 2: Anthropology of Education). A study of social life in contemporary American schools from an anthropological perspective. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and twelve semester hours of upper-division coursework in education or consent of instructor.

### **EDC 380R. Educational Research and Design.**

An introduction to the methodology of social science research, with a focus on the field of education. Examines the fundamental assumptions, principles, and procedures of research; the meaning of knowledge and

the ways in which knowledge may be acquired and communicated to others; preparation and utilization of effective questions; principles of data collection and data analysis; drawing conclusions from data; and evaluation of current research. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to a Master of Arts or a Master of Education degree program.

### **EDC 380T. Writing: Process and Pedagogy.**

Studies research, theory, pedagogy, and curricula in writing for school and extracurricular settings and investigates personal writing processes, habits, and strategies. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **EDC 380W. Teaching Composition.**

Topics in the methodologies for the teaching of writing in American elementary, intermediate, and secondary classrooms. Topics may include writing assessment, connections between school and other settings, reading-writing connections, writing development, writing to think and learn, writing for a range of purposes and in a range of genres, and classroom structures for the teaching of writing. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **EDC 381F. Introduction to Teaching and Teacher Education.**

Examines research on teaching, research in teacher education, and modes of inquiry. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to a Doctor of Education or a Doctor of Philosophy degree program.

### **EDC 381J. Curriculum Organization.**

Designed for master's degree students with majors outside curriculum and instruction and for doctoral students needing to update preparation. An overview of theories, principles, and issues in curriculum construction for modern education. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **EDC 381M. Designs for Instruction.**

Examination of the instructional design process at one of the following levels: elementary school, secondary school, higher education, all-level. Emphasis on promising practices and current efforts toward improvement. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twelve semester hours of upper-division coursework in education, and teaching experience.

### **EDC 381R. Introduction to Systems of Human Inquiry.**

Designed to provide students with the knowledge and competence in social science research methods required for careers in teaching or human services. Explores competing definitions of research; the idea of a research paradigm; characteristics of various forms of inquiry, including quantitative and qualitative research; and research methods in relation to issues of ethics and rigor. Three lecture hours a week for one semester. Curriculum and Instruction 381R and 385G (Topic: Introduction to Systems of Human Inquiry) may not both be counted. Prerequisite: Graduate standing and admission to a Doctor of Education or a Doctor of Philosophy degree program.

### **EDC 382E. Teaching Elementary School Subjects.**

Examination of the discipline of the subject-field selected, coupled with intensive study of research findings, publications of learned societies, and advanced experimentation with the improvement of instruction. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twelve semester hours of upper-division coursework in education, an undergraduate

course in the subject-field selected (if appropriate), and teaching experience or consent of the graduate adviser.

**Topic 1: Reading.** Additional prerequisite: Curriculum and Instruction 370E (Topic 19: Reading/Language Arts) or the equivalent.

**Topic 2: Language Arts.**

**Topic 3: Science.**

**Topic 4: Social Studies.** Explore the history and theory of early childhood and elementary social studies, including the numerous debates over what constitutes "social studies", how social studies fits within early schooling curricula, and what the ultimate goal of social studies ought to be. Use foundational texts as well as current research in the social studies to examine the field and to consider how these debates impact school curriculum and pedagogy.

**Topic 5: Mathematics.**

**Topic 6: Foreign Language.** Additional prerequisite: Twelve semester hours of upper-division coursework in foreign language or consent of instructor.

**Topic 7: The Humanities.** An examination of personal values and such areas in the humanities as philosophy, music, art, drama, dance, and literature to provide richer educational experiences.

**Topic 8: English as a Second Language.** Additional prerequisite: Consent of instructor.

**Topic 9: Early Childhood Education.**

**Topic 10: Bilingual Education.** Additional prerequisite: Knowledge of Spanish.

### **EDC 382R. Fundamentals of Statistics.**

Designed for students majoring in the social sciences. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to a Doctor of Education or a Doctor of Philosophy degree program.

### **EDC 382S. Teaching Secondary School Subjects.**

Examination of the discipline of the subject-field selected, coupled with intensive study of research findings, publications of learned societies, and advanced experimentation with the improvement of instruction. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twelve semester hours of upper-division education, twelve semester hours of upper-division coursework in the subject-field of the topic or consent of instructor, and teaching experience or consent of the graduate adviser.

**Topic 1: Reading.**

**Topic 2: English.**

**Topic 3: Science.**

**Topic 4: Mathematics.**

**Topic 5: Social Studies.**

**Topic 6: Foreign Language.**

**Topic 7: English as a Second Language.**

**Topic 8: Instructional Technology.**

### **EDC 382T. Problems of College Teaching.**

Methods and procedures for teaching in specific fields selected by participants; major emphasis on successful classroom practices. Three lecture hours a week for one semester. Prerequisite: Graduate standing and an interest in teaching at the college level.

### **EDC 383C. Bibliography in Teaching and Curriculum.**

Survey of the scholarly literature in teaching and curriculum, with emphasis on bibliographic sources and techniques. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **EDC 383F. Curriculum Theory.**

An introduction to the central issues in curriculum theory. Includes historical and contemporary approaches to the philosophy and analysis

of curriculum, and curriculum theory and practice. Emphasis on the issues of power, knowledge, and exclusion. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to a Doctor of Education or a Doctor of Philosophy degree program.

### **EDC 383T. Instructional Theory.**

Identification and analysis of the major types of contemporary instructional theory. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **EDC 385G. Seminar: Program Development and Research.**

Advanced investigations of selected topics and problems in curriculum theory, program design, and research design at one of the following levels: elementary school, secondary school, higher education, all-level. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Global Comparative Early Childhood.** An examination of international and indigenous perspectives on early childhood, as well as the types of fieldwork and comparative inquiry that international research requires using work from early childhood scholars within anthropology, child development, psychology, sociology, and early childhood education. Students will prepare a research proposal for a comparative and/or international project with or about young children.

**Topic 2: Parents and Education.** An exploration of the relationship between families and schooling in the United States through racial, class-based, linguistic, cultural, and global perspectives, using multiple theoretical frameworks to both understand and challenge current approaches towards parental involvement in school.

**Topic 4: Second Language Acquisition.**

**Topic 5: The Second Language Learner.** Additional prerequisite: Curriculum and Instruction 385G (Topic 4) or consent of instructor.

**Topic 6: Linguistics and Language Teaching.** Same as Linguistics 387. Designed primarily for participants in international education exchange programs. Application of the findings of linguistics to the teaching of languages. Three lecture hours a week for one semester. Additional prerequisite: Graduate standing and consent of instructor.

**Topic 7: Language and Politics in Language Planning.** Same as Middle Eastern Studies 381 (Topic 30). Additional prerequisite: Consent of instructor.

**Topic 11: Action Technologies.**

**Topic 17: Culture, Gender, and Race in Organizations.**

**Topic 19: Managing Human Resource Development.**

**Topic 21: Training and Development.**

**Topic 24: Qualitative Research: Mixed-Method Investigation.**

Additional prerequisite: Completion of one qualitative research methods course.

**Topic 25: Life History Research.**

**Topic 27: Qualitative Research: Naturalistic Inquiry.**

**Topic 28: Multimedia Authoring.**

**Topic 29: Interactive Multimedia Design and Production.** Engaging in the design and production process through work with a client on an interactive, web-based application through new media technology tools. Emphasis on industry standard technology: graphics, video, audio, animation, and web development.

**Topic 30: Advanced Qualitative Research: Discourse Analysis.**

Additional prerequisite: Completion of one qualitative research methods course; completion of a graduate course in linguistics, sociolinguistics, or psycholinguistics; and admission to the doctoral program.

**Topic 31: Inquiry in Play.** An examination of play as a meaningful aspect of curriculum and child development; philosophical, psychological, and educational perspectives on play; and the grounding of educational play research in broader fields of inquiry.

**Topic 32: Advanced Science and Mathematics Education.**

**Topic 33: Computer-Supported Collaborative Learning.** Explores current research, theories, and strategies of computer-supported collaborative learning. Includes web-based activities focused on collaborative inquiry and writing, and approaches to project-based and foreign language learning.

**Topic 34: Language, Culture, and Identity.**

**Topic 35: Constructivism and Instructional Design.** Examines the philosophical, rhetorical, practical, and evaluative bases for constructivist approaches to instructional design. Students visit one constructivist classroom at the kindergarten through grade twelve level, and one at the college level.

**Topic 36: Content and Instruction of Reform Algebra.**

**Topic 37: Critical Issues in Bilingual and Bicultural Education.**

**Topic 40: Current Issues in Teaching Social Studies.**

**Topic 41: Curriculum Development in School Systems.**

**Topic 42: Curriculum History in Science, Technology, Engineering, and Mathematics Education.** The historical development of science, technology, engineering, and mathematics curricula in the United States from the mid-nineteenth century to the present. Discusses politics, equity, the development of technology, and theories of learning; and examines current curricular trends. Additional prerequisite: Curriculum and Instruction 385G (Topic 59: Knowing and Learning in Science, Technology, Engineering, and Mathematics Education).

**Topic 43: Curriculum in Science and Mathematics Education.**

**Topic 44: Curriculum Theories for Prekindergarten and Kindergarten.**

**Topic 45: Designs and Strategies for New Media.** Explores human-computer interaction (HCI), emphasizing designs and strategies for new media through various evaluations and hands-on activities. Examining the use of new media from the perspectives of information design, interaction design, and interface design; and using industry standard new media tools to illustrate understanding.

**Topic 47: Educational Communication Networks: Theory and Practice.**

**Topic 48: Educational Communication: Diffusion of Innovation.**

**Topic 49: Teaching and Learning with the Internet.**

**Topic 51: Feminist Participatory Action Research.** An overview of feminist social-action theory and research. Studies social action within the local community setting and with community projects.

**Topic 52: Foundations of Instructional Technology.**

**Topic 53: Curriculum and High-Stakes Testing.** Explores the provisions of state and federal legislation regarding high-stakes testing, including the implications for culturally and linguistically diverse student populations, the motivations for use, and the impact upon curricula, teaching, and student academic performance.

**Topic 55: Historical Perspectives on Curriculum.**

**Topic 56: Service Learning as an Instructional Strategy.**

**Topic 57: Learning Technology Planning and Management.** Current theories, research, and strategies related to the planning and management of learning technology projects. Exploration of funding proposals, strategic planning, and the use of planning tools such as surveys, inventory forms, project management aids, and decision-support systems.

**Topic 58: Multicultural Education in Austin.** Explores local educational and community resources for teaching from a multicultural and global perspective. Curriculum and Instruction 385G (Topic 58) and 385G (Topic: International Austin: Multicultural Classrooms) may not both be counted.

**Topic 59: Knowing and Learning in Science, Technology, Engineering, and Mathematics Education.** Explores various theories related to science, technology, engineering, and mathematics epistemology. Includes memory and the structure of knowledge, problem solving and reasoning, and the foundations of learning.

**Topic 60: Language Acquisition in Multicultural Special Education.**

**Topic 61: International Perspectives on Literacy Development.**

Curriculum and Instruction 385G (Topic 61) and 385G (Topic: Literacy Development: International Perspectives) may not both be counted.

**Topic 62: Education in Contemporary Black America.** Examines the historical and contemporary philosophies, practices, and pedagogies for Black education. Includes culturally responsive pedagogy, African-centered pedagogy and curriculum, multicultural curriculum and critical race theory.

**Topic 63: Identity, Agency, and Education.** Considers the cultural production of identity and identity politics and agency within a cultural, political, racial, gender, and activist framework in relation to education.

**Topic 64: Cultural Theory in Education.** Investigation of theories of popular culture, cultural difference, and cultural politics, and their applications in educational research and practice. Focuses on the relation between culture and power, with attention to issues of identity as well as social structure.

**Topic 65: Critical Pedagogy.** Introduction to critical pedagogy, focusing on theoretical foundations and methodologies of teaching and curriculum. Explores approaches to education oriented toward the development of critical consciousness, empowerment, and social action.

**Topic 67: Cultural Knowledge of Teachers and Teaching.** Examines how scholars have utilized cultural theory and cultural knowledge to situate and respond to: the identity, role and responsibility of "being" a teacher; the pedagogic functioning of teaching; and teacher preparation. Particular emphasis is placed on how these factors concern the education of historically marginalized student population.

**Topic 68: Women and Education: Research, Theory, and Practice.**

Explores the roles and experiences associated with women and girls in the broad field of education. Subjects related to women across a diverse social terrain are targeted including: historical scholarship, research, theoretical frameworks and policy issues.

**Topic 69: Chicana Feminist Theorists.** Explores current historical and theoretical writings of Chicana women feminist theorists. Themes include patriarchy, domination/resistance politics, epistemology, contestation, social reproduction, identity and difference and how these connect to schooling practices, policies, and politics.

**Topic 70: Chicana Participatory Action Research.** Investigates the history and philosophy of participatory action research, including that done by and for Chicanas. A research project benefiting Chicanas and other young, Latina females in a public educational setting will be required.

**Topic 71: Exploration in the Education of the Mexican American Child.** Provides a historical and contemporary overview of Mexican American children's schooling experiences that consider tracking, bilingual education, school finance, higher education access, and standardized testing.

**Topic 72: Race and Ethnic Relations in Schools.** Investigates the role of race and ethnicity as key organizing principles of society. Themes include individual and institutional racism, reproduction theory, cultural and structural assimilation, critical race theory, epistemology, anti-racist and culturally relevant pedagogy.

**Topic 73: Seminar in Advanced Educational Policy.** Investigates policy from a critical policy analysis perspective. Considers the importance of context, discourses, players, and policy articulations that influence policy development primarily in education and areas such as immigration and the economy.

**Topic 74: History of American Reading Instruction.** Focuses on shifts in reading pedagogy in relation to changing societal conditions in the United States from colonial times through the 1980s. Engages with instructional materials and investigate practices through readings and course lectures. Considers historical research methods including oral history.

**Topic 75: Reading and Writing in the Elementary School.** Offers an overview of methods, materials, and assessments used in the reading and writing instruction at the elementary level. Focuses primarily on classroom and school level processes with additional consideration of the instruction for special needs learners.

**Topic 76: Literacy and Culture.** Examines the relationship between culture and literacy from a variety of theoretical perspectives including New Literacy Studies, identity and agency, sociocritical literacy and critical race theory with a particular emphasis on discourse and social change.

**Topic 77: Classroom Discourse and Teacher Research.** Designed as a collaborative, critical examination of teacher/action research, particularly in relation to the exploration of classroom discourse. Focuses on the rationale, issues, and implications of the teacher research movement within education and on the research strategies and techniques that can be used by teachers in conducting research in their own classroom settings.

**Topic 78: The Teaching of Literacy.** Develops a stance of inquiry into teaching from a social practices framework. Emphasis will be on formulating thoughtful and theoretical questions to enhance the quality of interactions with children in classrooms; making ideologies that operate within the school literacy communities explicit; and looking through informed and critical lenses at each aspect of literacy instruction.

**Topic 79: Sociolinguistics in Research and Teaching.** Focuses on the sociocultural investigation of language, particularly as it pertains to educational settings. Traces the historical emergence of the related fields of sociolinguistics and linguistic anthropology, exploring how each of these scholarly traditions approaches the study of language, identifying key points of overlap and tension between the two fields, and discussing recent examples of inter-disciplinary scholarship. Issues to be addressed include linguistic variation, language and identity, bilingualism and multilingualism, language ideologies, and classroom discourse.

**Topic 80: Orality, Literacy, and Technology.** Explores the relationships among speech, writing, and technology across human history, in contemporary cultures, in individual lives, and in processes of education. Situates discussions of "new literacies" in the context of the history of literacy.

**Topic 81: Research on Adolescent Literacy In and Out of School.** Considers ways in which the literacy practices of youth in out-of-school settings and the literacy work of schools might productively inform each other, and examines the purposes, processes, and outcomes of this literacy work.

**Topic 82: Major Theorists in Early Childhood.** Studies a historical range of theorists who have tried to explain childhood and early learning in the fields of anthropology, psychology, philosophy, education, and child development.

**Topic 83: Research on Teacher Education in Physical Education.** Discusses philosophical orientations such as progressivism, post-modernism, humanism, and social reconstruction. Of particular value to those in the doctoral program in physical education teacher education.

**Topic 84: Contemporary Problems in Science, Technology, Engineering, and Mathematics Education.** Identifies and explores contemporary problems in science and mathematics education through collaboration with a practitioner in the field.

**Topic 85: Current Issues in Physical Education.** Explores and critically analyzes current issues, coalitions, and legislation related to physical education and develops the understanding and skills necessary to impact the future directions.

**Topic 86: Critical Perspectives in Early Childhood Education.** Critically analyzes scholars of early childhood education research, practice, and curricula. Questions assumptions about early childhood education; beliefs, theories, and ideas about working with young children, their

families, and the communities in which they live and work. Curriculum and Instruction 185G, 385G (Topic 38) and Curriculum and Instruction 185G, 385G (Topic 86) may not both be counted.

**Topic 87: Technology, Teacher Learning, and School Change.** Examines the complexity of the change process, especially in relation to the introduction of digital technologies in the PK-12 school context.

**Topic 88: Research on Early Childhood Education.** An introduction to research practices in the field of early childhood education. Classic studies and research reviews in various facets of early childhood education will be reviewed. Subjects include: child development, early childhood program models and evaluation, curriculum (including concept development and play), parent involvement, and teacher education in early education.

**Topic 89: Social Construction of Thinking in Childhood.** An intensive exploration of social constructivism, particularly Vygotskian theory and research. Classroom interactions, teaching and learning, parent and family contributions to education, cultural influences, and other contextually applicable aspects of education will be explored.

**Topic 90: Social Contexts of Early Childhood Education.** With a sociological lens, an examination of the constructs of the child and childhood through a range of social, political, educational, and economic contexts.

**Topic 91: Early Childhood Education Programs.** An examination of specific approaches to early childhood education including as the Montessori approach; programs such as Head Start; and critical analysis of how these various models of early childhood education define their role within the education of the young child as well as define the role of the child, teacher, and family. Philosophical, theoretical, historical, and empirical approaches to the field will be investigated.

**Topic 92: Theories of Curriculum for Pre-kindergarten and Kindergarten.** An exploration of the central issues and theoretical orientations of curriculum theory and practice in early childhood and elementary public school programs in the United States.

**Topic 93: Evaluation in Language Education.** Explores the policy and classroom implications of language assessment and evaluation practices, including review and critique of the assessment of English language proficiency for language minority students, standardized language assessment tools, and informal classroom-based methods for assessing language.

**Topic 94: Immigration Theory in Education.** An investigation of sociological, psychological, and anthropological perspectives of immigration theory and immigration post-1965 as they apply to educational research and immigrant youth in United States schools.

**Topic 95: Language Policy in Education.** Explores the implications of the perception of language as alternately a right, a resource, and a problem. Emphasis is on the development of linguistic support movements (bilingual, ESL, AAVE/Ebonics, etc.) as well as implicit and explicit language policies in the United States and in other countries.

**Topic 96: Biliteracy and New Literacy Studies.** Focuses on the theoretical foundations of biliteracy theories and new literacy studies.

**Topic 97: Biliteracy and Culture.** Includes theories and research topics relevant to teaching and learning literacy in two languages, Spanish and English. Discussion of the ways in which sociocultural, linguistic, and academic factors influence biliteracy development.

**Topic 98: Social, Cultural, and Political Contexts of Language Learning.** An analysis of oral and written language learning from interdisciplinary perspectives and within a variety of contexts, both within and outside of school settings. Particular attention is paid to issues of pedagogy, "non-standard" dialects of English, second-language learning, and multiliteracies.

**Topic 99: Curriculum in Physical Education.** An examination of current research regarding physical education curriculum paradigms, reform initiatives, and physical activity interventions as related to curriculum.

### **EDC 385H. Cultural Transmissions in America.**

Analysis of contemporary social, political, and economic trends in national and international life from the standpoint of educational implications. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twelve semester hours of upper-division coursework in social science, and twelve semester hours of upper-division coursework in education.

### **EDC 385K. General Foundations of Education.**

Designed for curriculum and instruction doctoral students preparing for qualifying examinations and other master's or doctoral degree students without previous work in foundations of education. General survey of basic concepts, topics, and policy issues in the foundations of education. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **EDC 385R. Introduction to Quantitative Research.**

Designed to help students develop skills in a variety of approaches and methodologies used in research design that requires quantitative methods. Focuses on multivariate methods; and includes research questions, purposes, methodologies, instruments, measures, participant selection, data collection and data analysis methods, results, and conclusions. Three lecture hours a week for one semester. Prerequisite: Graduate standing; admission to a Doctor of Education or a Doctor of Philosophy degree program; and Curriculum and Instruction 382R, Educational Psychology 371, or an equivalent introductory statistics course and consent of the graduate adviser.

### **EDC 386R. Introduction to Qualitative Research.**

An introduction to the theoretical and methodological issues central to conducting qualitative research studies. Designed to help students develop practical research skills, and includes opportunities to evaluate current research, analyze data, observe, and interview. Three lecture hours a week for one semester. Curriculum and Instruction 385G (Topic: Qualitative Research in Educational Settings) and 386R may not both be counted. Prerequisite: Graduate standing and admission to a Doctor of Education or a Doctor of Philosophy degree program.

### **EDC 387R. Topics in Advanced Quantitative Research.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, Curriculum and Instruction 385R, and admission to a Doctor of Education or Doctor of Philosophy degree program.

**Topic 1: Advanced Quantitative Analysis.**

**Topic 2: Statistical Inference.**

**Topic 3: Survey Research Methods.** Curriculum and Instruction 385G (Topic: Survey Research Methods) and 387R (Topic 3) may not both be counted.

### **EDC 388R. Topics in Advanced Qualitative Research.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, Curriculum and Instruction 386R, and admission to a Doctor of Education or a Doctor of Philosophy degree program.

**Topic 1: Narrative and Oral Tradition.** Curriculum and Instruction 385G (Topic: Narrative and Oral Tradition) and 388R (Topic 1) may not both be counted.

**Topic 2: Discourse Analysis.** Additional prerequisite: Completion of one qualitative research methods course, and completion of a graduate course in linguistics, sociolinguistics, or psycholinguistics.

**Topic 3: Educational Ethnography.** Only one of the following may be counted: Curriculum and Instruction 385H (Topic: Ethnographic

and Qualitative Research Methods), 388R (Topic: Educational Ethnography), 388R (Topic 3).

**Topic 4: Postmodern Analytical Methods.** Curriculum and Instruction 385G (Topic: Advanced Qualitative Research: Postmodern Analytical Methods) and 388R (Topic 4) may not both be counted.

**Topic 5: Life History.**

**Topic 6: Naturalistic Inquiry.**

**Topic 7: Feminist Participatory Action Research.**

**Topic 9: Case Study.** An in-depth investigation into the methodology of case study research, including approaches and theories, development of goals, and current issues and challenges. Curriculum and Instruction 385G (Topic: Case Study Research) and 388R (Topic 9) may not both be counted.

### **EDC 389R. Topics in Advanced Mixed Methods Research.**

Instruction in design-based research, a methodology aimed to improve educational practices through interventions involving iterative analysis, design, and development, and implementation of interventions based on collaboration among researchers and practitioners in real-world settings. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; admission to a Doctor of Education or Doctor of Philosophy degree program; and Curriculum and Instruction 385R and 386R, or consent of instructor.

### **EDC 390T. Institute in Instruction.**

Various topics designed to help students analyze and improve instruction at one of the following levels: elementary school, secondary school, higher education, all-level. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Reading.**

**Topic 3: Science.**

**Topic 4: Social Studies.**

**Topic 5: Mathematics.**

**Topic 6: Foreign and Second Language Materials Development.**

Additional prerequisite: Consent of instructor.

**Topic 7: Advanced Instructional Systems Design.** Advanced topics, theoretical frameworks, and strategies for the design of instructional systems. Students work in teams to design and develop an instructional product for an authentic client such as a state agency, school system, university, corporation, or museum that meets specified criteria. Additional prerequisite: Curriculum and Instruction 390T (Topic 21: Instructional Systems Design).

**Topic 8: English as a Second Language.** Additional prerequisite: Consent of instructor.

**Topic 9: Bilingual Education.**

**Topic 10: Analysis of Teaching in Physical Education.** An examination of the history and current practices involved in high and low inference methods of analyzing teaching. Commonly used evaluation systems such as the Professional Development and Appraisal System (PDAS) and National Board Certification will be reviewed.

**Topic 11: Archaeology Education for Social Studies.**

**Topic 12: Childhood and Adolescent Literature.**

**Topic 13: Design for Technology Innovation.**

**Topic 15: Elementary School Curriculum.**

**Topic 16: English as a Second Language: Oral.**

**Topic 17: English as a Second Language: Literacy.**

**Topic 18: English as a Second Language: Reading.**

**Topic 19: Equity in Science, Technology, Engineering, and Mathematics Education.**

**Topic 20: Systemic Reform and Science and Mathematics Education.** Curriculum and Instruction 385G (Topic: Systemic Reform and Science and Mathematics Education) and 390T (Topic 20) may not both be counted.

**Topic 21: Instructional Systems Design.** Provides an overview of the theoretical frameworks, current trends, and common concerns associated with the design and development of instructional materials. Investigates the theoretical, practical, and critical perspectives on instructional design as applicable in a variety of educational contexts (K-12 education, higher education, and corporate training) and modes (face-to-face, online, and hybrid environments). Includes readings, discussions, real-world design, practical applications, and interactions with instructional design experts.

**Topic 22: Improving Social Studies Education.**

**Topic 23: Instructional Telecommunications.**

**Topic 24: Introduction to Curriculum Studies.** Designed to familiarize doctoral students with the theoretical, philosophical, sociocultural, and practical areas within the field of curriculum study.

**Topic 25: Literature for Young Adults.**

**Topic 26: Multicultural Curriculum and Teaching.**

**Topic 27: The Planning and Management of Instructional Programs.**

**Topic 28: Practice in Reading Difficulties.** A practicum in assessing and teaching elementary school students who struggle with reading. Class meetings take place at a local elementary school and include one-on-one tutoring with coaching and modeling by the instructor, small group support sessions, and seminars on issues related to reading difficulties.

**Topic 30: Research on Teaching.**

**Topic 31: Research on Teaching in Science, Technology, Engineering, and Mathematics Education.**

**Topic 32: Seminar in Elementary School Curriculum.**

**Topic 33: Studies in Curriculum and Instruction.**

**Topic 36: Humanities and Literacy in Social Education.**

**Topic 37: Systemic Reform in Science, Technology, Engineering, and Mathematics Education.** Covers the major themes of systemic reform in science, technology, engineering, and mathematics (STEM) education and explores, develops, and investigates models of reform initiatives. Additional prerequisite: Curriculum and Instruction 385G (Topic 59: Knowing and Learning in STEM Education); and credit or registration for Curriculum and Instruction 385G (Topic 42: Curriculum History in STEM Education).

**Topic 38: Advanced Topics in Science, Technology, Engineering, and Mathematics Education.** Focuses on a critical issue in science, technology, engineering, and mathematics (STEM) education aligned with STEM education faculty research interests, culminating in a product (paper, presentation, proposal) that can be submitted to professional or funding agencies. Additional prerequisite: Curriculum and Instruction 385G (Topic 59: Knowing and Learning in STEM Education) and 385G (Topic 42: Curriculum History and Development in STEM Education).

**Topic 39: Instructional Systems Design.** An overview of the theoretical frameworks, current trends, and common concerns associated with the design and development of instructional materials. The theoretical, practical, and critical perspectives on instructional design as it is applied in a variety of educational contexts will be reviewed for the purpose of designing effective and engaging learning experiences.

**Topic 40: Advanced Instructional Systems Design.** Includes advanced topics, theoretical frameworks, and strategies for the design of instructional systems. Students work in teams to design and develop an instructional product for an authentic client such as a state agency, school system, university, corporation, or museum that meets specified criteria for quality.

**Topic 41: Measurement and Assessment of Physical Activity.** An introduction to theoretical bases for evaluating and investigating physical education teaching effectiveness. Emphasis is placed on current technologies and issues of assessment for physical education instruction, basic statistics concepts, and current educational evaluation trends. Designed primarily for physical education teachers.

**Topic 42: Research on Teaching in Physical Education.** An examination of past and current research on teaching, teachers, and curriculum in physical education. Empirical and conceptual scholarship related to the physical education teaching process, the preparation of teachers and their experiences, and the development of curriculum in physical education settings will be explored.

**Topic 43: Foundations of Learning Technology.** Introduces students to the field of learning technology by learning its history, as well as the learning theories, paradigms, thought leaders, trends, and issues that have shaped the field. Primarily web-based and involves both individual and collaborative work. Online class meetings will be held every two to three weeks to facilitate real-time discussions on the readings, as well as opportunities for interaction with visiting experts in the field. The equivalent of three lecture hours a week for one semester. Curriculum and Instruction 390T (Topic: Foundations of Learning Technology) and 390T (Topic 43) may not both be counted.

### **EDC 391C. Curriculum and Pedagogy.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **EDC 391G. Gender and Race in Education.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **EDC 391P. Educational Policy.**

May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **EDC 391T. Educational Theory.**

May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **EDC 391V. Educational Evaluation.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **EDC 392L. Philosophical Foundations of Education.**

Designed for master's degree students without previous graduate work in philosophy or philosophy of education and for doctoral students who need to update preparation. A systematic overview of the field of philosophy of education. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and either twelve semester hours of coursework in upper-division education or consent of instructor.

### **EDC 395C. Cultural Studies in Education.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **EDC 395H. Social Studies Education.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **EDC 395K. Early Childhood Education.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **EDC 395L. Language and Literacy Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Exploring Literacy Teaching Practices Using Action Research.** In the tradition of action research methods, content is framed around

theoretical work in pragmatism, activity theory, and the "practice turn" in teaching and teacher education through a combination of seminar and practicum elements. The major project is an action research study in a classroom/school. Faculty observe in classrooms where action research projects are underway.

**Topic 2: Literacy and Social Change.** Explore theories of using literacy as a tool for increasing social justice in the world. Understand and articulate theoretical and experience-based definitions of social justice and translate that knowledge into curriculum and instructional approaches that can educate students about how to use literacy to improve their worlds. Curriculum and Instruction 385G (Topic: Literacy and Social Change) and 395L (Topic 2) may not both be counted.

**Topic 3: Research in English and Language Arts.** Explore research in English Language Arts with an emphasis on composition. Understand processes and methods of analyzing scholarly works and research studies in subject matter.

**Topic 4: Research in Reading.** Explore research in the field of literacy with a focus on reading. Examine commonly-employed methodologies and current research published in peer-reviewed literacy journals and construct a literature review in an area of interest. Curriculum and Instruction 390T (Topic: Research in Reading) and 395L (Topic 4) may not both be counted.

**Topic 5: Critical Perspectives on Literacy Challenges.** Examine historical and current views, policies, and school contexts related to literacy challenges from a sociocultural and contextual perspective. Curriculum and Instruction 395L (Topic 5) and 390T (Topic 29) may not both be counted.

#### **EDC 395M. Bilingual Bicultural Education.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **EDC 395P. Physical Education and Teacher Education.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **EDC 395T. Learning Technologies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Introduction to Instructional Design.** Explore an overview of the theoretical frameworks, current trends, and common concerns associated with the design and development of instructional materials. Investigate the theoretical, practical, and critical perspectives on instructional design as it is applied in a variety of educational contexts (i.e. K-12, higher education, and corporate training) and modes (i.e. face-to-face, hybrid, and online). Three lecture hours a week for one semester. Only one of the following may be counted: Curriculum and Instruction 384P (Topic 21), 390T (Topic 21), 390T (Topic 39), 395T (Topic 1).

#### **EDC 196, 396. Doctoral Seminar.**

Research projects and creative investigations in a selected subject-field and developments in instructional practices and in research findings and methodologies. Offered at the following levels: elementary school, secondary school, higher education, all-level. The equivalent of one or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and admission to candidacy for the doctoral degree or consent of instructor.

**Topic 1: Foreign Language.**

**Topic 2: Social Studies Education.**

**Topic 3: Learning Technologies.**

**Topic 4: Cultural Studies in Education.**

**Topic 5: Early Childhood Education.**

**Topic 6: Bilingual/Bicultural Education.**

**Topic 7: Language and Literacy Studies.**

**Topic 8: Science, Technology, Engineering, and Mathematics Education.**

**Topic 9: Physical Education Teacher Education.** Discuss and debate timely research subjects in the disciplines of physical education, public health, culture, and educational reform.

#### **EDC 196T, 296T, 396T, 696T, 996T. Directed Research in Curriculum and Instruction.**

Investigation of assigned problems under the direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; production of acceptably written reports of a technical character. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

#### **EDC 197V, 397V. Independent Study.**

May involve syntheses of literature, field investigations on selected subjects, or other individual research subjects. For each semester hour of credit earned, one lecture hour a week for one semester. May be taken for credit five times. May be repeated for credit. Prerequisite: Graduate standing and twelve semester hours of graduate education coursework.

#### **EDC 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in curriculum and instruction and consent of the supervising professor and the graduate adviser; for 698B, Curriculum and Instruction 698A.

#### **EDC 198P, 398P, 698P. Graduate Internship.**

Supervised practice in a professional position. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be taken five times for credit. May be repeated for credit. Prerequisite: Graduate standing and admission to approved internship program.

#### **EDC 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in curriculum and instruction and consent of the graduate adviser.

#### **EDC 398T. Supervised Teaching in Curriculum and Instruction.**

Supervised college teaching experience. Three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant or an assistant instructor.

#### **EDC 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

### **Professional Courses**

## **Czech Courses**

### **Czech: CZ**

#### **Lower-Division Courses**

##### **CZ 601C. Intensive Czech I.**

Not open to native or heritage speakers of Czech. Emphasis on developing oral proficiency in Czech using intensive methods of

instruction. Six lecture hours a week for one semester. Only one of the following may be counted: Czech 601C, 406, 506. Only one of the following may be counted: Czech 601C, 407, 507.

#### **CZ 406, 506. First-Year Czech I.**

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Czech 601C, 406, 506.

#### **CZ 407, 507. First-Year Czech II.**

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Czech 601C, 407, 507. Prerequisite: Czech 406 or 506.

#### **CZ 611C. Intensive Czech II.**

Not open to native or heritage speakers of Czech. Continuing intensive development of proficiency in Czech, with a focus on speaking and the reading of authentic texts. Six lecture hours a week for one semester. Czech 611C and 312K, 412K may not both be counted. Czech 611C and 312L, 412L may not both be counted. Prerequisite: Czech 601C or 507.

#### **CZ 312K, 412K. Second-Year Czech I.**

Listening, speaking, reading, and writing at the second-year level. For each semester hour of credit earned, one lecture hour a week for one semester. Czech 611C and 312K, 412K may not both be counted. Prerequisite: Czech 601C or 507.

#### **CZ 312L, 412L. Second-Year Czech II.**

Listening, speaking, reading, and writing at the advanced, second-year level. For each semester hour of credit earned, one lecture hour a week for one semester. Czech 611C and 312L, 412L may not both be counted. Prerequisite: Czech 312K or 412K.

#### **CZ 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Czech.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **CZ 325. Third-Year Czech I.**

Oral expression, reading, and composition. Three lecture hours a week for one semester. Prerequisite: Czech 611C or 312L or 412L.

#### **CZ 326. Third-Year Czech II.**

Continuation of Czech 325: Oral expression, reading, and composition. Three lecture hours a week for one semester. Prerequisite: Czech 325.

#### **CZ 328. Topics in Advanced Czech.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Czech 326.

#### **CZ 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Czech.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University

credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **CZ 379. Conference Course in Czech Language or Literature.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in Czech, or upper-division standing and consent of instructor.

#### **CZ 679H. Honors Tutorial Course.**

Supervised individual research on a literary honors paper of some length. Conference course for two semesters. Must be taken for special honors in addition to the major requirement. Prerequisite: For 679HA, upper-division standing, a University grade point average of at least 3.00, and a grade point average in Czech of at least 3.50; for 679HB, Czech 679HA.

### **Graduate Courses**

#### **CZ 392. Studies in Czech Language.**

Topics may include Czech linguistics, pedagogy, and comparative language study. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

#### **CZ 395. Conference Course.**

Survey of Czech literature, language, culture, linguistics, history, and politics. Individual instruction. May be repeated for credit. Prerequisite: Graduate standing.

### **Professional Courses**

## **Danish Courses**

### **Danish: DAN**

#### **Lower-Division Courses**

##### **DAN 604. Accelerated First-Year Danish.**

Six lecture hours a week for one semester, with optional laboratory available.

##### **DAN 612. Accelerated Second-Year Danish.**

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Danish 604.

##### **DAN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Danish.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **DAN 327. Advanced Danish I.**

Three lecture hours a week for one semester. Prerequisite: Danish 612 with a grade of at least C.

#### **DAN 328. Advanced Danish II.**

Three lecture hours a week for one semester. Prerequisite: Danish 327 with a grade of at least C.

**DAN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S.**  
**Topics in Danish.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**DAN 130D. Danish across Disciplines.**

Read and discuss Danish language materials related to the subject matter of another designated course. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Three semester hours of upper-division coursework in Danish with a grade of at least C.

**DAN 379. Conference Course in Danish Language or Literature.**

Supervised individual study of selected problems in Danish language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

**Graduate Courses**

**Professional Courses**

**Data Science Courses**

**Data Science: DSC**

**Lower-Division Courses**

**Upper-Division Courses**

**Graduate Courses**

**DSC 381. Probability and Simulation-Based Inference for Data Science.**

Introduction to inference, through the simulation process. Explore probability, exponential families, conditional probabilities and Bayes theorem, inference and Maximum Likelihood estimation, confidence intervals, and hypothesis testing (emphasis on simulation). The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**DSC 382. Foundations of Regression and Predictive Modeling.**

Introduction to the basics of regression-based modeling. Explore simple and multiple regression, interpretation of models and coefficients, prediction and estimates, regularization processes, and generalized linear models. The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Data Science 381.

**DSC 383. Advanced Predictive Models for Complex Data.**

Explore advanced techniques used in practice for regression-based models. Examine time series and longitudinal data, repeated and mixed models, spatially correlated data, and Random Forest models. The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Data Science 382 and 388G.

**DSC 384. Design Principles and Causal Inference.**

Explore the field of "big data" and the rigors of determining applicable design structures from that data. Examine classic design structures, non-typical data structures and novel design processes, and causal inference, and explore data-based decision making. The equivalent of three lecture

hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Data Science 381.

**DSC 385. Data Exploration, Visualization, and Foundations of Unsupervised Learning.**

Examine visualization techniques used in practice to discover insights about data. Explore data quality and relevance, data ethics and providence, clustering, dimension reduction, and reproducibility. The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Data Science 388G.

**DSC 387. Topics in Statistics for Data Sciences.**

Explore topics in data science with a general overview of statistics theory and application. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**DSC 388G. Algorithms: Techniques and Theory.**

Explore algorithm design and analysis including algorithmic paradigms, maximum flow, randomized algorithms, data structures, NP-completeness and approximation algorithms. The equivalent of three lecture hours a week for one semester. Data Science 388G and Computer Science 388G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**DSC 391L. Principles of Machine Learning.**

Examine computing systems that automatically improve their performance with experience, including various approaches to inductive classification such as version space, decision tree, rule-based, neural network, Bayesian, and instance-based methods; as well as computational learning theory, explanation-based learning, and knowledge refinement. The equivalent of three lecture hours a week for one semester. Data Science 391L and Computer Science 391L may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Data Science 382.

**DSC 395T. Topics in Computer Science for Data Sciences.**

Explore topics in data science with a general overview of computer science application. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Data Science 381.

**Professional Courses**

**Decision Science Courses**

**Decision Science: D S**

**Lower-Division Courses**

**D S 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S.**  
**Topics in Decision Science.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## Upper-Division Courses

**D S 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S.**

### Topics in Decision Science.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **D S 235. Introduction to Decision Science.**

Restricted to students in the McCombs School of Business. Examine modeling of business problems using methods from decision analysis, simulation and optimization. Two lecture hours a week for one semester. Decision Science 235 and 235H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Statistics 301 or 301H; Mathematics 408Q or credit or registration for Mathematics 408D, 408L, or 408S.

### **D S 235H. Introduction to Decision Science: Honors.**

Restricted to students in the McCombs School of Business Honors Program. Examine modeling of business problems using methods from decision analysis, simulation and optimization. Two lecture hours a week for one semester. Decision Science 235 and 235H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Statistics 301 or 301H, Mathematics 408Q or credit or registration for Mathematics 408D, 408L, or 408S.

### **D S 372. Topics in Decision Science.**

Restricted to students in a business major. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 6: Optimization Method in Finance.** Same as Business Analytics 372 (Topic 6). Explore quantitative methods and techniques in optimization and simulation, and their use in financial decision making. Discuss theory and application in portfolio selection, options and other derivative pricing, index tracking, risk measures, volatility estimating. Examine linear, quadratic, nonlinear, and integer programming; dynamic programming; robust optimization; Monte Carlo methods and variance reduction techniques. Emphasis will be placed on problem solving with advanced computational programming languages. Only one of the following may be counted: Finance 372 (Topic: Optimization Method in Finance), 372 (Topic 6), Statistics 372 (Topic 6), Business Analytics 372 (Topic 6), Decision Science 372 (Topic 6).

**Topic 7: Computational Finance.** A systematic introduction to the analysis and implementation of numerical methods used in finance. Explore numerical techniques in derivative pricing and optimal asset allocation, such as Monte Carlo and quasi-Monte Carlo simulation, methods for solving partial differential equations, and dynamic programming. Statistics 372 (Topic 7) and Decision Science 372 (Topic 7) may not both be counted.

## Graduate Courses

### Professional Courses

## Design Courses

### Design: DES

#### Lower-Division Courses

##### **DES 301. Introduction to Design Thinking.**

Same as Integrated Design 301D. Introduces design thinking and design methods, with a focus on design process. Three lecture hours a week for one semester. Design 301 and Integrated Design 301D may not both be counted. Offered on the letter-grade basis only.

##### **DES 102. Technologies in Design Practice.**

Introduces a variety of technology and software used by design professionals. The equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary.

##### **DES 102C. Introduction to 2D Design.**

Explore the fundamental principles and methods of 2D design making, including an introduction to software. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only.

##### **DES 102D. Introduction to 3D Design.**

Introduction to theories, principles, methods, techniques, tools, and software for 3D design. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only.

##### **DES 102E. Introduction to Interaction Design.**

Introduction to theories, methods, and techniques for designing time-based and interactive experiences, including video, motion graphics, and web and mobile applications. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only.

##### **DES 303. Introduction to Graphic Design.**

Lecture/seminar/studio course. Introduces the fundamental principles, conventions, and techniques of graphic design. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

##### **DES 304. Design Studio I.**

Restricted to design majors. Explore the vocabulary, principles and techniques of design across disciplines through project work in a studio setting. Six lecture hours a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only.

##### **DES 305. Design Studio II.**

Restricted to design majors. Build upon vocabulary, principles and techniques of design across disciplines through project work in a studio setting. Six lecture hours a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Design 304.

##### **DES 306. Design Studio III.**

Restricted to design majors. Refine and apply vocabulary, principles and techniques of design across disciplines through project work in a studio setting. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Design 304 and 305.

##### **DES 307. Design and Culture.**

Explore the broad social, economic, technological, and political forces that shape design, and how design influences the human experience in

today's world. Examine the critical discourse surrounding the creation, production, consumption, and interpretation of design. Three lecture hours and one laboratory hour a week for one semester. Offered on the letter-grade basis only.

### **DES 308. Introduction to Design Theory and Criticism.**

Lecture/seminar course. Introduces design theory and criticism, examining how people's beliefs and values inform the way they make, understand, and evaluate works of design. The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **DES 309. Introduction to Design.**

Studio course. Introduction to the design process, including research, ideation, prototyping, critique, and iteration. Projects also introduce the vocabulary, principles, strategies, techniques, and conventions of drawing and rendering used by design professionals. Six studio hours a week for one semester. Design 309 and 310 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for one of the following: Design 301, 304, 305, 306, Integrated Design 301D, Studio Art 301C, or 302C.

### **DES 110C. Introduction to Design Research.**

Examine the role of research in the design process, and explore a variety of research methods. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only.

### **DES 110T, 310T. Topics in Innovative Design.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **DES 111C. Portfolio Critique.**

Develop a portfolio of work to present for feedback. The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the letter-grade basis only.

### **DES 311J. Design Technologies I.**

Studio course. Projects introduce the vocabulary, principles, strategies, techniques, and conventions of color, composition, rendering, photography, and typography used by design professionals. Six laboratory hours a week for one semester. Offered on the letter-grade basis only.

### **DES 311K. Design Technologies II.**

Studio course. Projects introduce techniques and theories for designing time-based and interactive experiences, including video, motion graphics, and web/mobile applications. Six laboratory hours a week for one semester. Offered on the letter-grade basis only.

### **DES 312. Visual Syntax in Communication.**

Introduction to fundamental typographic elements: visual composition and form-making, sequence and narrative, and contrast and hierarchy. Final project is a portfolio to be submitted for sophomore performance review. Six laboratory hours a week for one semester. Only one of the following may be counted: Design 312, 312G, 325. Offered on the letter-grade basis only.

### **DES 312G. Typography in Communication.**

Studio course. Introduction to fundamental typographic elements: visual composition and form-making; sequence and narrative; and contrast and hierarchy. Six laboratory hours a week for one semester. Only one of the following may be counted: Design 312, 312G, 325. Offered on the letter-grade basis only.

### **DES 113, 313. Introduction to Design History.**

Introduction to the history of design, with a focus on key themes and ideas. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional studio hours to be arranged. Design 313 and 336 may not both be counted. Offered on the letter-grade basis only.

### **DES 314. Introduction to Industrial Design.**

Introduction to theories, principles, methods, and techniques for industrial design in a studio format. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Design 304 or 309.

### **DES 115C. Sketching.**

Introduction to elements, techniques, processes, and tools for sketching in design practice. Explore sketching as a way to convey ideas. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only.

### **DES 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Design.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad office. Credit is recorded as assigned by the Design Assistant Chair of the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **DES 320. Design Theories and Methods.**

Lecture/seminar/studio course. Introduces cultural and aesthetic theories pertinent to design, as well as research methods for generating and prototyping ideas. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Design 304 and 305; or Design 309.

### **DES 321. Images in Communication.**

Studio course. Explores the selection and creation of images appropriate to specific communication goals and contexts, such as promotional images, infographics, logos, instructions, and/or narratives. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 301C, 302C, and 303C; or Design 304 and 305; or Design 308; or Design 309; or Art History 304.

### **DES 121C. Portfolio Critique.**

Develop a portfolio of work to present for feedback. The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **DES 322. Design and the Social Environment.**

Studio course. Involves researching a contemporary social issue; define an area of opportunity; and design graphics, objects, services, and/or systems that respond ethically to the issue. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Design 309. Design 321, 325, and 326 are recommended.

### **DES 323. Color in Theory and Practice.**

Explore contemporary color notation systems and color management techniques. Survey economic, health and safety, environmental, cultural, legal, political, and other ethical considerations pertinent to using color.

Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **DES 324. Design Research and Methods.**

Lecture/studio course. Lectures and projects introduce problem-framing and problem-solving techniques and a variety of design research, ideation, prototyping, and iterative methods. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: One of the following: Design 301, 304, 305, 309, or Integrated Design 301D.

### **DES 325. Typography I.**

Studio course. Projects introduce the fundamental principles, conventions, and techniques of typography. Six laboratory hours a week for one semester. Only one of the following may be counted: Design 312, 312G, 325. Offered on the letter-grade basis only. Prerequisite: Studio Art 301C, 302C, and 303C; or Design 304 and 305; or Design 308; or Design 309; or Art History 304.

### **DES 326. Objects and Spaces.**

Studio course. Projects introduce rendering and prototyping techniques used for solving problems in three-dimensional media such as product design, packaging design, environmental graphics, and/or architectural/landscape design. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 301C, 302C, and 303C; or Design 304 and 305; or Design 308; or Design 309; or Art History 304.

### **DES 327. Prototyping Physical Space.**

Restricted to design majors. Studio-based exploration of the iterative development of low-resolution immersive environments. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following with a grade of at least C: Design 321, 325, and 326; and Design 304 and 305, or Design 309.

### **DES 328. Print and Packaging.**

Restricted to design majors. Studio-based exploration of the print environment, and build technical skills and process management skills. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following with a grade of at least C: Design 321, 325, and 326; and Design 304 and 305, or Design 309.

### **DES 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Design.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad office. Credit is recorded as assigned by the Design Assistant Chair of the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **DES 130T, 330T. Topics in Innovative Design.**

Exploration of innovative topics in design. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **DES 131. Portfolio and Performance Review.**

Develop and review a portfolio of work, guided by feedback from the instructor, group critiques, and reviews with visiting critics. The equivalent of one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Design 304 and 305.

### **DES 334. Introduction to Interaction Design.**

Studio course. Projects introduce theories, methods, and techniques for designing time-based and interactive experiences, including video, motion graphics, and web/mobile applications. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 301C, 302C, and 303C; or Design 304 and 305; or Design 309; or Design 308; or Art History 304.

### **DES 334C. Interaction Design I.**

Explore theories, methods, and techniques for designing time-based and interactive experiences, including video, motion graphics, and web and mobile applications. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following with a grade of at least C: Design 309, 321, 325.

### **DES 335. Typography II.**

Studio course. Students use typographic principles to design complex print and on-screen publications. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following with a grade of at least C: Design 321, 325, and 326; and Design 304 and 305, or Design 309.

### **DES 336. History of Design.**

Lecture/seminar course. Surveys the history of graphic and/or industrial design from c.1450 to the present, with an emphasis on the last 150 years. Three lecture hours a week for one semester. Design 313 and 336 may not both be counted. Offered on the letter-grade basis only.

### **DES 337. Topics in Design History.**

Lectures and discussions focusing on specialized or advanced topics in the history of design. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

**Topic 1: History of Graphic Design.** Surveys the history of graphic design from 1450 to the present, with an emphasis on the last 150 years. Offered on the letter-grade basis only.

**Topic 2: History of Industrial Design.** Surveys the history of industrial design from 1750 to the present, with an emphasis on the last 150 years. Offered on the letter-grade basis only.

**Topic 3: Research Methods in Design History.** Introduces a variety of research methods in design history. Offered on the letter-grade basis only.

### **DES 138, 338. Topics in Design.**

Examine specialized or advanced topics in design. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **DES 340. Design Systems.**

Development of flexible, integrated design systems such as identities, wayfinding, and service design. Six laboratory hours a week for one semester. Design 340 and 340G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326, 334, and 335, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 340C. Identity Systems.**

Restricted to design majors. Examine the relationship between business and graphic design to simplify, unify, and amplify a brand's identity in a studio format. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and the

following with a grade of at least C: Design 321, 325, and 326; and Design 304 and 305, or Design 309.

### **DES 340D. Brand Storytelling.**

Restricted to design majors. Examine the relationships between research, strategy, identity, human-centered design, and storytelling to articulate and communicate a brand's purpose in a studio format. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Design 334 and 335.

### **DES 340G. Branding and Visual Identity Systems.**

Studio course. Explores the purposes and constraints of branding and visual identity design, and creative systems that can be applied consistently across media and materials. Six laboratory hours a week for one semester. Design 340 and 340G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326, 334, and 335, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 341. Advanced Issues in Visual Syntax.**

Exploration of advanced issues in typography. Six laboratory hours a week for one semester. Design 341 and 341G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326, 334, and 335, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 341G. Typography III.**

Studio course. Advanced projects in typography; introduction to type design, material explorations, environmental type design, and expressive distortion. Six laboratory hours a week for one semester. Design 341 and 341G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Design 335 with a grade of at least C.

### **DES 342. Design and Persuasion.**

Development and presentation of coherent informational and persuasive visual statements. Six laboratory hours a week for one semester. Design 342 and 342G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326, 334, and 335, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 342G. Information and Persuasion.**

Studio course. Explores ways to communicate information accurately, clearly, and persuasively through informational graphics and data visualization. Six laboratory hours a week for one semester. Design 342 and 342G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326, 334, and 335, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 343. Design Research and Methods II.**

Studio course. Students use insights gleaned from comparison research, user testing, and/or product reviews to refine existing prototypes or products. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326, 334, and 335, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 344. Objects and Spaces II.**

Studio course. Advanced practice in problem-solving, rendering, and prototyping in three-dimensional media, such as product design, packaging design, environmental graphics, and architectural/landscape design. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least

C in each or registration for Design 326, 334, and 335, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 345. Design Writing.**

Lecture/seminar course. Students propose and carry out original research and writing projects with the aim of submitting their writing for publication. Three lecture hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326, 334, and 335, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 346. Project Studio.**

Studio course. Professional experience solving real-world problems, including commissioned projects, student-initiated projects, and/or pro bono projects. Six laboratory hours a week for one semester. May be taken three times for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

### **DES 347. Publication Studio.**

Studio course. Advanced publishing projects in print and/or digital media. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: For design majors, credit or registration for Design 309; for others, consent of instructor.

### **DES 348. Information Visualization.**

Studio course. Students devise ways to communicate information accurately, clearly, and memorably. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326, 334, and 335 and credit or registration for Design 336 or 337 (Topic 1).

### **DES 349. Interaction Design II.**

Lecture/studio course. Students design visually pleasing, responsive, user-centered web and mobile interfaces. One lecture and three studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Design 334 with a grade of at least C.

### **DES 350. Special Topics in Design.**

Studio course. Projects focusing on contemporary design practice, featuring approaches and subfields not represented elsewhere in the curriculum. Six laboratory hours a week for one semester. May be repeated twice for credit, but not with the same instructor in the same semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **DES 351. Design Perspectives.**

Studio course. Workshops and projects led by industry professionals, visiting lecturers, and/or University faculty and graduate students, featuring design approaches, subfields, practices, and media. Two lecture and two laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326, 334, and 335, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 352. Service and Systems Design.**

Studio course. Students design effective user-centered systems and services. One lecture and three studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326, 334, and 335, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 353. Advanced Topics in Interaction Design.**

Studio Course. Students undertake advanced projects in interaction design. Topics may include user research, user interface design, service design, usability, and accessibility. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Design 334 or 349, with a grade of at least C; or consent of instructor.

### **DES 354. Design Issues.**

Lecture/seminar course. Students engage with contemporary issues in design through reading, discussion, and writing. Three lecture hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326, 334, and 335, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 355. Interaction Design III.**

Studio course. Advanced projects in visually pleasing, responsive, user-centered web and mobile interfaces. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Design 334 and 349 with a grade of at least C in each.

### **DES 356. Topics in Graphic Design.**

Restricted to design majors. Topics in graphic design. Six studio hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and the following with a grade of at least C: Design 321, 325, and 326; and Design 304 and 305, or Design 309.

**Topic 1: Spatial Graphic Design.** Restricted to design majors. Examine the relationship between the built environment and typography, image, symbol, material, and visual storytelling in the context of artistic, social, and cultural movements in a studio format. Six studio hours a week for one semester. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing.

### **DES 357C. Interaction Design III: Experiential and Spaces.**

Restricted to design majors. Examine communication through physical material and space. Explore topics such as experiential design, branded environments, and exhibition design in a studio format. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and Design 334.

### **DES 357D. Interaction Design IV: Objects and Media.**

Restricted to design majors. Studio-based exploration of the practical, theoretical, and speculative ability for products, objects, digital space, and media to communicate in context of the Internet of Things. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Design 334 and 349.

### **DES 358C. Industrial Design I.**

Same as Engineering Studies 358C. Restricted to design majors. Explore methods and techniques for industrial design. Six studio hours a week for one semester. Design 358C and Engineering Studies 358C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Design 314 or Engineering Studies 319.

### **DES 358D. Industrial Design II.**

Restricted to design majors. Build upon methods and techniques for industrial design. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Design 314 and 358C.

### **DES 358E. Industrial Design III.**

Restricted to design majors. Refine and apply methods and techniques for industrial design. Six studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Design 314, 358C and 358D.

### **DES 359. Professional Practices in Design.**

Lecture/studio course. Lectures introduce professional practices in design, intellectual property issues, contracts, pricing, accounting, tax preparation, business plans, promotion, etc. One lecture and three studio hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C in each or registration for Design 326 and 334, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 260, 360. Design Internship.**

Restricted to design majors. Introduces students to ethical standards and professional practices in design; allows completion of an approved professional internship. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with internship hours to be arranged. Design 360 and 371 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C or registration for Design 326 and 334, and credit or registration for Design 336 or 337 (Topic 1).

### **DES 160I, 260I, 360I. Internship in Design.**

Participate in a professional design internship in a field of interest. One lecture hour a week for one semester and, for each semester hour of credit earned, a minimum of 100 internship hours for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Design 304 and 305 or 309; and consent of instructor.

### **DES 370. Senior Project in Design.**

Restricted to design majors. Studio course. Students define their own research problem and propose appropriate design solutions, guided by feedback from desk critiques with the instructor, group critiques, and reviews with a visiting critic. Six laboratory hours a week for one semester. Design 370 and 374 may not both be counted. Offered on the letter-grade basis only. Prerequisite: At least 90 hours of coursework and consent of design assistant chair.

### **DES 371. Design Practicum.**

Restricted to design majors. Lecture/internship course. Resume and portfolio preparation; discussion of professional ethics and responsibilities; professional internship. For each semester hour or credit earned, the equivalent of one lecture hour a week for one semester. Design 360 and 371 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Consent of instructor and consent of design assistant chair.

### **DES 374. Capstone Design Project.**

Restricted to design majors. Studio course. Students define their own research problem and propose appropriate design solutions, guided by feedback from desk critiques with the instructor, group critiques, and reviews with a visiting critic. Six laboratory hours a week for one semester. Design 370 and 374 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Senior standing, and credit with a grade of at least C or registration for Design 309 or 304 and 305, 321, 325, 326, 334, and 336 or 337 (Topic 1).

### **DES 375. Capstone Design Exhibition.**

Restricted to design majors. Studio course. Students collaboratively curate, design, and install a senior BFA exhibition, and publish collateral materials that publicly showcase their capstone projects. Six laboratory

hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Design 370 or 374 with a grade of at least C.

### **DES 376. Independent Study: Design.**

Student-defined projects completed under faculty supervision. The equivalent of six laboratory hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Consent of instructor and consent of design assistant chair.

## **Graduate Courses**

### **DES 380. Core Course in Design.**

Introduction to design process, research, and methodologies. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **DES 381. Core Laboratory 1.**

Practice laboratory for a variety of design methodologies. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **DES 182, 382, 482, 582, 682. Critique Studio.**

Context and structured dialogue regarding areas of, and the student's own direction in, graduate research. For each semester hour of credit earned, the equivalent of one lecture hour a week, with additional studio hours to be arranged. May be repeated for credit. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

### **DES 383. Graduate Projects.**

Independent study. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **DES 184, 384, 684. Design Documentation and Storytelling.**

Covers portfolio creation and other tools related to documenting and communicating design work. For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of the graduate adviser, and consent of instructor.

### **DES 384C. Design Criticism.**

Thinking, writing and talking about design. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; consent of the graduate adviser; consent of instructor.

### **DES 184D, 284D, 384D. Design Perspectives.**

Explore design approaches, subfields, practices, and media through workshops, projects or lectures led by industry professionals, visiting instructors, and/or University faculty and graduate students. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of the graduate adviser, and consent of instructor.

### **DES 184E, 384E. The Art of Critique.**

Explore methods, frameworks, and practice in giving and receiving feedback in a design studio setting. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of the graduate adviser, and consent of instructor.

### **DES 184F, 384F. Materials Exploration.**

Consider materials in design applications. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

### **DES 184G, 384G. User Research.**

Explore generative and evaluative methods for design research, research synthesis techniques, and the design of research field studies for design applications. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

### **DES 384H. Design Theory and Method.**

Examine theory and methods in design. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; consent of the graduate adviser; consent of instructor.

### **DES 384J. Design in Context.**

Explore the social, political, historical, legal and economic contexts of design. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; consent of the graduate adviser; consent of instructor.

### **DES 184K. Introduction to Campus Resources for Designers.**

Introduction to design-related resources on campus including the Library, materials lab, fabrication lab, and publication studio. One lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

### **DES 385C, 685C. Studio I.**

Explore principles and techniques of design across disciplines through project work in a studio setting. For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

### **DES 385D, 685D. Studio II.**

Build upon principles and techniques of design across disciplines through project work in a studio setting. For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser; Design 385C or 685C.

### **DES 385E, 685E. Studio III.**

Refine and apply advanced principles and techniques of design across disciplines through project work in a studio setting. For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser; Design 385D or 685D.

### **DES 385F, 685F. Studio IV.**

Culminate previous knowledge of principles and techniques of design across disciplines through project work in a studio setting. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser; Design 385E or 685E.

**DES 385G, 685G. Foundation Studio I.**

Introduction to vocabulary, principles, strategies, techniques and conventions foundational to design in a studio format. For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

**DES 385H, 685H. Foundation Studio II.**

Build upon vocabulary, principles, strategies, techniques and conventions foundational to design in a studio format. For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser; Design 385G or DES 685G.

**DES 385J, 685J. Foundation Studio III.**

Refine vocabulary, principles, strategies, techniques and conventions foundational to design in a studio format. For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser; Design 385H or DES 685H.

**DES 385K, 685K. Topics in Visual Design Studio.**

Studio-based exploration of techniques and concepts specific to visual design. For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

**DES 185L, 385L, 685L. Topics in Interaction Design Studio.**

Studio-based exploration of techniques and concepts specific to interaction design. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional studio hours to be arranged. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

**DES 185M, 385M, 685M. Topics in Industrial Design Studio.**

Studio-based examination of techniques and concepts specific to industrial design. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional studio hours to be arranged. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

**DES 385N, 685N. Topics in Service Design Studio.**

Studio-based exploration of techniques and concepts specific to service design. For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

**DES 385T, 685T. Topics in Design Studio.**

Develop studio projects focusing on specialized or advanced topics or methods. For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

**DES 385V, 685V. Topics in Visiting Designer Studio.**

Projects developed by visiting designer on technique and concepts related to their practice in a studio format. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional studio hours to be arranged. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

**DES 386. Design History.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, consent of the graduate adviser, and consent of instructor.

**DES 387, 487, 587, 687. Graduate Internship in Design.**

Professional design internship in a field of the student's interest. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Hours to be arranged with supervisor. May be repeated for credit. Prerequisite: Graduate standing, consent of the graduate adviser, and consent of the instructor.

**DES 387H, 487H, 587H, 687H. Internship in Healthcare Design.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, consent of the graduate adviser, and consent of instructor.

**DES 388. Introduction to Design Thinking.**

Restricted to graduate students in design. A preliminary foundation in the emerging practice of human-centered design, the methodology driving design thinking as a way of achieving innovation across sectors. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

**DES 388C. Topics in Design Seminar.**

Examine specialized or advanced topics in design. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

**DES 388D. Topics in Service Design Seminar.**

Examine specialized or advanced topics in service design. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

**DES 388E. Topics in Industrial Design Seminar.**

Examine specialized or advanced topics in industrial design. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

**DES 388F. Topics in Interaction Design Seminar.**

Examine specialized or advanced topics in interaction design. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

**DES 388G. Topics in Visual Design Seminar.**

Examine specialized or advanced topics in visual design. Three lecture hours a week for one semester. May be repeated for credit when the

topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

### **DES 190, 290, 390, 490, 590, 690. Topics in Advanced Design Skills.**

For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of the graduate adviser.

### **DES 391. Core Laboratory 2.**

Designed to provide students with the opportunity to test and expand their design research through writing and various methods of dissemination. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **DES 392. Professional Communication of Research.**

Seminar addressing strategies for communicating design research processes and results to a variety of audiences through vehicles such as exhibitions, scholarly reports, and video recordings. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **DES 393. Issues in Design Theory and Research.**

Investigates current discourse within design studies. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **DES 194, 294, 394, 494, 594, 694. Topics in Advanced Design.**

Examine design practices in all areas, and their relationship to research. For each semester hour of credit earned, one lecture hour a week for one semester, with additional studio hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

### **DES 395. Fieldwork in Design.**

Students conduct fieldwork as part of a collaborative research team and/or under the direction of a project supervisor. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **DES 396. Business of Design.**

Explore the integration of design into business and business into design. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **DES 397. Service Design.**

Apply design thinking to service-based sectors such as hospitality, healthcare, food service and others. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **DES 397C. Design Pedagogy and Instruction.**

Covers theory and research related to the pedagogy of design. Explores creation of design learning experiences. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

### **DES 197P, 297P, 397P, 497P, 597P, 697P. Teaching Practicum.**

Applied teaching in design subjects. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, consent of instructor, and consent of the graduate adviser.

### **DES 398P. Capstone Project.**

Utilize design methodologies and techniques on an applied project. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **DES 398R. Master's Report.**

The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in design and consent of instructor or the graduate adviser.

### **DES 398S. Master's Exhibition.**

The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in design and consent of instructor or the graduate adviser.

### **DES 398T. Supervised Teaching in Design.**

Training and teaching under the close supervision of the course instructor for one semester; group meetings with the instructor, individual consultations, and reports throughout the teaching period. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Graduate standing in design and graduate standing and appointment as a teaching assistant.

## **Professional Courses**

# **Developmental Studies Courses**

## **Developmental Studies: DEV**

### **Lower-Division Courses**

#### **DEV 000M. Basic Mathematics and Algebra Skills.**

Developmental mathematics instruction paired with a core math course. Emphasis is on mathematical concepts that support success in the core math course. One and one half lecture hours a week for one semester. Offered on the satisfactory/unsatisfactory basis only. May not be counted toward any degree. Prerequisite: Concurrent enrollment in a core math course approved by the Texas Success Initiative office, and consent of the Texas Success Initiative coordinator.

#### **DEV 000R, 300R. Basic Reading Skills.**

Developmental reading and writing instruction paired with a credit reading intensive course. Emphasis is on strategies for improving reading comprehension across the disciplines, reading study skills, and elements of composition. For 000R, one and one half lecture hours a week for one semester. For 300R, three lecture hours a week for one semester. Offered on the satisfactory/unsatisfactory basis only. May not be counted toward any degree. Prerequisite: Concurrent enrollment in a reading intensive course approved by the Texas Success Initiative office, and consent of the Texas Success Initiative coordinator.

#### **DEV 000W, 300W. Basic Writing Skills.**

Developmental reading and writing instruction paired with a credit writing intensive course. Emphasis is on strategies for improving reading comprehension across the disciplines, reading study skills, and elements of composition. For 000W, one and one half lecture hours a week for one semester. For 300W, three lecture hours a week for one semester. Offered on the satisfactory/unsatisfactory basis only. May not be counted

toward any degree. Prerequisite: Concurrent enrollment in a writing intensive course approved by the Texas Success Initiative office, and consent of the Texas Success Initiative coordinator.

### **DEV 301M. Developmental Mathematics I.**

Developmental mathematics instruction paired with a core math course. Emphasis is on mathematical concepts that support success in the core math course. Three lecture hours a week for one semester. Offered on the satisfactory/unsatisfactory basis only. May not be counted toward any degree. Prerequisite: Concurrent enrollment in a core math course approved by the Texas Success Initiative office, and consent of the Texas Success Initiative coordinator.

### **DEV 302M. Developmental Mathematics II.**

Continuation of Developmental Studies 301M. Includes linear equations, systems of equations, integers, exponents and scientific notation, factoring polynomials, rational expressions and equations, radical expressions, and geometric problems. Three lecture hours a week for one semester. Offered on the satisfactory/unsatisfactory basis only. May not be counted toward any degree.

### **DEV 303M. Basic Mathematics and Algebra Skills Review.**

Three lecture hours a week for one semester. Offered on the satisfactory/unsatisfactory basis only. May not be counted toward any degree.

### **DEV 303S. Analytical Reading and Writing.**

Examination of fundamental concepts in analytical reading from different disciplinary perspectives, with an emphasis on sociocultural influences on comprehension and writing styles. Three lecture hours a week for one semester. May not be counted toward any degree. Prerequisite: Consent of the Texas Success Initiative coordinator.

## **Upper-Division Courses**

### **Graduate Courses**

### **Professional Courses**

## **Dutch Courses**

### **Dutch: DCH**

#### **Lower-Division Courses**

#### **DCH 604. Accelerated First-Year Dutch.**

Six lecture hours a week for one semester, with optional laboratory available.

#### **DCH 612. Accelerated Second-Year Dutch.**

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Dutch 604.

#### **DCH 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Dutch.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

#### **DCH 327. Advanced Dutch I.**

Three lecture hours a week for one semester. Prerequisite: Dutch 612 with a grade of at least C.

#### **DCH 328. Advanced Dutch II.**

Three lecture hours a week for one semester. Prerequisite: Dutch 327 with a grade of at least C.

#### **DCH 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Dutch.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **DCH 130D. Dutch across Disciplines.**

Read and discuss Dutch language materials related to the subject matter of another designated course. One lecture hour per week for one semester. May be repeated for credit. Prerequisite: Three semester hours of upper-division coursework in Dutch with a grade of at least C.

#### **DCH 375. Studies in Dutch Literature.**

Selected topics in Dutch and Flemish literature. Conducted in Dutch. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Dutch 612 or the equivalent, and consent of instructor.

#### **DCH 379. Conference Course in Dutch Language or Literature.**

Supervised individual study of selected problems in Dutch language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## **Graduate Courses**

## **Professional Courses**

## **Economics Courses**

### **Economics: ECO**

#### **Lower-Division Courses**

#### **ECO 301. Introduction to Economics.**

Introduction to the structure and functioning of the aggregate economy and specific markets, including the labor market, housing market, and financial markets. Basic concepts of market regulation and monetary and fiscal policy. Concepts used in the social and behavioral sciences for measuring and interpreting economic data. Three lecture hours a week for one semester. May not be counted toward a major in economics.

#### **ECO 304K (TCCN: ECON 2302). Introduction to Microeconomics.**

Analysis of the economic behavior of individual consumers, firms, and workers. Demand, supply, and market equilibrium. Impact of taxes, externalities, and market power on equilibrium. Three lecture hours a week for one semester, with additional hours to be arranged.

#### **ECO 304L (TCCN: ECON 2301). Introduction to Macroeconomics.**

Analysis of the economy as a whole. Measurement of output, the price level, and employment. Basic theories of the determination of Gross domestic product, investment and growth, and inflation. Introduction to fiscal policy and monetary policy. Three lecture hours a week for one semester, with additional hours to be arranged. Prerequisite: Economics 304K with a grade of at least C-.

### **ECO 305. Introductory Topics in Economics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **ECO 318Q. Supervised Research.**

Individual instruction. May be repeated once for credit when the research topics vary. Prerequisite: Economics 304K and 304L with a grade of at least C- in each.

### **ECO 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Economics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Economics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **ECO 420K. Microeconomic Theory.**

Economic theory of the behavior of individuals, households, firms, and markets. Roles of relative prices and information, with a focus on constrained optimization. Four lecture hours a week for one semester. Only one of the following may be counted: Finance 321K, Economics 420K, 421K. Prerequisite: Economics 304K and 304L with a grade of at least C- in each; Mathematics 408C and 408D, or 408K and 408L, or 408N and 408S, or 408K and 408S, or 408C and 408L, or 408C and 408S, or 408N and 408L with a grade of at least C- in each; and Economics 329 or Biomedical Engineering 335 or Chemical Engineering 253K or Electrical Engineering 351K or Mathematics 358K or 378K or Statistics and Data Sciences 378 or Mechanical Engineering 335 with a grade of at least C.

### **ECO 320L. Macroeconomic Theory.**

Theories of the determination of output, employment, and the price level. Basic models of growth. Design of monetary and fiscal policies, and the mechanisms by which they affect the economy. Three lecture hours a week for one semester. Required of students majoring in economics. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 321. Public Economics.**

Study of appropriate allocations of economic activity between government (federal, state, and local) and the private sector. The workings of social security, welfare, education, pollution control, deregulation, taxation; and proposals for reform. Three lecture hours a week for one semester. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 421K. Microeconomic Theory For Business.**

Restricted to business majors. May not count toward a major in economics. Microeconomic analysis and applications for business majors. Preferences, including behavioral factors. Consumer demand, industry supply, and market equilibrium. Decision-making under uncertainty. Information problems, moral hazard, and adverse selection. Game theory and behavioral game theory. Applications include insurance markets, financial markets, contracts, and strategic behavior in business settings. Four lecture hours a week for one semester. Only one of the following may be counted: Finance 321K, Economics 420K, 421K. Prerequisite: Economics 304K and 304L with a grade of at least C- in each; Mathematics 408C and 408D, or 408K and 408L, or 408N and 408S, or 408K and 408S, or 408C and 408L, or 408C and 408S, or 408N and 408L, with a grade of at least C- in each.

### **ECO 322. Money and Banking.**

Theories of financial intermediation and the role played by money. Financial policy and monetary policy in theory and practice. Three lecture hours a week for one semester. Economics 322 and Finance 354 may not both be counted. Prerequisite: The following with a grade of at least C-: Economics 420K or 421K, and Economics 320L.

### **ECO 323L. Political Economy.**

Economic issues in the political arena. Use of microeconomic tools to study issues associated with collective decision-making, including the role of government in a market economy, and the formulation and implementation of government policies. Three lecture hours a week for one semester. Economics 323L and 330T (Topic: Political Economy) may not both be counted. Prerequisite: One of the following with a grade of at least C-: Economics 301 or 304K.

### **ECO 324. Introduction to Labor Economics.**

Labor markets in modern economies. Role of institutions and policies in shaping labor market outcomes for individuals and businesses. Three lecture hours a week for one semester. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 325K. Health Economics.**

Explores medical care as a commodity, demand for health and medical services, economic behavior of medical care providers, and the functioning of medical insurance markets. Government regulation and provision of health care and health insurance. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 325K, 325L, 330T (Topic: Health Economics), 330T (Topic 1), 350K (Topic: Health Economics), 350K (Topic 9). Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 325L. Economics of Health.**

Explore the application of basic microeconomics to the study of health and issues arising in the provision of medical care. Examine the demand for and the supply of medical care. Discuss the roles of the private sector and government in the provision of medical insurance. Analyze the regulation of health care and health insurance. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 325K, 325L, 330T (Topic: Health Economics), 330T (Topic 1), 350K (Topic: Health Economics), and 350K (Topic 9). Prerequisite: Economics 304K with a grade of at least C-.

### **ECO 326L. Economics of Education.**

Applications of economic principles and empirical methods to education, including the concept of human capital, economic returns to education, the determinants and measurement of teacher impact, the roles of school inputs and factors outside of school, and the market for higher education. Methodology for evaluating education policy. Three lecture hours a week for one semester. Economics 326L and 350K (Topic: Economics of Education) may not both be counted. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 327. Comparative Economic Systems.**

Economic systems in theory and practice. Role of government and regulation. Three lecture hours a week for one semester. Prerequisite: Economics 304K and 304L with a grade of at least C- in each.

### **ECO 328. Industrial Organization.**

Organization of industries and markets; competition, monopoly, and oligopoly. Introduction to antitrust policy, regulatory policy, and other alternatives. Three lecture hours a week for one semester. Prerequisite: Economics 420K with a grade of at least C-.

### **ECO 329. Economic Statistics.**

Interpretation of economic data. Introduction to statistical models, estimation, and inference in economics. Three lecture hours a week for one semester. Prerequisite: Economics 304K and 304L with a grade of at least C- in each; and Mathematics 408C and 408D, or 408K and 408L, or 408N and 408S, or 408K and 408S, or 408C and 408L, or 408C and 408S, or 408N and 408L, with a grade of at least C- in each.

### **ECO 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Economics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Economics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **ECO 330T. Topics in Economics.**

Open to nonmajors. Topics cover aspects of economic theory, applications, and policy. Three lecture hours a week for one semester. Economics 330T and 350K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Economics 304K with a grade of at least C-; additional prerequisites may vary with the topic.

**Topic 2: Introduction to Law and Economics.** Only one of the following may be counted: Economics 330T (Topic 2), 349K (Topic: Law and Economics), 349K (Topic 1).

### **ECO 333K. Development Economics.**

Same as Urban Studies 321D. Introduction to theories of economic development. Economic analysis of leading issues. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 333K, Urban Studies 351 (Topic 4), 321D. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 333L. Development and Population.**

Microeconomics of economic development, population growth and the age structure of the population, and their impact on the environment. Three lecture hours per week for one semester. Economics 333L and 372M (Topic: Development and Population) may not both be counted. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 334K. Urban Economics.**

Same as Urban Studies 322E. Economic analysis of urban areas, emphasizing current problems, such as spatial concentration of poverty, lack of access to jobs and financial services, and transportation systems. Examines the role of policy in addressing these problems. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 334K, Urban Studies 322E, 351 (Topic 2). Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 334L. Regional Economics.**

Spatial aspects of economics, including concepts, theories, and policy applications. Three lecture hours a week for one semester. Economics 334L and Urban Studies 351 (Topic 3) may not both be counted. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 334M. Migration Economics and Policy.**

Immigration policy of the United States compared to that of other countries. Determinants of migration. Characteristics of migrants. Effects of migration on the country of origin and the receiving country. Unauthorized immigration to the United States. Three lecture hours a week for one semester. Economics 334M and 349K (Topic: Migration

Economics and Policy) may not both be counted. Prerequisite: The following with a grade of at least C-: Economics 420K or 421K, and 341K or 441K.

### **ECO 335K. Energy Economics.**

Economic analysis of the markets for resources that supply energy, including coal, oil, natural gas, and shale gas, and the market for electricity. Principles of valuation and optimal dynamic allocation of energy resources. Financial contracts and risk management in energy markets. Regulation of energy markets. Three lecture hours a week for one semester. Economics 335K and 350K (Topic: Energy Economics) may not both be counted. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 336M. Economics of Auctions.**

Explore auctions as a mechanism for allocating resources. Analyze bidders' strategic interactions using game theory. Investigate market rules designed to attain specific policy objectives. Utilize empirical methods to analyze auction data. Three lecture hours a week for one semester. Economics 336M and 350K (Topic: Economics of Auctions) may not both be counted. Prerequisite: Economics 420K with a grade of at least C-.

### **ECO 339K. International Trade and Investment.**

Theories explaining the location of production facilities and patterns in international trade. Implications of international trade for per capita income, growth, and inequality. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 339K, European Studies 348 (Topic 2), International Business 320F, 350, 350S. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 339L. International Finance.**

Exchange rates and foreign exchange markets; reasons for financial globalization; open-economy macroeconomics; exchange rate regimes (fixed and floating exchange rates, currency boards, and currency areas such as the euro zone); central bank accumulation of foreign exchange reserves; and sovereign debt crises and currency crashes. Reasons for different exchange rate arrangements and other policies are explored. Three lecture hours a week for one semester. Prerequisite: Economics 420K or 421K with a grade of at least C-, and 320L with a grade of at least C-.

### **ECO 341K, 441K. Introduction to Econometrics.**

Parameter estimation and inference in regression models. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Economics 420K with a grade of at least C- and one of the following with a grade of at least C-: Biomedical Engineering 335, Chemical Engineering 253K, Economics 329, Mathematics 378K, Mechanical Engineering 335, or Statistics and Data Sciences 378.

### **ECO 342L. Advanced Econometrics.**

Explore advanced methods of causal inference and prediction. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 342L, 348K (Topic 1) and 350K (Topic 4). Prerequisite: Economics 420K and 341K or 441K with a grade of at least C- in each.

### **ECO 342M. Applied Econometrics and Data Analysis.**

Explore advanced regression analysis, maximum likelihood, discrete choice models, nonparametric methods, causality, and regression discontinuity design. Evaluate the use of these techniques in applied research and apply them in a variety of data sets. Three lecture hours a week for one semester. Economics 342M and 348K (Topic: Applied

Econometrics/Data) may not both be counted. Prerequisite: Economics 341K or 441K, and 420K with a grade of at least C-.

### **ECO 348K. Advanced Topics in Econometrics.**

Topics in econometric modeling and estimation. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Economics 341K or 441K, and 420K with a grade of at least C- in each.

### **ECO 350K. Advanced Topics in Economics.**

Topics in economic theory, and the application of theory to empirical models. Three lecture hours a week for one semester. Economics 330T and 350K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Economics 420K with a grade of at least C-; additional prerequisites may vary with the topic.

**Topic 6: Advanced Microeconomic Theory.** Advanced theory of individual behavior and organizations. Subjects may include decision-making under uncertainty, insurance, optimal contracts, and institutions. Additional prerequisite: Economics 329 with a grade of at least C-.

### **ECO 350L. Advanced Macroeconomics.**

Investigate advanced macroeconomic theory. Examine dynamic general equilibrium models, real business cycle theory, and macroeconomic models with a financial intermediary sector, financial crises, and monetary and fiscal policy. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 350K (Topic: Advanced Macroeconomics), 350K (Topic 5), 350L. Prerequisite: Economics 420K and 320L with a grade of at least C-.

### **ECO 351K. Current Issues in Business Economics.**

Economic analysis of government regulation and policy and business responses. Three lecture hours a week for one semester. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 351M. Managerial Economics.**

Use of economic analysis and optimization as tools for improving managerial decision-making in business. Three lecture hours a week for one semester. Prerequisite: Economics 420K, and Economics 329 or Mathematics 362K, with a grade of at least C- in each.

### **ECO 351N. Economic Principles of Managerial Decisions.**

Use of economic concepts and models to make strategic business decisions (adverse selection, game theory, price discrimination, strategic commitment, barriers to entry, network effects). Economics of strategic responses to the legal environment (regulations, antitrust policies, intellectual property, fiduciary duty, liability). Three lecture hours a week for one semester. Only one of the following may be counted: Economics 330T (Topic: Economic Principles of Managerial Decisions), 350K (Topic: Economic Principles of Managerial Decisions), 351N, Finance 372 (Topic: Economic Principles of Managerial Decisions), 172 (Topic 10), 272 (Topic 10), 372 (Topic 10). Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 352K. Business Strategy.**

Economic analysis of business strategy, including introducing new products, vertically integrating, bundling goods, pricing, distribution, mergers, and product differentiation. Relevant aspects of antitrust law. Case studies of specific firms. Three lecture hours a week for one semester. Economics 350K (Topic: Business Strategy) and 352K may not both be counted. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 352R. Economics of Entrepreneurship.**

Explore the application of economics to the practice of starting or expanding a business. Examine evaluation of the market; strategic decisions, including pricing, advertising, location, and deterring competitors; raising capital; and employee compensation. Three lecture hours a week for one semester. Economics 349K (Topic: Economics of Entrepreneurship) and 352R may not both be counted. Prerequisite: Economics 341K or 441K, and 420K with a grade of at least C- in each.

### **ECO 353K. Antitrust Law and Economics.**

Economic analysis of antitrust law intended to deter firms from engaging in anti-competitive conduct that harms consumers, including mergers that impede competition, price-fixing, and anti-competitive practices by a dominant firm in an industry. Focus on various industries and select antitrust cases. Three lecture hours a week for one semester. Economics 350K (Topic: Antitrust Law and Economics) and Economics 353K may not both be counted. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **ECO 353M. Empirical Public Economics.**

Use of data to evaluate public policy issues. Issues considered include the effect of having health insurance on health outcomes; the relationship between earning power and the type of college attended; charter schools and educational outcomes; the effect of an increase in the minimum wage on employment; and the welfare effects of bank bailouts. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 353M, 361 (Topic: Empirical Public Economics) and 361 (Topic 1) Prerequisite: The following with at least a grade of C-: Economics 420K or 421K, and 341K or 441K.

### **ECO 354K. Introductory Game Theory.**

Introduction to the formal study of interdependent decision making. Applications of game theory include pricing and advertising strategies, labor-management bargaining, and tariff negotiations. Three lecture hours a week for one semester. Prerequisite: Economics 329 and 420K or 421K with a grade of at least C- in each.

### **ECO 355. Development Problems and Policies in Latin America.**

Same as Latin American Studies 355 (Topic 1). Analysis of the economies of Latin America. Issues may include the structure and functioning of cities, rural-urban migration, the sectoral composition of GDP and employment, and determinants of growth. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 355, Latin American Studies 355 (Topic 1), Urban Studies 351 (Topic 1). Prerequisite: Economics 304K and 304L with a grade of at least C- in each.

### **ECO 358Q. Supervised Research.**

Individual instruction. May be repeated once for credit when the research topics vary. May not be counted toward the twenty-five semester hours in economics required for the major in economics. Prerequisite: Economics 420K and 329 with a grade of at least C- in each.

### **ECO 359M. Environmental and Natural Resource Economics.**

Optimal use of exhaustible and renewable resources, including fuels, minerals, fisheries, forests, and water; resource scarcity and economic growth; valuation of nonmarketed environmental amenities; the economics of pollution control instruments, including taxes, permits, direct regulation, and negotiation; environmental quality and international trade; the economics of global climate change; pollution control policy in practice. Three lecture hours a week for one semester. Prerequisite: Economics 420K and 329 with a grade of at least C- in each.

**ECO 363C. Computational Economics.**

Three lecture hours a week for one semester. Prerequisite: Economics 420K and 320L with a grade of at least C- in each.

**ECO 367R. Monetary Economics.**

Theories explaining the role of money in the economy. Three lecture hours a week for one semester. Prerequisite: Economics 420K or 421K with a grade of at least C-, and Economics 320L with a grade of at least C-.

**ECO 368. Survey of the History of Economic Thought.**

Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**ECO 369F. Financial Economics.**

Economic analysis of the operation of financial markets, including arbitrage theory, asset pricing, and corporate finance. Three lecture hours a week for one semester. Prerequisite: Economics 420K and 329 with a grade of at least C- in each.

**ECO 370E. Economics of Gender, Race, and Ethnicity.**

Study large and persistent differences in economic outcomes across genders and between major racial and ethnic groups in the United States. Examine empirical evidence for, and gaps in, economic models explaining these differences. Three lecture hours a week for one semester. Economics 330T (Topic: Econ: Gender/Race/Ethnicity) and 370E may not both be counted. Prerequisite: Upper-division standing and Economics 304K with a grade of at least C-.

**ECO 370M. Behavioral Economics.**

Explaining how heuristics result in biases in individual decisions and anomalies in the market place. Applications to choice under uncertainty, intertemporal choice, choice in a strategic environment, and behavioral finance. Three lecture hours a week for one semester. Only one of the following can be counted: Economics 330T (Topic: Behavioral Economics), 350K (Topic: Behavioral Economics), 370M. Prerequisite: Economics 301 or 304K with a grade of at least C-.

**ECO 371M. Social Economics: Outside the Market.**

Explore concepts of social welfare, fairness, and social choice procedures. Discuss economic analysis of social interactions that take place outside of markets. Three lecture hours a week for one semester. Economics 330T (Topic: Socl Eco: Eco Outside the Mkt) and 371M may not both be counted. Prerequisite: Upper-division standing and Economics 304K with a grade of at least C-.

**ECO 376N. Personnel Economics.**

Use of microeconomic theory to analyze how firms make decisions involving human resources, including recruiting and hiring strategies, training and investment in worker skills, evaluating and motivating worker performance, and job design. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 376M (Topic: Personnel Economics), 376M (Topic 1), and 376N. Prerequisite: Economics 420K or 421K with a grade of at least C-.

**ECO 378H. Honors Tutorial Course I.**

Supervised individual reading, research, and writing of a substantial paper on a special topic in the field of economics. Conference course. Prerequisite: Upper-division standing, admission to the Economics Honors Program, and consent of the honors adviser.

**ECO 379C. Individual Conference Course.**

Supervised individual study of selected problems in economics. Conference course. May not be counted toward the twenty-four semester hours in economics required for the major in economics. May be

repeated for credit. Prerequisite: Upper-division standing and consent of instructor. Students should ordinarily have completed six semester hours of upper-division coursework in economics and coursework with supervising instructor.

**ECO 379D. Internship in Economics.**

Students conduct research while working in an appropriate government agency or private business. Ten hours of fieldwork a week for one semester. May be repeated once for credit when the internships vary. Offered on the pass/fail basis only. Prerequisite: Economics 420K with a grade of at least C-.

**ECO 379H. Honors Tutorial Course II.**

Supervised individual reading, research, and writing of a substantial paper on a special topic in the field of economics. Conference course. Prerequisite: Economics 378H.

**Graduate Courses****ECO 180, 380, 680. Research Course.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the graduate advisor in economics.

**ECO 180D, 380D. Internship in Economics.**

Restricted to Master's students in the Economics Option III program. Practical working involvement with an appropriate business, government or research agency, or similar institution. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; additional hours to be arranged. Prerequisite: Consent of the program adviser.

**ECO 380M. Regional Economics.**

Survey of theoretical and empirical literature related to location theory, regional development, regional disparities, growth and function of cities, and political economy of spatial planning. Three lecture hours a week for one semester. Prerequisite: Graduate standing, six semester hours of upper-division coursework in economics, and six additional semester hours of upper-division coursework in social science or business.

**ECO 380N. Urban Economics.**

Provides an economic analysis of pressing urban problems such as poverty, housing, transportation, environment, and finance. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit when the topics vary. Prerequisite: Graduate standing, six semester hours of upper-division coursework in economics, and six additional semester hours of upper-division coursework in social science or business.

**ECO 180P, 380P. Internship in Economics.**

Restricted to economics PhD students. Practical working involvement with an appropriate business, government or research agency, or similar institution. For each semester hour of credit earned, one lecture hour a week for one semester; additional hours to be arranged. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

**ECO 381K. Seminar in Money and Banking.**

Topics include monetary policy and problems, theory of central banking, and money and banking history. The equivalent of three lecture hours a week for one semester. With consent of instructor, may be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ECO 383K. Seminar in General Economic History.**

Same as History 383L. A historical study of economic development and economic policy. The equivalent of three lecture hours a week for one semester. With consent of instructor, may be repeated for credit when the topics vary. Prerequisite: Graduate standing, six semester hours of upper-division coursework in economics or related history or government, and six additional semester hours of upper-division coursework in social science or business.

### **ECO 384G. Seminar in International Economics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: International Trade.** Economics 384G (Topic 1) and 397 (Topic: International Trade) may not both be counted.

**Topic 2: International Finance.** Economics 384G (Topic 2) and 397 (Topic: International Finance) may not both be counted.

### **ECO 384H. Seminar in Public Finance.**

Analysis of public expenditure and taxation. Three lecture hours a week for one semester. Economics 382L and 384H may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Seminar in Public Economics.** Introduction to public finance subjects and research methods. Cover recent research ranging from tax incidence to social insurance programs. Economics 384H (Topic: Seminar in Public Finance) and 384H (Topic 1) may not both be counted.

### **ECO 384J. Seminar in Development Economics.**

Analysis includes theories of economic development and planning. Three lecture hours a week for one semester. Economics 380K and 384J may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ECO 384K. Industrial Organization.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Introduction to Industrial Organization.**

**Topic 2: Industrial Organization and Regulation.**

### **ECO 384N. Resource Economics.**

Definition, measurement, production, and conservation of renewable and exhaustible resources; models of economic growth and resources; world distribution and consumption; United States resource policy. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Natural Resource Economics.**

**Topic 2: Environmental Economics.**

### **ECO 385C. Probability and Statistics.**

Three lecture hours a week for one semester. Economics 385C and 392M (Topic 19) may not both be counted. Prerequisite: Graduate standing.

### **ECO 385D. Mathematics for Economists.**

Three lecture hours a week for one semester. Economics 385D and 392M (Topic 8) may not both be counted. Prerequisite: Graduate standing.

### **ECO 385K. Labor Economics.**

Analysis of the empirical and theoretical factors that influence labor markets. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Introduction to Labor Economics.**

**Topic 3: Advanced Labor Economics.** Economics 385K (Topic 2) and 385K (Topic 3) may not both be counted.

### **ECO 386C. Microeconomics I.**

Three lecture hours a week for one semester. Economics 386C and 387L (Topic 1) may not both be counted. Prerequisite: Graduate standing.

### **ECO 386D. Microeconomics II.**

Three lecture hours a week for one semester. Economics 386D and 387L (Topic 3) may not both be counted. Prerequisite: Graduate standing.

### **ECO 386E. Seminar in Advanced Microeconomics.**

Three lecture hours a week for one semester. Economics 386E and 387L may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Introduction to Game Theory.** Economics 386E (Topic 1) and 387L (Topic 27) may not both be counted.

**Topic 2: Applications of Game Theory.** Economics 386E (Topic 2) and 387L (Topic 28) may not both be counted.

**Topic 3: Advanced Microeconomic Analysis.** Economics 386E (Topic 3) and 387L (Topic 26) may not both be counted.

**Topic 4: Mathematical Economics.** Economics 386E (Topic 4) and 387L (Topic 24) may not both be counted.

**Topic 5: Experimental Methods in Economics.**

**Topic 6: Health Economics.** Economics 386E (Topic: Health Economics) and Economics 386E (Topic 6) may not both be counted.

### **ECO 387C. Macroeconomics I.**

Three lectures a week for one semester. Economics 387C and 387L (Topic 2) may not both be counted. Prerequisite: Graduate standing.

### **ECO 387D. Macroeconomics II.**

Three lecture hours a week for one semester. Economics 387D and 387L (Topic 4) may not both be counted. Prerequisite: Graduate standing.

### **ECO 387E. Seminar in Advanced Macroeconomics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**Topic 1: Advanced Macroeconomic Analysis I.** Economics 387E (Topic 1) and 387L (Topic 15) may not both be counted. Offered on the credit/no credit basis only.

**Topic 2: Advanced Macroeconomic Analysis II.** Offered on the credit/no credit basis only.

### **ECO 387K. Monetary Theory.**

Theories, based on microeconomic foundations, covering such topics as the usefulness of monetary exchange, optimal central bank policy, the interaction of monetary and fiscal policy, and the role of financial intermediation in the macroeconomy. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ECO 387M. Writing Seminar in Economics.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**ECO 187N. Survey of Fields in Economics.**

Introduction to the questions, methods, and scope of research in different fields in economics. One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**ECO 388C. Econometrics I.**

Three lecture hours a week for one semester. Economics 388C and 392M (Topic 2) may not both be counted. Prerequisite: Graduate standing.

**ECO 388D. Econometrics II.**

Three lecture hours a week for one semester. Economics 388D and 392M (Topic 3) may not both be counted. Prerequisite: Graduate standing.

**ECO 388E. Seminar in Advanced Econometrics.**

Three lecture hours a week for one semester. Economics 388E and 392M may not be both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Advanced Econometric Theory I.** Economics 388E (Topic 1) and 392M (Topic 6) may not both be counted.

**Topic 2: Advanced Econometric Theory II.** Economics 388E (Topic 2) and 392M (Topic 7) may not both be counted.

**Topic 3: Applied Microeconometrics.** Economics 388E (Topic 3) and 392M (Topic 4) may not both be counted.

**Topic 4: Time-Series Analysis.** Economics 388E (Topic 4) and 392M (Topic 5) may not both be counted.

**Topic 5: Applied Macroeconometrics.** Economics 388E (Topic 5) and 392M (Topic 15) may not both be counted.

**ECO 390L. Seminar in the History of Economic Thought.**

Survey and analysis of principal contributions and historical influences in the evolution of contemporary economic thought from the late eighteenth through the early twentieth century. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit when the topics vary. Prerequisite: Graduate standing, and completion of core courses in economic theory or consent of instructor.

**ECO 492L. Quantitative Methods in Economics.**

Topics include optimization methods, probability theory, and statistical inference. Four lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**ECO 393. Seminar in Industrial Organization.**

The equivalent of three lecture hours a week for one semester. With consent of instructor, may be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**ECO 394C. Mathematics for Economists.**

Restricted to master's students in the economics Option III program. Mathematical tools widely used for economic analysis, including advanced calculus, optimization methods, linear algebra, and dynamic systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**ECO 394D. Probability and Statistics.**

Restricted to master's students in the economics Option III program. Probability theory and statistical methods used in economics and econometrics. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**ECO 394K. Microeconomics.**

Restricted to master's students in the economics Option III program. Rigorous introduction to the methods of microeconomic theory, including consumer and producer theory, decision under uncertainty, markets and

competition, and general equilibrium. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**ECO 394L. Macroeconomics.**

Restricted to master's students in the economics Option III program. Dynamic optimization concepts and methods used in modern macroeconomics. General equilibrium applications in the areas of economic growth, business cycles, and the role of monetary and fiscal policy. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**ECO 394M. Econometrics.**

Restricted to master's students in the economics Option III program. Identification and estimation of linear and nonlinear regression models; inference and hypothesis testing. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**ECO 395K. Topics and Applications in Microeconomics.**

Restricted to Option III economics master's degree students. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Game Theory.** Restricted to master's students in the economics Option III program. Introduction to game theoretic concepts and analyses and their application to study strategic interactions between individuals, firms, and other economic agents.

**ECO 395L. Topics and Applications in Macroeconomics.**

Restricted to master's students in the economics Option III program. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**ECO 395M. Topics and Applications in Quantitative Methods.**

Restricted to master's students in the economics Option III program. Three lecture hours per week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**ECO 396. Studies in Economic History.**

The equivalent of three lecture hours a week for one semester. With consent of instructor, may be repeated for credit when the topics vary. Prerequisite: Graduate standing, six semester hours of upper-division coursework in economics, and six additional semester hours of upper-division coursework in social science or business.

**ECO 397. Seminar in International Economic Problems.**

The equivalent of three lecture hours a week for one semester. With consent of instructor, may be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**ECO 297K. Specialized Topics in Microeconomics.**

Restricted to Option III economics master's degree students. Two lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**ECO 297L. Specialized Topics in Macroeconomics.**

Restricted to Option III economics master's degree students. Two lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**ECO 297M. Specialized Topics in Quantitative Methods.**

Restricted to Option III economics master's degree students. Two lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ECO 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in economics, twelve semester hours of upper-division or graduate coursework in economics, and consent of the graduate adviser; for 698B, Economics 698A.

### **ECO 198K. Specialized Topics in Microeconomics.**

Restricted to students in the Option III economics master's degree program. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ECO 198L. Specialized Topics in Macroeconomics.**

Restricted to students in the Option III economics master's degree program. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ECO 198M. Specialized Topics in Quantitative Methods.**

Restricted to students in the Option III economics master's degree program. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ECO 398T. Supervised Teaching in Economics.**

Teaching under the close supervision of the course instructor; weekly group meetings, individual consultations, and reports. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and appointment as a teaching assistant.

### **ECO 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Educational Leadership and Policy Courses**

## **Educational Leadership and Policy: ELP Lower-Division Courses**

### **ELP 017. First-Year Connection Seminar: University Leadership Network.**

Explore undergraduate education through lectures, discussion, and experiential learning focusing on various contemporary issues, with an emphasis on multidisciplinary perspectives and critical discourse. One lecture hour a week for one semester. May be repeated for credit.

## **Upper-Division Courses**

### **ELP 327M. First-Year Seminar: University Leadership Network Mentors.**

Explore undergraduate education, as it pertains to student educators, through lectures, peer leadership best practices, discussion, and experiential learning. Three lecture hours a week for one semester. May be repeated for credit.

### **ELP 127S, 227S, 327S. Academic Success Seminar.**

Explore academic success strategies and complete a project related to each student's probationary status at the University. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit.

### **ELP 351L. Leadership for New Student Transition.**

Explore peer leadership within the University community, with a focus on supporting the transition to college through the first-year experience. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **ELP 351N. Sorority and Fraternity Leadership Issues.**

Explore leadership within university sororities and fraternities. Discuss leadership skills in areas such as community building, risk management, social justice, and community service. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Consent of the Office of the Dean of Students.

### **ELP 354C. How Colleges Work.**

Examine the ways in which colleges function, informed by history, bureaucracy, organization, administration, governance, and law and policy. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **ELP 354E. College Students and Their Environments.**

Examine issues challenging the ability of colleges to support students, including campus history and legacy. Explore how students' environments affect the way they engage with colleges. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **ELP 354K. Special Topics in Higher Education.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **ELP 354R. Introduction to Research in Higher Education.**

Explore an overview of research methods and approaches, including basic terminologies and ways to deploy research in service to student affairs work. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **ELP 354S. Social Awareness and Critical Consciousness in Student Affairs.**

Engage in understanding personal cultural and social backgrounds and how positionality influences the way one thinks about students, colleges, and student affairs. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **ELP 354T. Introduction to Student Affairs in Higher Education.**

Explore an overview of student affairs functions, challenges, and goals both within and external to traditional student affairs units. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

## **Graduate Courses**

### **ELP 381C. Education Research I.**

Explores educational research paradigms and epistemologies; introduction to basic educational research design decisions such as when to use qualitative, quantitative, or mixed-methods, the differences in these approaches and strengths each approach brings to the research endeavor. Three lecture hours a week for one semester. Educational Administration 381L and Educational Leadership and Policy 381C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **ELP 381D. Education Research II.**

A continuation of Education Research I, with an emphasis on the basics of statistical techniques and qualitative approaches; skills related to data collection and analysis; and conceptual and practical understanding of the research process and how to ensure quality while engaged in

research. Three lecture hours a week for one semester. Educational Administration 381M and Educational Leadership and Policy 381D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Educational Leadership and Policy 381C.

#### **ELP 183N, 383N, 683N, 983N. Graduate Internship.**

Supervised practice in a professional position. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Educational Administration 397P, 697P, 997P, 397Q, 697Q, 997Q, Educational Leadership and Policy 183N, 383N, 683N, 983N. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

#### **ELP 183P, 383P, 683P, 983P. Individual Projects.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Educational Administration 383, 683 (Topic 1) and Educational Leadership and Policy 183P, 383P, 683P, 983P may not both be counted. May be repeated for credit. Prerequisite: Consent of instructor.

#### **ELP 384D. Administration of the Individual School.**

Enrollment in the principalship program in educational leadership and policy. Organization, direction, management, and leadership for the program of a single school. Three lecture hours a week for one semester. Educational Administration 382T and Educational Leadership and Policy 384D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 384E, 684E. Public School Leadership.**

Enrollment in the principalship program in educational leadership and policy. A fused, multidisciplinary foundational core course covering major task areas, administrative theory and processes, and supporting knowledge from other disciplines. For each semester hour of credit earned, one lecture hour a week for one semester. Educational Administration 682H (Topic 1) and Educational Leadership and Policy 384E, 684E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 384F. Foundations of Educational Policy.**

Introduction to the history of the American educational system. Considers historical, economic, social, and political precedents when examining contemporary educational policy. Emphasis on policies related to race, ethnicity, class, and gender, and the recurring nature of controversial issues related to language, segregation, funding, and accountability. Three lecture hours a week for one semester. Educational Administration 395F and Educational Leadership and Policy 384F may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 184G, 384G, 684G. General, Elementary, and Secondary Programs.**

Enrollment in the principalship program in educational leadership and policy. To introduce principal responsibilities for general education programs regarding state/local budget, policies and practices for elementary and secondary schools. Executive leadership practices for general education with an emphasis on instruction, data triangulation, organizational design, fiscal management, strategic planning and site-based decision making for elementary and secondary schools. For each semester hour of credit earned, one lecture hour a week for one semester. Educational Administration 385, 685 (Topic 1) and Educational Leadership and Policy 184G, 384G, 684G may not both be counted. Prerequisite: Graduate standing.

#### **ELP 384H. Policy Implementation.**

Examine the challenges and implementation of systemic school reform in the context of American cities. Three lecture hours a week for one semester. Only one of the following may be counted: Educational Administration 395G, Educational Leadership and Policy 384H, 384M. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 384J. Policy Analysis in Education.**

Analyze policy in education, including traditional and critical approaches. Review methods and principles of policy analysis, the role of policy development, context, history, and micropolitical influences. Three lecture hours a week for one semester. Only one of the following may be counted: Educational Administration 395M, Educational Leadership and Policy 384C, 384J. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 384L. Legal Issues in Schools.**

Enrollment in the principalship program in educational leadership and policy. Legal bases for organizing and administering public and private school systems; statutes and court decisions affecting educational functions; administrative legal issues pertaining to various functions of school. Three lecture hours a week for one semester. Educational Administration 388L and Educational Leadership and Policy 384L may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 184N, 384N, 684N. School Business Management.**

Enrollment in the principalship program in educational leadership and policy. Examines the organization of elementary and secondary schools and the expertise needed to manage their resources. Applied learning opportunities in the areas of school finance and accounting, property management, state reporting and other statutory requirements, policy interpretation, budget preparation and administration, cash management, personnel management, purchasing, risk management, and strategic planning. For each semester hour of credit earned, one lecture hour a week for one semester. Educational Administration 383, 683 (Topic 5) and Educational Leadership and Policy 184N, 384N, 684N may not both be counted. Prerequisite: Graduate standing.

#### **ELP 384P, 684P. Principalship.**

Enrollment in the principalship program in educational leadership and policy. Group and individual studies of research literature; execution of investigative projects and reports of research. For each semester hour of credit earned, one lecture hour a week for one semester. Educational Administration 383, 683 (Topic 15) and Educational Leadership and Policy 384P, 684P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 384Q. Leading for Equity and Justice in K-12 Schools.**

Enrollment in the principalship program in educational leadership and policy. Explores development of leadership capacity to lead high-achieving, equitable, and socially just schools for all students in integrated ways, especially for students who have been traditionally underserved. Focus on research-based leadership practices for addressing inequities and ways to develop schools that give all students equitable opportunity for high academic achievement. Three lecture hours a week for one semester. Educational Administration 395E and Educational Leadership and Policy 384Q may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 384R, 684R. School, Family and Community Engagement.**

Enrollment in the principalship program in educational leadership and policy. Introduction to concepts of school-family-community engagement with a focus on equity, social justice, and democratic

participation. Explores the capacity to lead community engaged schools through equitably and authentically partnering with traditionally underserved families, communities, and community-based organizations. For each semester hour of credit earned, one lecture hour a week for one semester. Educational Administration 383, 683 (Topic 2) and Educational Leadership and Policy 384R, 684R may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 384S. School Leadership: Micropolitics and Change.**

Enrollment in the principalship program in educational leadership and policy. The micropolitics of leadership, from control to empowerment, as they affect what principals can and should do about change within the school. Designed to assist prospective principals in analyzing and interpreting the dynamic process of initiation, implementation, and institutionalization of change in and around schools. Three lecture hours a week for one semester. Educational Administration 395C and Educational Leadership and Policy 384S may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 384T. School Improvement: Instructional Leadership and Development.**

Enrollment in the principalship program in educational leadership and policy. Designed to provide prospective school leaders with the conceptual, technical, and human-interaction skills necessary for school improvement. Focus on knowledge, principles, problems, and issues related to instructional leadership. Examines instructional supervision theory, goals, functions, supervisory models, and strategies that enhance teaching and learning. Three lecture hours a week for one semester. Educational Administration 385C and Educational Leadership and Policy 384T may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 384V. Poverty and Education Policy.**

The social context of education, the development and expansion of concentrated poverty in central-city schools, and the relationship between poverty and educational performance as it affects schoolchildren and parents in closely related fields such as welfare, housing, employment and training, health care, food assistance, and day care. Three lecture hours a week for one semester. Educational Administration 395J and Educational Leadership and Policy 384V may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 384W. Systems for Observing and Analyzing Instruction.**

Enrollment in the principalship program in educational leadership and policy. Explores skills in systematic observation, organized ways of examining teacher/student behavior in the classroom. Incorporates Texas Teacher Assessment Seminar training. Three lecture hours a week for one semester. Educational Administration 381K and Educational Leadership and Policy 384W may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 385C. Contemporary Issues In Higher Education Management.**

An examination of responsibilities, functions, challenges, and current issues that affect managers in institutions of higher education. Three lecture hours a week for one semester. Educational Administration 391Q and Educational Leadership and Policy 385C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 385E. The College Student.**

Study of the student population in contemporary colleges and universities, with emphasis on student development theory and the impact of campus environments on student development. Three lecture hours a week for one semester. Educational Administration 391E and

Educational Leadership and Policy 385E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 385R. Organization and Administration of Higher Education.**

Introduction to the study of higher education organizations. Analysis of all elements of higher education institutions, with particular attention to structure and governance. Three lecture hours a week for one semester. Educational Administration 391R and Educational Leadership and Policy 385R may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 385T. Student Affairs in Higher Education.**

Examination of the rationale for student affairs professions and the various administrative units involved in carrying out their mission. Three lecture hours a week for one semester. Educational Administration 391P and Educational Leadership and Policy 385T may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 190C, 290C, 390C. Proseminar: Introduction to P20 Research and Careers.**

Foundation for cohort interaction among incoming doctoral students. Establishes a learning community among students and faculty to explore issues related to P20 education with opportunities for team conferring, planning, academic research, relevant practical experiences and site visits, professional presenting, writing and analysis, and other curricular and career enhancement opportunities. For each semester hour of credit earned, one lecture hour a week for one semester. Educational Administration 181F, 281F, 381F and Educational Leadership and Policy 190C, 290C, 390C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 390D. Pro-Seminar and Systems of Higher Education.**

Restricted to students in the Executive Doctoral Education Program. Build the foundation for cohort interaction and provides opportunities to explore issues related to careers and research in higher education. An introduction to the systems of higher education in the United States. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

#### **ELP 390E. Economics and Finance.**

Survey of the theoretical and empirical literature related to the economic context of and finance policy within K-12 or higher education institutions. Separate K-12 and higher education sections are taught. Covers a wide range of concepts, processes, and policies, such as patterns of financing educational institutions; federal, state, and local governmental roles; revenue sources; costs; benefits; equity; efficiency; budgeting; and finance policy implementation. Three lecture hours a week for one semester. Educational Administration 388E and Educational Leadership and Policy 390E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 390F. School Finance and Ethics.**

A study of public school finance, including budgeting and accounting, encompassing historical and current trends and legal issues. An in-depth examination of state school finance for educational leaders addressing legal and ethical issues and strategic planning that impact the operation of public schools will be addressed. The principal issues that are examined are why education is worthy of funding, who contributes to that funding, and in what proportions, and how the funding is raised in adequate amounts and equitably distributed. Current trends in Texas school finance and what the future holds for education finance will also be examined. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**ELP 390P. Educational Politics and Policy.**

Survey of theoretical and empirical literature related to educational politics and policy concerning K-12 or higher education institutions, including political systems theory, intergovernmental relations, power and conflict, community relations and intergroup theory, and policies dealing with equity, quality, efficiency, and choice. Three lecture hours a week for one semester. Educational Administration 388P and Educational Leadership and Policy 390P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**ELP 390R. Organizational Design and Behavior.**

Theories of organization from structuralist, behaviorist, and critical traditions that are useful for diagnosing problems endemic to schools and colleges, and for developing skills necessary for administering complex educational systems. Study of concepts related to bureaucracy, organizational design, decision making, power and control, leadership, motivation, and organizational communication. Three lecture hours a week for one semester. Educational Administration 382M and Educational Leadership and Policy 390R may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**ELP 390S. Social and Cultural Contexts of Education.**

Examines the relationship of contemporary educational institutions, both public school and higher education, to their social setting. Three lecture hours a week for one semester. Educational Administration 388M and Educational Leadership and Policy 390S may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**ELP 390V. Ethics and Values in Educational Leadership.**

Examination, from the point of view of various ethical systems, of issues of equity, distributive justice, codes of ethics in educational professions, treatment of students, and other issues that face administrators of educational systems. Designed to sensitize prospective educational leaders to the ethical content of educational decisions. Three lecture hours a week for one semester. Educational Administration 388V and Educational Leadership and Policy 390V may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**ELP 391E. Epistemologies of Educational Research.**

Introduction to the range of different epistemological perspectives that are used in the conduct of social science research, including the scientific method/positivism, postpositivism, interpretivism, postmodernism, critical theory, race-based and culture-based perspectives, and feminisms. Three lecture hours a week for one semester. Educational Administration 387Q and Educational Leadership and Policy 391E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**ELP 391P. Quantitative Research Design and Analysis.**

Introduction to the knowledge base in measurement theory and quantitative research designs, including research designs appropriate to different research contexts; and analyzing, interpreting, and representing statistical data to scholarly and practitioner audiences. Three lecture hours a week for one semester. Educational Administration 381P and Educational Leadership and Policy 391P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Educational Leadership and Policy 391E.

**ELP 391Q. Qualitative Research Design and Analysis.**

Introduction to the utilization of theoretical frames; research questions or focus, and literature reviews; ethical issues; research design; research methods; data analysis; representations of data; interpretation of data; trustworthiness; implications; and strengths and limitations in the conduct of qualitative research. Three lecture hours a week for one semester. Educational Administration 381Q and Educational Leadership

and Policy 391Q may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Educational Leadership and Policy 391E.

**ELP 392E, 692E. Program Evaluation Methods.**

Covers designing and implementing educational program evaluations; collect, analyze, and interpret qualitative and quantitative evaluation data; create and use communications and reports to engage key stakeholders; The primary emphasis is on the theory, issues, topics, and applications of program evaluation in educational environments. For each semester hour of credit earned, one lecture hour a week for one semester. Educational Administration 383, 683 (Topic 17) and Educational Leadership and Policy 392E, 692E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Educational Leadership and Policy 391E.

**ELP 392P. Advanced Quantitative Design and Analysis.**

Integrated coverage of advanced quantitative methods for education research. A conceptual approach with an emphasis on reading and writing research results sections. Subjects include missing data techniques and statistical procedures, such as linear regression, multiple regression, ANCOVA, logistic regression, and exploratory factor analysis, among other topics. Three lecture hours a week for one semester. Educational Administration 383 (Topic: ADV QUANTITATIVE RSCH AND ANLY) and Educational Leadership and Policy 392P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing, Educational Leadership and Policy 391E and 391P.

**ELP 392Q. Advanced Qualitative Research Design and Analysis.**

Examines in-depth exemplary qualitative studies and considers critical issues that have been raised in qualitative research. Three lecture hours a week for one semester. Educational Administration 381S and Educational Leadership and Policy 392Q may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Educational Leadership and Policy 391E and 391Q.

**ELP 392S. Survey Research Methods in Educational Research.**

Focus on the knowledge, design, planning, implementation, and interpretations of survey research methods. Covers information on purposes of survey research, theoretical and/or empirical basis for survey research, and development of different types of questionnaire items. Methods of selecting a sample and instrument validity and reliability are included, along with statistical procedures to review and interpret survey results. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and Educational Leadership and Policy 391E and 391P.

**ELP 393D. Law and Disabilities.**

Issues of law and policy associated with serving people with disabilities; with emphasis on federal legislation. Three lecture hours a week for one semester. Educational Administration 393D and Educational Leadership and Policy 393D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**ELP 193N, 393N, 693N, 993N. Graduate Internship.**

Supervised practice in a professional position. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Educational Administration 397P, 697P, 997P, 397Q, 697Q, 997Q, Educational Leadership and Policy 193N, 393N, 693N, 993N. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**ELP 193P, 393P, 693P, 993P. Individual Projects.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Educational Administration 383, 683 (Topic 1) and Educational Leadership and Policy 193P, 393P, 693P, 993P may not both be counted. May be repeated for credit. Prerequisite: Consent of instructor.

**ELP 193R, 393R, 693R, 993R. Research Apprenticeship.**

Group and individual projects in research design, research methodologies, and research execution. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Educational Administration 196, 296, 396, Educational Leadership and Policy 193R, 393R, 693R, 993R. Prerequisite: Graduate standing and consent of instructor.

**ELP 193S, 393S. Superintendent Practicum.**

Enrollment in the Cooperative Superintendency Program (CSP) in educational leadership and policy. Group and individual studies of research literature; execution of investigative projects and reports of research. For every hour of credit earned, one lecture hour a week for one semester. Educational Administration 383 (Topic: PRACT IN PUBLIC SCH ADMIN-CSP) and Educational Leadership and Policy 193S, 393S may not both be counted. Prerequisite: Graduate standing.

**ELP 193T, 393T, 693T, 993T. Directed Research in Educational Leadership and Policy.**

Investigation of assigned problems under direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; production of acceptably written reports of a technical character. Conference course. Only one of the following may be counted: Educational Administration 396T, Educational Leadership and Policy 193T, 393T, 693T, 993T and 199P, 399P, 699P and 999P. May be repeated for credit. Prerequisite: Consent of instructor.

**ELP 394C, 694C. School District Administrative Functions I.**

Enrollment in the Cooperative Superintendency Program (CSP) in educational leadership and policy. Focus on school district governance and the in depth the relationship of the superintendent and board of trustees and their respective roles according to the Texas Education Code. Investigates school facility planning and plant management, including the financing of facilities and the most up to date designs that enhances learning. Explores the function of human resources with a focus on recruitment, selection, and professional development of school district staff as well as important legal implications affecting district personnel. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Educational Administration 383 (Topic: SCHOOL DSTRCT ADMN FNCTNS I), 385, 685 (Topic 6), and Educational Leadership and Policy 394C, 694C. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**ELP 394D, 694D. School District Administrative Functions II.**

Enrollment in the Cooperative Superintendency Program (CSP) in educational leadership and policy. Focus on three areas of the superintendents' job: first, external and internal communications; second, hands-on practice in the area school finance, including state and local funding strategies and budgeting; third, the use of technology in today's school setting. Includes the study of school district safety and security practices, student transportation planning and requirements, and school district child nutrition operations. For each semester hour of credit earned, one lecture hour a week for one semester. Educational Administration 385, 685 (Topic 6) and Educational Leadership and Policy 394D, 694D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing, Educational Leadership and Policy 394C, and 694C.

**ELP 394E. Capstone: Policy Research Problems.**

Advanced seminar designed to help students develop research plans specifically for either a research proposal or a long-range research agenda. Three lecture hours a week for one semester. Educational Administration 395K and Educational Leadership and Policy 394E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**ELP 394F. Special Education Leadership and Policy.**

Advanced study of special education policies and practices focused on school leadership and school improvement for inclusive and high-quality schools. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**ELP 394K. Topics in K-12 in Educational Leadership and Policy.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Advanced Policy Seminar in Latinx Education Issues.** Policy issues experienced by Latinos in the United States. Issues include testing, English as a Second Language programs, and bilingual education. Educational Administration 395L and Educational Leadership and Policy 394K (Topic 1) may not both be counted.

**Topic 2: Market-Based Reforms in Education.** Introduction to research on school choice, charter schools, and voucher policies, including the history of school choice policies, political contexts, and theories about choice from multiple disciplines. Also explores research on school choice, such as how parents make choices and how schools respond to them; the impact school vouchers and charter schools can have on diversity and segregation; and the nature of teacher labor markets in choice settings. Educational Administration 394C and Educational Leadership and Policy 394K (Topic 2) may not both be counted.

**Topic 3: Place, Opportunity, and Education.** Explores the relationship between social context or "place"; opportunity structures (i.e. physical and social structures that mediate access to opportunities (i.e. services, institutions, labor markets, etc.)), and outcomes in education. Educational Administration 394D and Educational Leadership and Policy 394K (Topic 3) may not both be counted.

**Topic 4: Schools and Gentrification.** Examines research on school gentrification, neighborhood gentrification, and school closures. Educational Administration 394E and Educational Leadership and Policy 394K (Topic 4) may not both be counted.

**Topic 5: Law, Leadership, and Discipline Policy.** Analysis of policies and practices in elementary, middle, and high school that impact the success of youth, with an emphasis on children of color and children with behavioral health challenges in educational and disciplinary placements. Examines aspects of the juvenile and adult criminal justice systems that intersect with the educational system and the disproportionate impact of these policies on children of color and those with special education needs, and considers means to promote better outcomes. Educational Administration 394F and Educational Leadership and Policy 394K (Topic 5) may not both be counted.

**Topic 6: Language Policy in Education.** Advanced seminar in language policy across elementary, secondary, and higher education levels. Explores language ideologies as a right, resource or problem.

**Topic 7: Immigration Theory in Education.** Advanced, interdisciplinary investigations of selected topics and problems in program and research design regarding the integration and education of immigrant youth in U.S. educational systems.

**Topic 8: Urban Schools and Communities: Policies and Practices.** Advanced study of urban schools in America. Explore policies and practices that affect the performance of students, teachers,

and leaders in urban contexts. Develop potential solutions to the challenges those schools currently face.

#### **ELP 394L. School Law.**

Legal bases for organizing and administering public and private school systems; statutes and court decisions affecting educational functions; administrative legal issues pertaining to various functions of school districts. Three lecture hours a week for one semester. Educational Administration 388L and Educational Leadership and Policy 394L may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 394N. School District Instructional Leadership.**

Enrollment in the Cooperative Superintendency Program (CSP) in educational leadership and policy. Connects educational leadership theories with teachers, teaching and student learning, understanding moral and ethical leadership, and building cultural competencies and practices across the school district. Explores common core standards, instructional frameworks, and content-specific instructional practices; differentiated instruction; and assessments of student learning. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 394P. Personnel Administration: Managing Instructional Resources.**

Enrollment in the Cooperative Superintendency Program (CSP) in educational leadership and policy. Functions of school personnel offices. Subjects include development of personnel administration; job descriptions; planning for personnel needs; recruitment, selection, and evaluation of personnel; and management of the personnel office. Three lecture hours a week for one semester. Educational Administration 394P and Educational Leadership and Policy 394P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 394R. School District Restructuring and Renewal.**

Enrollment in the Cooperative Superintendency Program (CSP) in educational leadership and policy. Critical examination of school restructuring, renewal research, and systemic change processes since 1975. Study and evaluation of school restructuring and renewal processes, and their underlying research bases, in conjunction with the influence patterns of teachers, principals, superintendents, school boards, parents, and state and national policy makers on the development and use of such concepts and processes. Three lecture hours a week for one semester. Educational Administration 383 (Topic: SCH RESTRUCTURING/RENEWAL-CSP) and Educational Leadership and Policy 394R may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 394S. Superintendent Seminar.**

Enrollment in the Cooperative Superintendency Program (CSP) in educational leadership and policy. Involves completion of a final portfolio that demonstrates knowledge, skills, and dispositions required of district level leaders. Students will draft a Professional Development Plan (PDP), considering their own progress in leadership development as determined by completing an Administrative Leadership Inventory and their unique practicum experiences. Students will address perceived program/ personal professional gaps and address means to close them, and participate in further development experiences. Students will develop a working mentor relationship with a superintendent or district-level staff person to advance knowledge, skills, and practice emphasizing those areas of perceived need. Three lecture hours a week for one semester. Educational Administration 395 (Topic: SUPERINTENDENCY SEMINAR-CSP) and Educational Leadership and Policy 394S may not both be

counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 394T, 694T. Administrative Theory.**

Enrollment in the Cooperative Superintendency Program (CSP) in educational leadership and policy. Covers leadership theory and models from multidisciplinary perspectives. Outlines the tasks associated with the role of the superintendent, along with processes, and relationships expected of the role. For each semester hour of credit earned, one lecture hour a week for one semester. Educational Administration 695 (Topic: ADVANCED ADMIN THRY & PRAC-CSP) and Educational Leadership and Policy 394T, 694T may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 395C. Capstone: Advanced Issues in Higher Education.**

Designed as a capstone experience for doctoral students in the Program in Higher Education Leadership. Examines current issues in higher education from a practical and administrative perspective. Three lecture hours a week for one semester. Educational Administration 391F and Educational Leadership and Policy 395C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of graduate adviser.

#### **ELP 395E. Research on College Students.**

A study of both theoretical and practical issues related to research with, of, and on college students. Focus on applied research methods and strategies appropriate for most student affairs/services professionals. Three lecture hours a week for one semester. Only one of the following may be counted: Educational Administration 391K (Topic: Research on College Students), 391K (Topic 20), and Educational Leadership and Policy 395E. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 395H. History of Higher Education.**

The development of higher education since the Middle Ages, with emphasis on the development of higher education in the United States. Three lecture hours a week for one semester. Educational Administration 391S and Educational Leadership and Policy 395H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ELP 395K. Topics in Higher Education in Educational Leadership and Policy.**

Administrative organization, functions, and practices within colleges and universities; roles of the administrator and principles of effective administrative practice; intensive study in selected areas of college operation. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Comparative Higher Education.** Examination of the higher education systems and institutions of selected countries. Educational Administration 391C and Educational Leadership and Policy 395K (Topic 1) may not both be counted.

**Topic 2: Leadership in Higher Education.** Examination of foundational theories, leadership strategies in higher education, personal leadership values and qualities, and application of leadership theories to contemporary contexts. Educational Administration 391G and Educational Leadership and Policy 395K (Topic 2) may not both be counted. Additional prerequisite: Completion of at least two semesters of doctoral coursework in educational leadership and policy or consent of instructor.

**Topic 3: Community Colleges.** History of the values, purpose, and mission of community colleges, with an overview of major functions such as transfer, workforce development, adult basic education, and continuing education. Explores various models of community

college governance, funding sources, and alternative funding models. Educational Administration 391K (Topic 1) and Educational Leadership and Policy 395K (Topic 3) may not both be counted.

**Topic 4: Gender in Higher Education.** Examination of gender within higher education contexts. Educational Administration 391K (Topic 15) and Educational Leadership and Policy 395K (Topic 4) may not both be counted.

**Topic 5: Equity and Diversity in Higher Education.** Examines the legal, educational and public policy issues related to college access, educational equity, and racial/ethnic diversity in American higher education. Educational Administration 391K (Topic 17) and Educational Leadership and Policy 395K (Topic 5) may not both be counted.

**Topic 6: Legislative Issues in Higher Education.** Focus on legislative and policy issues in Texas higher education, with an attendant focus on the national policy context. Provides an overview of the state-level policy making process and addresses various policy issues related to higher education access, equity, finance, governance, diversity, and more. Educational Administration 391K (Topic 19) and Educational Leadership and Policy 395K (Topic 6) may not both be counted.

**Topic 7: Gender and Adult Development.** Utilizes historical, stage, sociocultural, narrative, and psychosocial approaches to examine adult development, primarily within a higher education context. Theories discussed include sexual identity, gender identity, racial/ethnic identity, cognitive development, psychological development, and moral development; plus the general development of women and men. Educational Administration 395 (Topic: Gender and Adult Development) and Educational Leadership and Policy 395K (Topic 7) may not both be counted.

**Topic 8: Technology and Innovation in Higher Education.** Examines big ideas pertaining to technology and innovation in higher education with a particular focus on developing the ability to design strategic interventions aimed at educational improvement on American college and university campuses. Explores theories of innovation, the adoption of innovation, and process of designing and creating innovate solutions to contemporary problems in higher and post-secondary education. Only one of the following may be counted: Educational Administration 391K (Topic 7), 391K (Topic 23), Educational Leadership and Policy 395K (Topic 8).

**Topic 9: Multicultural Modes of Mentoring.** Examines literature of developmental relationships and concepts such as sponsorship, coaching, and role modeling with an emphasis on mentoring in higher educational settings. Participants will engage in self-reflective exercises pertaining to their own developmental relationships. Explores prominent mentoring programs on both on campus and in the larger Austin community. Only one of the following may be counted: Educational Administration 391K (Topic 8), 391K (Topic 24), Educational Leadership and Policy 395K (Topic 9).

**Topic 10: Problems of College Teaching and Learning.** Hands-on, project-based. Explores problems of college teaching and learning through a past, present, and future lens. Survey of the full ecosystem of the college campus as opposed to just the traditional classroom. Covers investigating and designing interventions for pedagogical and learning problems within various units on college or university campuses. Only one of the following may be counted: Educational Administration 391K (Topic: Problems of College Teaching), 391K (Topic 3), Educational Leadership and Policy 395K (Topic 10).

**Topic 11: Critical Consciousness in Higher Education.** Introduction to foundational historical and theoretical issues for the critical study of higher education diversity work. Examines the ways institutions of higher education and student affairs areas enact change around issues of difference, identity, oppression, and social justice. Integrates questions of identity with those of social justice, and explores understanding self and others. Educational Administration 391K

(Topic 5) and Educational Leadership and Policy 395K (Topic 11) may not both be counted.

**Topic 12: Higher Education Budgeting and Finance.** An overview of higher education finance, including the economics of higher education, the principles and practices of financing higher education, the costs of higher education, and higher education budgeting concepts as they apply to institutions and to states.

**Topic 13: Administrative Leadership in Higher Education.** Educational Administration 391K (Topic 2) and Educational Leadership and Policy 395K (Topic 13) may not both be counted.

**Topic 14: Institutional Research and Planning.** Study of the ways planning and governance are informed by data collection, analysis, and information-use strategies in order to improve institutions of higher education. Institutional research and planning functions in colleges and universities. Educational Administration 391D and Educational Leadership and Policy 395K (Topic 14) may not both be counted.

**Topic 15: The American Professorate.** Educational Administration 391K (Topic 14) and Educational Leadership and Policy 395K (Topic 15) may not both be counted.

**Topic 16: Policy Issues in Higher Education.** Educational Administration 391K (Topic 9) and Educational Leadership and Policy 395K (Topic 16) may not both be counted.

**Topic 17: Assessment in Higher Education.** Focus on the administrative and educational requirements for assessing student learning outcomes in higher education. Covers methodologies, basic approaches, politics, ethics and other concerns related to college student assessment. Analyzes the variety of learning outcomes for a diverse set of programs and services (i.e., counseling, health, judicial affairs, first-year student programs, career services) as well as understand the administrative components of an effective assessment program within a higher education setting. Educational Administration 391K (Topic 18) and Educational Leadership and Policy 395K (Topic 17) may not both be counted.

**Topic 18: Ethical Leadership and Governance.** Restricted to students in the Executive Doctoral Education Program. Examine levels of governance in higher education, issues of equity, codes of ethics in educational professions, treatment of students, and other issues that face administrators of educational systems from the point of view of various ethical systems. Prepare leaders for the ethical dimensions of educational decisions and governance, study foundational theories of ethics, and the strategies required for effective higher education leaders. Refine personal leadership values and qualities, and application of leadership theories to contemporary contexts. Additional prerequisite: Consent of instructor.

**Topic 19: Leadership for Social Justice, Equity and Inclusion.** Course restricted to students in the Executive Doctoral Education Program. Build critical consciousness, capacity to lead for equity and excellence, social justice, and anti-racism within integrated settings. Explore foundational and current issues related to research-based knowledge on equity, social justice, and inclusion in higher education. Investigate the concept of equity from different theoretical perspectives and obtain an understanding of inequality from a structural, organizational, and individual level. Additional prerequisite: Consent of instructor.

**Topic 20: Research Design Theories and Literature Review.** Restricted to students in the Executive Doctoral Education Program. An introduction to the design of educational research with a focus on literature reviews and research theories. Explore how to identify research sources; organize, summarize, and synthesize information in writing; and prepare and utilize effective research questions. Study theoretical perspectives of research design, principles of data collection, analysis and drawing conclusions from data. Additional prerequisite: Consent of instructor.

### **ELP 395L. Higher Education Law.**

Legal principles relevant to postsecondary institutions. Emphasis on statutes and cases applicable to both public and private institutions; interpretation and compliance. Three lecture hours a week for one semester. Educational Administration 391T and Educational Leadership and Policy 395L may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **ELP 395S. Systems of Higher Education.**

Introduction to the systems of American higher education. Overview of literature on historical and contemporary issues facing the system of American higher education. Three lecture hours a week for one semester. Educational Administration 390S and Educational Leadership and Policy 395S may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **ELP 396. Topics in P20 Education.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **ELP 197, 297, 397. Educational Policy and Planning Seminar.**

Restricted to Master's and doctoral students in the Educational Leadership and Policy Program. Provide professional development and advising tailored to PhD students in educational policy and planning. Build community, creating spaces for more interaction with faculty in the program area and with other students; socializes students into the culture of academia; and provides critical information to students regarding job opportunities, funding graduate education, and creating a professional identity. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor.

### **ELP 399K, 699K, 999K. Treatise.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Educational Administration 399K, 699K, 999K and Educational Leadership and Policy 399K, 699K, 999K may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree. Prior to registering, students must obtain University of Texas at Austin Institutional Review Board approval for research involving human subjects.

### **ELP 399L, 699L, 999L. Treatise.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Educational Administration 399L, 699L, 999L and Educational Leadership and Policy 399L, 699L, 999L may not both be counted. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Educational Administration 399K, 699K, 999K or Educational Leadership and Policy 399K, 699K, 999K.

### **ELP 399W, 699W, 999W. Dissertation.**

Educational Administration 399W, 699W, 999W and Educational Leadership and Policy 399W, 699W, 999W may not both be counted. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Educational Psychology Courses**

## **Educational Psychology: EDP**

### **Lower-Division Courses**

#### **EDP 304 (TCCN: EDUC 1300, PSYC 1300). Strategic Learning for the Twenty-First Century.**

Explores a wide range of subjects in educational psychology that impact student learning, including theories of cognition and motivation, and applies them to academic work. Covers strategies to improve student academic performance. Three lecture hours a week for one semester. Only one of the following may be counted: Educational Psychology 304; 110, 210, 310 (Topic 1); 110, 210, 310 (Topic 4); 110, 210, 310 (Topic 5). Offered on the letter-grade basis only.

#### **EDP 308. Statistical Reasoning and Literacy.**

Introduction to statistical applications and their interpretation in daily life. Covers principles of gathering and analyzing data, and interpreting analysis results in order to critically evaluate findings reported in the media and social science research. Explores basic statistical analyses, and skills needed for informed research consumerism. Three lecture hours a week for one semester.

#### **EDP 216, 316, 416. Intergroup Dialogue.**

Group discussion of the definitions and implications of social identities. Topics may include gender, race, ethnicity, religion, sexual orientation, physical ability, and age. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Educational Psychology 210 (Topic: Intergroup Dialogue), 210 (Topic 3), 310 (Topic 3), and 216, 316, 416. Offered on the letter-grade basis only.

#### **EDP 118T, 218T, 318T, 418T. Selected Topics in Educational Psychology.**

Issues, research, and topics of contemporary interest in various areas of educational psychology and the behavioral sciences that may vary from semester to semester. For each semester hour of credit earned, one lecture hour a week for one semester; additional laboratory hours may be arranged for some topics. May be repeated for credit when the topics vary.

**Topic 4: Myths and Mysteries of Memory.** Educational Psychology 312 (Topic 4: Myths and Mysteries of Memory) and 118T, 218T, 318T, 418T (Topic 4) may not both be counted.

**Topic 5: Introduction to Career Planning.** Introduction to social science models of career development and perspectives of work as a culturally-mediated artifact of human society. Discussion of how social scientists use data about individual characteristics and jobs to help people optimize career choices. Group and individual project-based assessments will provide opportunities to apply learned concepts to students's own career planning.

### **Upper-Division Courses**

#### **EDP 350E. Introduction to Life Span Development.**

Explores theories of personality, as well as research and literature on mental health and character development, applying principles and theories to the educative enterprise. Covers application of personality theory to the guidance of children and youth. Study of physical, social, and cognitive development in humans. Three lecture hours a week for one semester. Only one of the following may be counted: Educational Psychology 350E, 363M (Topic: Introduction to Life Span Development), and 363M (Topic 6). Prerequisite: Upper-division standing recommended.

### **EDP 350G. Adolescent Development.**

Addresses contemporary adolescent development in relation to major transitions, contextual influences, and psychosocial tasks. Covers adolescent identity development, with focus on the education of adolescents. Three lecture hours a week for one semester. Only one of the following may be counted: Educational Psychology 350G, 363M (Topic: Adolescent Development), 363M (Topic 3). Prerequisite: Upper-division standing and six semester hours of upper-division coursework in education or behavioral sciences.

### **EDP 350L. Human Sexuality.**

Taught from a psychological perspective with attention to the physiological, emotional, and relationship dimensions of sexuality. Presents factual information and promotes scholarly examination of social and personal factors in developing healthy relationships and sexual expression. Three lecture hours a week for one semester. Educational Psychology 350L and 363 (Topic 3) may not both be counted. Prerequisite: Upper-division standing.

### **EDP 352D. Introduction to Individual Counseling and Psychotherapy.**

Nature of the counseling process, dynamics of behavior change, client-counselor roles and relationships; an experiencing of the group process as a basis for studying dynamics of individual and group behavior. Three lecture hours a week for one semester. Educational Psychology 352D and 367 (Topic 1) may not both be counted. Prerequisite: Upper-division standing.

### **EDP 352G. Multicultural Approach to Counseling and Psychotherapy.**

An introduction to cultural diversity, cultural issues, cultural groups, and multiculturalism in counseling. Three lecture hours a week for one semester. Educational Psychology 352G and 367 (Topic 2) may not both be counted. Prerequisite: Upper-division standing and completion of six semester hours of upper-division coursework in behavioral sciences.

### **EDP 352K. Mindfulness, Compassion, and the Self.**

Subjects include mindfulness, self-compassion, well-being, and self-concept. Three lecture hours a week for one semester. Only one of the following may be counted: Educational Psychology 352K, 362 (Topic 8), and 362 (Topic: Mindfulness, Compassion, and the Self). Prerequisite: Upper-division standing and completion of three semester hours of coursework in behavioral sciences.

### **EDP 352N. Addiction Counseling and Theories.**

Studies in biological mechanisms of categories of commonly abused substances and behaviors, as well as prevention and treatment approaches to addiction. Includes discussion of other forms of addiction, including food, sex, and internet, and addiction in diverse populations. Three lecture hours a week for one semester. Educational Psychology 352N and 367 (Topic 3) may not both be counted. Prerequisite: Upper-division standing and completion of six semester hours of upper-division coursework in behavioral sciences.

### **EDP 354E. Psychology of Women.**

Study of women's experiences, issues, and behavior in the context of psychological theory and research. Integrates several sub-disciplines of psychology, including physiological, personality, developmental, social, abnormal, and applied psychology. Explores a variety of topics relevant to psychology of women, including theories of women's personality, gender socialization, sex differences, victimization, oppression, and motherhood. Three lecture hours a week for one semester. Only one of the following may be counted: Educational Psychology 354E, 362 (Topic: Psychology of Women), 362 (Topic 10), and Women's and Gender

Studies 345 (Topic: Psychology of Women). Prerequisite: Upper-division standing.

### **EDP 354G. Psychology of the African American Experience.**

Same as African and African Diaspora Studies 352D. Examination of the psychology of people of African descent using an African-centered liberatory model. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352D, 374D (Topic 11), Educational Psychology 354G, 362 (Topic: Psychology of the African-American Experience), 362 (Topic 9: Psychology of the African-American Experience).

### **EDP 354J. Psychology of Race and Racism.**

Same as African and African Diaspora Studies 352C. Review of the history and evolution of the construct of race as a psychological and social phenomenon. Multidisciplinary but primarily social-psychological approach: in addition to readings from psychology, ideas in the areas of anthropology, sociology, and biology will be discussed. Emphasis on theoretical and conceptual approaches toward understanding the psychology of racial thinking. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352C, 372D (Topic 1), Educational Psychology 354J, 362 (Topic 6). Prerequisite: Upper-division standing.

### **EDP 354L. Community Leadership on the College Campus.**

Issues and topics of interest in various areas of college leadership. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Additional prerequisites may vary with the topics.

### **EDP 358D. Emotional and Behavioral Disorders.**

Covers theory and research on several mental disorders with a critical perspective on how social structures and assumptions influence the way they are conceptualized and treated. Three lecture hours a week for one semester. Only one of the following may be counted: Educational Psychology 358D, 363 (Topic 5), 376T (Topic: Emo/Behav Disorders: Youth/Ad). Prerequisite: Upper-division standing and completion of three semester hours of coursework in behavioral sciences.

### **EDP 358F. Educational Neuroscience.**

Explores the interactions between neurobiological processes and education, examining how cognitive neuroscience can inform and guide educational practice, as well as how the impact of the educational experience on brain development and functioning can increase understanding of functional neural systems. Three lecture hours a week for one semester, additional laboratory hours may be arranged. Only one of the following may be counted: Educational Psychology 358F, 369K (Topic: Educational Neuroscience), and 369K, 469K (Topic 10). Prerequisite: Upper-division standing and completion of six semester hours of upper-division coursework in behavioral sciences.

### **EDP 371. Introduction to Statistics.**

Measures of central tendency and variability; correlation and regression; probability and statistical inference; analysis of variance; nonparametric statistics. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Only one of the following may be counted: Educational Psychology 371, Mathematics 316, Statistics 309, 309H and Statistics and Data Science 301.

### **EDP 176T, 276T, 376T, 476T. Topics in Educational Psychology.**

Issues, research, and topics of contemporary interest in various areas of educational psychology and the behavioral sciences. For each semester hour of credit earned, one lecture hour a week for one semester; additional laboratory hours may be arranged for some topics. May be

repeated for credit when the topics vary. Prerequisite: Prerequisites may vary with the topic.

**Topic 3: Disability and Culture in Education.** Examination of the culture of disability in the educational context. Explores language and terminology around disability; history of ableism (discrimination/prejudice), the role of accommodations and access in defining disability and inclusion, perceptions of disability over time, identity development for individuals with a disability, diversity and difference of language within disability groups.

**Topic 5: Documentary Film and Inquiry: Honors.** Focus on student creation of short video documentaries on their chosen topics.

Documentary projects will also be the vehicle for exploring methodological issues in relation to qualitative methods and the use of media as a tool. Covers elements that make documentaries effective as a means for communicating ideas and issues.

Educational Psychology 376T (Topic 5) and 369K (Topic: Documentary Film & Inquiry) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 9: Pediatric Psychology and Health Disparities.** Examine the biological, psychological, and social foundations of pediatric conditions, as well as lifespan health conditions related to development in childhood. Explore pediatric health disparities, the intersection of psychology and public health, research methods used in the field of pediatric psychology, and assessment and intervention with children and families. Educational Psychology 376T (Topic 7) and 376T (Topic 9) may not both be counted. Additional prerequisite: Upper-division standing and six semester credit hours of coursework in behavioral sciences is recommended.

### EDP 379L. Research in Educational Psychology.

Supervised research experience in educational psychology. Individual Instruction. May be repeated for credit. Prerequisite: Upper-division standing, completion of twelve semester hours of upper-division coursework in behavioral sciences, and consent of instructor.

## Graduate Courses

### EDP 380C, 480C. Quantitative Methods.

Theory, models, methods, and applications of quantitative methods used in applied research. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Educational Psychology 380C, 480C and 182K, 282K, 382K, 482K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the adviser in the student's area of specialization; additional prerequisites vary with the topic.

**Topic 2: Fundamental Statistics.** Introductory course designed for students in the fields of education and the social, behavioral, and health sciences who expect to take a second course in statistics. Subjects include descriptive and inferential statistics; sampling distributions; hypothesis testing; correlation; linear prediction; tests of mean differences; tests of frequencies and proportions; and one-way analysis of variance. Educational Psychology 380C (Topic 2) and 180E (Topic 1), 280E (Topic 1), 380E (Topic 1) may not both be counted.

**Topic 4: Correlation and Regression Methods.** Examines tests of association; multiple regression, including multiple predictors of a single interval-scaled outcome; and related subjects such as regression models for mediation and moderation. Educational Psychology 380C, 480C (Topic 4) and Educational Psychology 182K, 282K, 382K, 482K (Topic 2) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 2), and EDP 380C (Topic 6) or EDP 480C (Topic 6), or consent of instructor.

**Topic 6: Statistical Analysis for Experimental Data.** Subjects include hypothesis tests and data analysis procedures for a variety of

experimental designs, including one-way analysis of variance; factorial analysis of variance; analysis of covariance; and repeated measures designs. Instruction in the use of statistical software is provided.

Additional hours to be arranged. Educational Psychology 380C (Topic 6) and 182K (Topic 1: Experimental Design and Statistical Inference), 282K (Topic 1: Experimental Design and Statistical Inference), 382K (Topic 1: Experimental Design and Statistical Inference), or 482K (Topic 1: Experimental Design and Statistical Inference) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 2), (or 180E (Topic 1), 280E (Topic 1), 380E (Topic 1), or consent of instructor.

**Topic 8: Data Analysis Using SAS.** Creating and modifying Statistical Analysis Systems (SAS) data sets using Data Step programming; managing a system of SAS data sets; and invoking SAS procedures using the PROC Step. Educational Psychology 380C (Topic 8) and 184 (Topic 6), 284 (Topic 6), or 384 (Topic 6), may not both be counted. Additional prerequisite: Educational Psychology 380C Topic 6 (Statistical Analysis for Experimental Data), (or 182K (Topic 1: Experimental Design and Statistical Inference), 282K (Topic 1: Experimental Design and Statistical Inference), 382K (Topic 1: Experimental Design and Statistical Inference), 482K (Topic 1: Experimental Design and Statistical Inference)), or consent of instructor.

**Topic 10: Factor Analysis.** Exploratory and confirmatory factor analysis models; elementary matrix algebra; basic formulae for common factor analysis and principal components analysis; factor extraction methods; rotation models; criteria for analytical orthogonal and oblique rotation; interpretation of factors; calculation of factor scores; use of computer programs; and tests of model fit. Educational Psychology 380C (Topic 10) and 182K (Topic 3), 282K (Topic 3), 382K (Topic 3), 482K (Topic 3) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 4) (or 182K (Topic 2), 282K (Topic 2), 382K (Topic 2), 482K (Topic 2)) and 380D (Topic 4) (or 180P (Topic 2), 280P (Topic 2), 380P (Topic 2), 480P (Topic 2)), or consent of instructor.

**Topic 12: Survey of Multivariate Methods.** Fundamentals of vector and matrix algebra; multivariate analysis of variance; principal components analysis and exploratory factor analysis; discriminant analysis; and logistic regression. Educational Psychology 380C (Topic 12) and Educational Psychology 182K (Topic 4), 282K (Topic 4), 382K (Topic 4), 482K (Topic 4) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 4) (or 182K (Topic 2), 282K (Topic 2), 382K (Topic 2), 482K (Topic 2)) and Educational Psychology 380C (Topic 6) (or 182K (Topic 1: Experimental Design and Statistical Inference), 282K (Topic 1: Experimental Design and Statistical Inference), 382K (Topic 1: Experimental Design and Statistical Inference), 482K (Topic 1: Experimental Design and Statistical Inference)), or consent of instructor.

**Topic 14: Structural Equation Modeling.** Provides the basic theoretical background necessary for the application of structural equation modeling to research problems including model specification, identification, path analysis, estimation, testing fit, respecification, confirmatory factor analysis, and issues concerning the interpretation of structural equation models. Educational Psychology 380C (Topic 14) and 182K (Topic 6), 282K (Topic 6), 382K (Topic 6), 482K (Topic 6) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 12), (or 182K (Topic 4), 282K (Topic 4), 382K (Topic 4), 482K (Topic 4)), or consent of instructor.

**Topic 16: Hierarchical Linear Modeling.** Introduction to the basic concepts and applications of hierarchical linear models. Subjects include applications in contextual analysis, growth curve modeling, meta-analysis, and multilevel models for dichotomous outcomes. Educational Psychology 380C (Topic 16) and 184 (Topic 16), 284 (Topic 16), 384 (Topic 16) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 4) (or 182K (Topic

2), 282K (Topic 2), 382K (Topic 2), 482K (Topic 2)); and 380C (Topic 6) (or 184 (Topic 6: Data Analysis Using SAS), 284 (Topic 6: Data Analysis Using SAS), 384 (Topic 6: Data Analysis Using SAS)); or consent of instructor.

**Topic 18: Applied Bayesian Analysis.** Practical introduction to Bayesian statistical inference with an emphasis on applications in behavioral and measurement research. Subjects include the conceptual differences between Bayesian and classical statistical inference and the differences between these approaches in the context of statistical procedures. Educational Psychology 380C (Topic 18) and 182K (Topic 10), 282K (Topic 10), 382K (Topic 10), 482K (Topic 10) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 4) (or 182K (Topic 2), 282K (Topic 2), 382K (Topic 2), 482K (Topic 2)); and 380C (Topic 6) (or 182K (Topic 1: Experimental Design and Statistical Inference), 282K (Topic 1: Experimental Design and Statistical Inference), 382K (Topic 1: Experimental Design and Statistical Inference), 482K (Topic 1: Experimental Design and Statistical Inference)); or consent of instructor.

**Topic 20: Data Analysis and Simulation in R.** Introduces the R language and statistical computing environment, with a focus on using R for real-life empirical data analysis projects and simulation studies. Subjects include reading in, cleaning, merging, and re-shaping data; creating information-dense graphics; running and using the results of regressions and other statistical models; reproducible data analysis; the logic and design of statistical simulation. Additional prerequisite: Educational Psychology 380C (Topic 6) (or 182K (Topic 1: Experimental Design and Statistical Inference), 282K (Topic 1: Experimental Design and Statistical Inference), 382K (Topic 1: Experimental Design and Statistical Inference), 482K (Topic 1: Experimental Design and Statistical Inference)), or consent of instructor.

**Topic 22: Analysis of Categorical Data.** Introduces basic concepts, common statistical models, and analysis methods for categorical data. Provides theory and examples of applications using categorical techniques. Subjects include inference methods for contingency tables, generalized linear models for binary and count data, logistic regression models, multcategory logit models, loglinear models for contingency tables, and models for matched pairs. Educational Psychology 380C, 480C (Topic 22) and 182K, 282K, 382K, 482K (Topic 5) may not both be counted. Additional prerequisite: Educational Psychology 380C, 480C (Topic 4) and 380C, 480C (Topic 6); or consent of instructor.

**Topic 23: Missing Data Analysis.** An overview of the problem of missing data that is common to social science research. Subjects include patterns and mechanisms of missing data, conventional and modern missing data treatments, including maximum likelihood and multiple imputation, and reporting results from a missing data analysis. Missing data treatments are applied to various statistical models, such as multiple regression and factor analysis. Statistical software applications are included. Additional prerequisite: Educational Psychology 380C (Topic 12), (or 182K (Topic 4), 282K (Topic 4), 382K (Topic 4), 482K (Topic 4)), or consent of instructor.

### EDP 380D. Psychometrics.

Theory, models, methods, and applications in psychometrics and program evaluation. Three lecture hours a week for one semester. Educational Psychology 380D and 180P, 280P, 380P, 480P may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the adviser in the student's area of specialization.

**Topic 2: Measurement and Evaluation.** A basic background in measurement and evaluation is necessary to be appropriately critical of tests and instruments that are used in educational and

psychological measurement situations. Subjects include general principles and basic concepts; types of reliability and validity; and the use of psychometric principles in various testing areas, such as intelligence testing; special aptitudes and abilities; educational achievement; and non-cognitive characteristics. Educational Psychology 380D (Topic 2) and 180P (Topic 1), 280P (Topic 1), 380P (Topic 1), 480P (Topic 1) may not both be counted. Additional prerequisite: Twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences.

**Topic 4: Psychometric Theory and Methods.** Addresses major approaches to analyzing responses to test items for making inferences about characteristics of examinees and items. Subjects include mental test theory and methods (e.g., the classical true-score model, item response theory models, and test construction methods); an introduction to factor analysis; and psychological scaling theory and procedures. Educational Psychology 380D (Topic 4) and 180P, 280P, 380P, 480P (Topic 2) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 2) (or 180E, 280E, 380E (Topic 1)) and Educational Psychology 380D (Topic 2) (or 180P, 280P, 380P, 480P (Topic 1)), or consent of instructor.

**Topic 6: Program Evaluation Models and Techniques.** Subjects include background and theory (including classical test theory, objectivity in mental measurement, dichotomous and polytomous models, conventional item analysis versus the item response theory approach, item parameter and ability estimation, and information functions), and applications (including relative efficiency of tests, flexilevel and two-stage tests, computerized adaptive tests and mastery tests, test equating, differential item functioning, and attitude and personality measurement). Educational Psychology 380D (Topic 6) and 180P (Topic 4: Evaluation Models and Techniques), 280P (Topic 4: Evaluation Models and Techniques), 380P (Topic 4: Evaluation Models and Techniques), 480P (Topic 4: Evaluation Models and Techniques) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 2) (or 180E (Topic 1), 280E (Topic 1), 380E (Topic 1), 480E (Topic 1)), or consent of instructor.

**Topic 8: Item Response Theory.** Subjects include background and theory (including classical test theory, objectivity in mental measurement, dichotomous and polytomous models, conventional item analysis versus the item response theory approach, item parameter and ability estimation, and information functions), and applications (including relative efficiency of tests, flexilevel and two-stage tests, computerized adaptive tests and mastery tests, test equating, differential item functioning, and attitude and personality measurement). Educational Psychology 380D (Topic 8) and 180P (Topic 6), 280P (Topic 6), 380P (Topic 6), 480P (Topic 6) may not both be counted. Additional prerequisite: Educational Psychology 380D (Topic 4) (or 180P (Topic 2), 280P (Topic 2), 380P (Topic 2), 480P (Topic 2)), or consent of instructor.

**Topic 10: Test and Scale Construction.** Design of effective instruments and cognitive tests; facet theory for scale construction; measurement of opinions and beliefs; tryout of experimental forms and item analysis; use of factor analysis and multidimensional scaling; norms and scaled scores; reliability and validity assessment; and test equating methods. Educational Psychology 380D (Topic 10) and Educational Psychology 180P (Topic 8), 280P (Topic 8), 380P (Topic 8), 480P (Topic 8) may not both be counted. Additional prerequisite: Educational Psychology 380D (Topic 4), (or Educational Psychology 180P (Topic 2), 280P (Topic 2), 380P (Topic 2), 480P (Topic 2)), or consent of instructor.

**Topic 11: Computer Adaptive Testing.** In-depth examination of computer adaptive testing (CAT) methodologies based on Item Response Theory (IRT) models. Subjects include optimal test design principles; estimation of person parameters; item banking techniques; components of fully-adaptive and multi-stage testing algorithms; and issues concerning reliability, validity, item exposure, and score

reporting. Only one of the following may be counted: Educational Psychology 380D (Topic 11), 380D (Topic 12), 380P (Topic 13). Additional prerequisite: Educational Psychology 380D (Topic 8) or consent of instructor.

**Topic 14: Applied Psychometrics.** In-depth examination of applied psychometric techniques. Subjects include equating scores; setting standards; detecting differential item functioning and selection, placement, and classification. Educational Psychology 380D (Topic 14) and Educational Psychology 180P (Topic 14), 280P (Topic 14), 380P (Topic 14), 480P (Topic 14) may not both be counted. Additional prerequisite: Educational Psychology 380D (Topic 4) (or 180P (Topic 2), 280P (Topic 2), 380P (Topic 2), 480P (Topic 2)), or consent of instructor.

**Topic 16: Advanced Psychometrics Seminar.** Discussion of emerging technical subjects in the areas of psychometrics, measurement, and educational statistics. Addresses advanced techniques for analyzing item response data, and studying characteristics of tests/assessment instruments, using available computer software. Educational Psychology 380D (Topic 16) and 180P, 280P, 380P, 480P (Topic 9) may not both be counted. Additional prerequisite: Educational Psychology 380D (Topic 4) (or 180P, 280P, 380P, 480P (Topic 2)), or consent of instructor.

**Topic 18: Advanced Psychometrics Research.** Educational Psychology 380D (Topic 18) and 180P (Topic 15), 280P (Topic 15), 380P (Topic 15), 480P (Topic 15) may not both be counted. Additional prerequisite: Educational Psychology 380D (Topic 4) (or 180P (Topic 2), 280P (Topic 2), 380P (Topic 2), 480P (Topic 2)), or consent of instructor.

### **EDP 380Q. Practicum in Psychometrics.**

Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only.

### **EDP 381C. Research Methodology.**

Theories and models for educational and psychological research. Three lecture hours a week for one semester. Educational Psychology 381C and 184, 284, 384 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education or behavioral science, including an adequate background in statistics; and consent of the adviser in the student's area of specialization.

#### **Topic 2: Research Design and Methods for Psychology and Education.**

Overview of research designs and methods used in behavioral sciences. Subjects include the philosophy of science, issues of validity and reliability, sampling, descriptive research, experimental and quasi-experimental designs, and qualitative research. Educational Psychology 381C (Topic 2) and 184, 284, 384 (Topic 24) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 4) (or 182K, 282K, 382K, 482K (Topic 2)), or consent of instructor.

**Topic 4: Research Methodology for Practitioners.** Designed to facilitate understanding of research methods and statistical analysis. Overviews development of needs assessment, program evaluation, and program modifications. Facilitates skills in critically evaluating research to select evidence-based approaches for practice settings. Educational Psychology 381C (Topic 4) and 184, 284, 384 (Topic 20) may not both be counted.

**Topic 6: Literature and Research Synthesis.** Focuses on the creation of a literature review or systematic research synthesis. Subjects to be covered include: problem formation; how research is communicated and how the scientific communication system affects knowledge; methods for locating research; problems in retrieving data from secondary sources; judging the quality of research; estimating the impact of policies and practices and gauging the strength of relations; and assessing variance in impacts and relationships across studies.

Educational Psychology 381C (Topic 6) and 184, 284, 384 (Topic 22) may not both be counted.

**Topic 8: Qualitative Research Methods.** Examines research methods that are descriptive, field-based, interpretive, and discovery-focused. Subjects include the varieties of qualitative research; identifying questions and phenomena for research; planning and conducting qualitative research; coding and other analytic procedures; developing an interpretation; and trustworthiness issues in qualitative inquiry. Educational Psychology 381C (Topic 8) and 184, 284, 384 (Topic 8) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 2) (or 180E, 280E, 380E (Topic 1)), or consent of instructor.

**Topic 10: Issues in Multicultural Research.** Designed to provide knowledge and tools to critique and evaluate theoretical, conceptual, and methodological issues related to the role and importance of culture, ethnicity, and race in multicultural research. Draws from social, developmental, counseling, and clinical psychology research, and emphasizes the challenges in conducting rigorous, culturally sound research. Educational Psychology 381C (Topic 10) and 184, 284, 384 (Topic 17) may not both be counted.

**Topic 12: Meta-analysis.** Effect size calculation for different designs; quantitative methods and models for synthesizing and testing moderators of effect size; and related subject matter. Three lecture hours per week with additional hours to be arranged. Educational Psychology 381C (Topic 12) and 184, 284, 384 (Topic 7) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 4) (or 182K, 282K, 382K, 482K (Topic 2)) and Educational Psychology 380C (Topic 6) or consent of instructor.

**Topic 14: Causal Inference.** Survey of quantitative methods for studying causal effect of interventions, with emphasis on data analysis and interpretation. Subjects include potential outcomes models, graphical models, randomized experiments, propensity scores, matching and weighting, instrumental variables, interrupted time series, regression discontinuities, and mediation models. Educational Psychology 381C (Topic 14) and 184, 284, 384 (Topic 25) may not both be counted. Additional prerequisite: Educational Psychology 381C (Topic 2) (or 184, 284, 384 (Topic 24)).

**Topic 16: Survey Research Design.** Overview of the survey research process; addresses various topics in survey research within the context of the development of a survey study. Covers sequence of a survey study, from conceptualization to measurement, administration, data management and analysis, and writing the research report. Issues in quasi-experimental design, sampling, questionnaire construction, administration, and the use of computers in survey research are covered within this framework. The relative advantages, disadvantages, and appropriateness of the different modes of survey administration (i.e., face-to-face interviews, telephone interviews, mail, internet surveys, and other self-administered questionnaires) for different research questions are also examined. Educational Psychology 381C (Topic 16) and 184, 284, 384 (Topic 7) may not both be counted. Additional prerequisite: Educational Psychology 380C (Topic 2) or consent of instructor.

### **EDP 381D. Advanced Statistical Modeling.**

Advanced course intended for doctoral students specializing in quantitative methods. Subject matter includes extensions of basic two- and three-level multilevel models and of structural equation models; simulation study design; and related subjects. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing; Educational Psychology 380C (Topic 14) (or Educational Psychology 182K (Topic 6), 282K (Topic 6), 382K (Topic 6), 482K (Topic 6)) and 380C (Topic 16) (or 184 (Topic 16), 284 (Topic 16), 384 (Topic 16)), or consent of instructor.

### **EDP 381E. Advanced Item Response Theory.**

Advanced course intended for doctoral students specializing in quantitative methods. Subjects include extensions of Item Response Theory (IRT) models, including multidimensional IRT and Testlet Response Theory, explanatory item response modeling, IRT rater models, cognitive diagnostic IRT models, response time models, and related subjects. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing; Educational Psychology 380C (Topic 16) (or 184 (Topic 16), 284 (Topic 16), 384 (Topic 16) and 380D (Topic 8) (or 180P (Topic 17), 280P (Topic 17), 380P (Topic 17), 480P (Topic 17)), or consent of instructor.

### **EDP 381S. Practicum in Program Evaluation.**

Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only.

### **EDP 382C. Social Psychology and Behavioral Sciences in Education.**

Examination of issues, theories, and research in selected areas of social psychology and other behavioral sciences that have implications for education. Social psychology is the study of how individuals are influenced by others. Behavioral sciences examines the interaction of cognitive processes and social environment, including social relationships. Three lecture hours a week for one semester. Educational Psychology 381M and 382C may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate Standing.

**Topic 2: Social Psychology.** Basic theories and methods of social psychology. Subjects include models of agency, self-deception, social comparison theory, positivity biases, accuracy in self-knowledge, diversity, loose versus tight cultures, sibling status, family relations, and family resources. Educational Psychology 381M (Topic 2) and 382C (Topic 2) may not both be counted.

**Topic 4: Families and Education in Three Cultures.** Covers intersection of families and education in the cultures of China, Japan, and the U.S., from pre-school through higher education; content is situated within the discipline of psychology. Educational Psychology 381M (Topic 6) and 382C (Topic 4) may not both be counted.

**Topic 6: Psychology of Race, Prejudice, and Stereotypes.** Studies the history and evolution of race, prejudice, and stereotyping from a social psychological perspective. Focuses on understanding the psychology of racial attitudes, prejudice, and stereotyping. Includes related ideas from the areas of anthropology, sociology, and biology. Educational Psychology 381M (Topic 12) and 382C (Topic 6) may not both be counted.

### **EDP 382D. Learning and Motivation.**

History and systems of psychology applied to education; modern theories and current research in learning and human motivation, especially in relation to new educational media and to the educative process. Three lecture hours a week for one semester. Educational Psychology 382D and 382L may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in educational psychology and/or psychology; and consent of the adviser in the student's area of specialization.

**Topic 2: History and Systems of Psychology.** Overview of the major theoretical frameworks in psychology and its antecedents as a scientific field. Includes discussion of influential ideas, the people behind them, and their historical contexts. Special focus is on particular psychology paradigm characteristics of certain periods in history. Additional emphasis is placed on the research methodologies that accompany each paradigm, and on building communication skills

and co-constructing understanding through class discussions, oral presentations, and analytical writing. Educational Psychology 382D (Topic 2) and 382L (Topic 17) may not both be counted.

**Topic 4: Psychology of Learning.** Examination of the current literature on how people learn, the factors that influence the acquisition of knowledge, and on the philosophical frameworks that have characterized views of the learning process. Educational Psychology 382D (Topic 4) and 382L (Topic 1) may not both be counted.

**Topic 6: Motivation and Emotion.** Overview of human motivation and emotion from a psychological perspective. Examination of classical and contemporary theories to understand the nature, predictors, functions, and consequences of motivation and emotion. Review of basic theories of motivation and emotion in application to educational issues. Educational Psychology 382D (Topic 6) and 382L (Topic 2) may not both be counted.

**Topic 8: Instructional Psychology.** Translating the theories and research on human learning and motivation into practice for educational psychology students through designing instruction to meet the needs of a range of audiences and instructional situations. Emphasis is placed on communicating how various learning and motivation theories get translated into design theories and instructional practice, and how a given instructional practice might be based in theory. Educational Psychology 382D (Topic 8) and 382L (Topic 3) may not both be counted.

**Topic 10: Complex Cognitive Processes in Education.** Higher-order thinking broadly conceptualized with attention to such processes as memory, transfer of learning, conceptual change, analogical reasoning, and inference.

**Topic 12: Psycholinguistics.** Examination of the intersection of language and thought from a sociolinguistic perspective. Includes readings from the latest work on models of cognition and language, first language acquisition, conversation and oral discourse use, reading comprehension, and writing processes. Educational Psychology 382D (Topic 12) and 382L (Topic 5) may not both be counted.

**Topic 14: Psychology of Teachers and Teaching.** Examination of research and theory pertaining to the effects of teaching on students' learning and motivation at various levels of education in order to identify key trends and findings and use those ideas in supporting instructional improvement. Discussion of research and theory on what knowledge, skills, attitudes, and beliefs are characteristic of an effective teacher at various levels and how teachers develop those skills and attitudes. Attention is given to how research in this area is conducted. Educational Psychology 182 (Topic 5), 282 (Topic 5), 382 (Topic 5) and 382D (Topic 14) may not both be counted.

**Topic 16: Research on Discourse Practices.** Considers the current research and thinking about how individuals use language in human interaction, how writing and reading processes are multidimensional and socially situated, and how new forms of discourse arise in social interactions. Educational Psychology 382D (Topic 16) and 382L (Topic 19) may not both be counted.

**Topic 20: Current Issues in Motivation.** Discuss advanced issues and debates in motivation research: motivational interventions, methodological innovations, the roles of culture and context, and current theoretical debates in the field. Educational Psychology 382D (Topic 20) and 382L (Topic 20) may not both be counted.

**Topic 22: Current Issues in Learning.**

### **EDP 382E. Biological Basis of Behavior and Learning.**

An investigation of how the biological processes influence behavior, as well as how biological, social, and psychological factors influence health, illness, and learning. Three lecture hours a week for one semester. Educational Psychology 382E and 383 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division

coursework in educational psychology and/or psychology; and consent of the adviser in the student's area of specialization.

**Topic 2: Biological Basis of Behavior.** Provides an overview of brain structure and function and the brain bases of behavior and disorders of behavior. Focus is on the structure of the nervous system, with a primary emphasis on the functional organization of the brain, and the mechanisms underlying neural communication, followed by a review of various functional systems of the brain and clinical disorders known to be associated with dysfunction of these systems. Only one of the following may be counted: Educational Psychology 382E (Topic 2), 382L (Topic 9), 383 (Topic 1).

**Topic 4: Biological Basis of Personality.**

**Topic 6: Educational Neuroscience.** Explores the interactions between neurobiological processes and learning, examining how cognitive neuroscience can inform and guide educational practice, as well as how the impact of the educational experience on brain development and functioning can increase our understanding of functional neural systems. Educational Psychology 182 (Topic 13), 282 (Topic 13), 382 (Topic 13) and 382E (Topic 6) may not both be counted.

**Topic 8: Introduction to Biomedical Issues in Autism.** Only one of the following may be counted: Educational Psychology 383 (Topic 2), 382E (Topic 8), 385 (Topic 11).

**Topic 10: Child and Adolescent Psychopharmacology, Health, and Learning.** Educational Psychology 382E (Topic 10) and 382L (Topic 18) may not both be counted.

**Topic 11: Pediatric Psychology and Health Disparities.** Focus on current research and practice in pediatric psychology, including the biological, psychological, and social foundations of pediatric conditions, as well as lifespan health conditions related to development in childhood. Explore general principles of pediatric psychology, pediatric health disparities, and disease-specific issues (e.g. cancer, asthma, diabetes, obesity), including developmental processes of risk and resilience and prevention and intervention for these conditions. Only one of the following may be counted: Educational Psychology 382E (Topic 11), 382E (Topic 12), 397 (Topic 6).

**Topic 14: Health Psychology.**

**Topic 16: Human Brain Imaging.** Provides a foundation in the brain imaging basics necessary to enable neuropsychologists to more competently interpret and use brain imaging information in clinical practice, as well as an understanding of what brain imaging can and cannot provide to clinicians. Builds on a basic clinical and anatomical foundation and progresses to more technical knowledge regarding specific brain imaging techniques, ultimately reviewing the application of brain imaging within a variety of traumatic and non-traumatic clinical contexts. Educational Psychology 382E (Topic: Human Brain Imaging) and 382E (Topic 16) may not both be counted.

### **EDP 382F. Human Development.**

Theories of development and the educative process. Three lecture hours a week for one semester. Educational Psychology 382F and 385 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences or consent of instructor, and consent of the adviser in the student's area of specialization.

**Topic 3: Life Span Development.** Examine human development from birth to death. Explore theories and empirical research across domains including social, emotional, identity, and cognitive. Discuss the roles of gender, socio-economic status, culture, race, ethnicity, and sexual orientation in human development and aging across multiple settings. Only one of the following may be counted: Educational Psychology 382F (Topic 2), 382F (Topic 3), 385 (Topic 1).

**Topic 4: Child and Adolescent Social, Emotional, and Cognitive Development.** Overview of the current state of empirical knowledge in the field of child development. Introduction to key topics relating to each of the major periods of human growth beginning with infancy. Focus is on the main theoretical frameworks and controversies within which knowledge is constructed in this field. Additional emphasis is on what these diverse approaches propose, and on critical evaluation of child development theory and research. Builds skills in communicating and co-constructing understanding through class discussions, oral presentations, and analytical writing. Educational Psychology 382F (Topic 4) and 385 (Topic 2) may not both be counted.

**Topic 6: Culture, Child Development, and Education.** Advanced graduate seminar that examines current theory and research from the psychology, anthropology, and sociology fields on the roles of culture, ethnicity, and race in the development and education of children around the world. In-depth discussion subjects include parenting and socialization; cognitive, social, and emotional development; the effects of socioeconomic status; culture change and acculturation; and racism and critical race theory. Educational Psychology 382F (Topic 6) and 391 (Topic 1), 691 (Topic 1) may not both be counted.

**Topic 8: Adolescent Psychosocial Development.** Examination and application of psychological research and theoretical frameworks that inform adolescent (ages twelve to nineteen) psychological, social, and identity development. Explores the social, cultural, and historical contexts that promote or impair resiliency in adolescents. Educational Psychology 382F (Topic 8) and 385 (Topic 12) may not both be counted.

**Topic 10: Mindfulness, Compassion, and the Self.** Research and theory related to the concept of the "self" from both Eastern and Western philosophical perspectives, and on the evidence for mental and physical health benefits of mindfulness, compassion for others, and self-compassion. Educational Psychology 382F (Topic 10) and 386N (Topic 13) may not both be counted.

**Topic 12: Dysfunction in Human Behavior/Social Organizations.** Designed to provide an overview of the development of human dysfunction using both psychological and cultural perspectives. Includes a review of personality development as well as the societal dynamics associated with dysfunctional behavior.

### **EDP 382G. Cultural Diversity and Individual Differences.**

Theory and research on cultural diversity and individual differences as factors in psychology and education. Three lecture hours a week for one semester. Educational Psychology 381, 481 and 382G may not both be counted unless the topics vary. Educational Psychology 382G and 189H, 289H, 389H, 489H may not both be counted unless the topics vary. Educational Psychology 382G and 385 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

**Topic 2: Latino/a Psychology.** United States Latino/a experiences, issues, and behavior in the context of psychological theory and research; including, but not limited to, Mexican Americans, Puerto Ricans, Dominicans, Cubans, Central, and South Americans. Integrates sub-disciplines of psychology and explores a variety of subjects relevant to the psychology of Latinos/as, including: race; ethnicity; culture; immigration; acculturation; identity; language; sexuality and sexual orientation; racial and gender socialization; racism, colonization, and colorism; oppression; and health disparities. Educational Psychology 381 (Topic 38), 481 (Topic 38) and 382G (Topic 2) may not both be counted.

**Topic 4: Psychology of Women and Gender.** Study of women's experiences, issues, and behavior in the context of psychological theory and research. Integrates many sub-disciplines of psychology and explores a variety of subjects relevant to the psychology of women, including sexuality, gender socialization, sex differences,

victimization, oppression, and motherhood. Educational Psychology 381 (Topic 12), 481 (Topic 12) and 382G (Topic 4) may not both be counted.

**Topic 6: African American Psychology.** Educational Psychology 382G (Topic 6) and 385 (Topic 13) may not both be counted.

**Topic 8: Educational Disabilities in Schools.** Educational Psychology 382G (Topic 8) and 189H (Topic 20), 289H (Topic 20), 389H (Topic 20), 489H (Topic 20) may not both be counted.

**Topic 10: Disability and Culture in Education.** Examine the culture of disability in the educational context. Explore language and terminology around disability, the history of ableism (discrimination/prejudice), the role of accommodations and access in defining disability and inclusion, perceptions of disability over time, identity development for individuals with a disability, diversity and difference of language within disability groups. Educational Psychology 382G (Topic 10) and 382G (Topic: Disability/Culture in Educn) may not both be counted.

### **EDP 382Q. Research Practicum in Human Development, Culture, and Learning Sciences.**

Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only.

### **EDP 383C, 483C. Assessment and Diagnosis.**

Advanced study of theory, issues, and application of methods of measurement and diagnostic systems. Topics include techniques to estimate individual and group differences as these inform learning and behavior in educational and community settings. For 383C, three lecture hours a week for one semester. For 483C, three lecture hours and one-and-one-half laboratory hours a week for one semester. Educational Psychology 180P, 280P, 380P, 480P and 383C may not both be counted unless the topics vary. Educational Psychology 381, 481 and 383C may not both be counted unless the topics vary. Educational Psychology 383C and 189H, 289H, 389H, 489H may not both be counted unless the topics vary. Educational Psychology 383C and 397 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**Topic 2: Overview of Psychoeducational Assessment.** Reviews the principles and concepts underlying assessment and appraisal of aptitudes, achievement, personality, behavioral and emotional regulation. Reviews standardized testing procedures, as well as checklists, clinical interviewing and projective measures. Develops literacy skills for reviewing test reports and implementing recommendations from assessment reports. Offered on the letter-grade basis only.

**Topic 4: Individual Testing.** Focuses on the selection, administration, scoring, and interpretation (oral and written) of commonly administered individual tests of intelligence for children and adolescents. Educational Psychology 180P, 280P, 380P, 480P (Topic 3) and 383C, 483C (Topic 4) may not both be counted. Offered on the letter-grade basis only.

**Topic 6: Academic Assessment and Intervention.** Application of theory and research along with psychometric knowledge to the assessment of academic skills, with the intent of using this and other (e.g., cognitive) data to help develop meaningful interventions for children and youth in academic settings. Educational Psychology 383C, 483C (Topic 6) and 189H, 289H, 389H, 489H (Topic 2) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Educational Psychology 383C (Topic 4) or 483C (Topic 4)

**Topic 8: Social and Emotional Assessment with Children and Adolescents.** Focus on developing knowledge and skills in evidence-based social/emotional assessment, including conducting and interpreting evidence-based assessments of children's social,

emotional, and behavioral functioning, and the diagnosis of mental health disorders in youth. Educational Psychology 383C (Topic 8) and 189H, 289H, 389H, 489H (Topic 21) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Educational Psychology 383C (Topic 28) (or 397 (Topic 2: Child Psychopathology)) or the equivalent; students in areas other than school psychology must also have consent of instructor.

**Topic 10: Bilingual Assessment.** Focuses on theoretical and practical considerations in assessing the cognitive, language, academic, and psychosocial functioning of bilingual youth. Educational Psychology 383C (Topic 10) and 189H, 289H, 389H, 489H (Topic 19: Cognitive-Behavioral Assessment and Intervention) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: For non-school psychology students, consent of instructor.

**Topic 12: Assessment in Counseling.** Introduction to the fundamentals of objective assessment, with emphasis on cultural and ethical considerations. Review of assessment techniques includes diagnostic interviewing, intelligence testing, achievement testing, objective personality testing, interpretation of assessment data, writing integrated reports, providing feedback, and making appropriate referrals. First course of a two-part sequence in psychological assessment; the second course in the sequence is Educational Psychology 383C (Topic 14). Educational Psychology 381 (Topic 6), 481 (Topic 6) and 383C (Topic 12) may not both be counted. Offered on the letter-grade basis only.

**Topic 14: Rorschach and Thematic Apperception Test Interpretation.** Second part of a two-course sequence in psychological assessment; continuation of Educational Psychology 383C (Topic 12). Educational Psychology 381 (Topic 10), 481 (Topic 10) and 383C (Topic 14) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Educational Psychology 383C (Topic 12) (or 381 (Topic 6), 481 (Topic 6)); for students outside of counseling psychology, Educational Psychology 383C (Topic 12) (or 381 (Topic 6), 481 (Topic 6)) and consent of instructor.

**Topic 16: Introduction to Neuropsychological Assessment.** Introduction to neuropsychological theory; covers the major functional domains typically assessed by neuropsychologists. Subjects include assessment across the lifespan, various disorders that neuropsychologists commonly encounter and their impact on neuropsychological test performance, and commonly used neuropsychological instruments. Educational Psychology 383C, 483C (Topic 16) and 189H, 289H, 389H, 489H (Topic 7: Neuropsychological Assessment) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Educational Psychology 382E (Topic 2) or equivalent and 383C (Topic 4) or 483C (Topic 4) or equivalent, or consent of instructor.

**Topic 18: Advanced Neuropsychological Assessment.** Educational Psychology 383C (Topic 18) and 189H (Topic 8), 289H (Topic 8), 389H (Topic 8), 489H (Topic 8) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Educational Psychology 383C (Topic 16) (or 189H (Topic 3: Neuropsychological Assessment), 289H (Topic 3: Neuropsychological Assessment), 389H (Topic 3: Neuropsychological Assessment), 489H (Topic 3: Neuropsychological Assessment)).

**Topic 30: Developmental Psychopathology.** Explore the nature, structure, etiology and developmental course of psychopathology through the lifespan. Examine key issues including approaches to the classification of disorders, incidence and prevalence rates, developmental course of disorders, and risk and protective factors. Only one of the following may be counted: Educational Psychology 383C (Topic 26), 383 (Topic 28), 383C (Topic 30), 397 (Topic 1). Offered on the letter-grade basis only.

**Topic 32: Forensic Psychology: Psychological Issues in Legal Contexts.** Designed to familiarize students with various psychological roles and influences in the courtroom, case law as related to

expert testimony, ethical practice in forensic psychology, and with psychological testing and assessment procedures used and considered best practice in various forensic contexts. Educational Psychology 381 (Topic 30), 481 (Topic 30) and 383C (Topic 32) may not both be counted. Offered on the letter-grade basis only.

#### **EDP 383D. Practicum: Level One.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **EDP 383E. Practicum: Level Two.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **EDP 383F. Practicum: Level Three.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing

#### **EDP 384C. Prevention and Intervention.**

Advanced study of theories, processes, and techniques of evidence-based prevention and intervention to enhance learning and behavior in educational and community settings. Three lecture hours a week for one semester. Educational Psychology 381, 481, and 384C may not both be counted unless the topics vary. Educational Psychology 383 and 384C may not both be counted unless the topics vary. Educational Psychology 384C and 189H, 289H, 389H, 489H may not both be counted unless the topics vary. Educational Psychology 384C and 397 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 2: Theories in Counseling.** Theories and research for developing counseling interventions in a pluralistic world. Educational Psychology 381 (Topic 1), 481 (Topic 1), and 384C (Topic 2) may not both be counted.

**Topic 4: School Counseling.** Covers subjects related to the design, implementation, and evaluation of socio-emotional interventions in educational settings. Included is a review of American School Counseling Association Standards, standards of the Texas Education Agency for school counselors, and legislative rules related to school counseling. Educational Psychology 381, 481 (Topic 3: School Counseling) and 384C (Topic 4) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 6: Career Development.** Introduction to the basic principles, models, and methods of career development used in educational settings. Educational Psychology 381, 481 (Topic 4: Career Development) and 384C (Topic 6) may not both be counted.

**Topic 8: Helping and Counseling Skills.** Designed to provide a foundation for the professional practice of counseling and the skills necessary for professional training in counseling and related fields. Studies basic interpersonal helping skills, clinical interviewing, and intervention strategies. Educational Psychology 381, 481 (Topic 8: Counseling Skills and Procedures) and 384C (Topic 8) may not both be counted.

**Topic 9: Approaches to Intervention.** Subjects include ecological prevention methods, psychoeducational prevention activities, and relapse prevention; clinical interventions include crisis intervention and early interventions. Proactive prevention efforts are emphasized.

**Topic 11: Family and Couples Interventions.** Review major family systems theories and practices. Only one of the following may be counted: Educational Psychology 384C (Topic 10), 384C (Topic 11), 384C (Topic 12).

**Topic 14: Addiction Counseling.** Studies biological mechanisms of categories of commonly abused substances and treatment approaches to addiction. Includes discussion of other forms of addiction, including food, sex, and internet, and addiction in diverse populations. Educational Psychology 381 (Topic 24), 481 (Topic 24), and 384C (Topic 14) may not both be counted.

**Topic 18: Multicultural Counseling.** Introduction to cultural diversity and multiculturalism in counseling. Designed to help students understand important cultural issues and various cultural groups. Educational Psychology 381 (Topic 26), 481 (Topic 26), and 384C (Topic 18) may not both be counted.

**Topic 20: Child and Adolescent Counseling Skills and Interventions.** Designed to develop theoretical understanding and counseling skills in working with children and systems to promote development, growth, and achievement. Covers theory, research, and skills useful for conducting counseling, behavioral management, and interventions with children and adolescents. Educational Psychology 381 (Topic 36), 481 (Topic 36), and 384C (Topic 20) may not both be counted.

**Topic 22: Cognitive-Behavioral Therapy with Children and Adolescents.** Explore the theoretical underpinnings, historical context, and modern applications of primarily cognitive aspects of the practice of Cognitive-Behavioral Therapy (CBT) for child and adolescent mental health disorders. Examine the research methodologies used to evaluate CBT, and review the evidence base for CBT for a variety of common child and adolescent mental health disorders. Educational Psychology 384C (Topic 22) and 189H, 289H, 389H, 489H (Topic 9: Cognitive-Behavioral Assessment and Intervention) may not both be counted. Additional prerequisite: Educational Psychology 384C (Topic 36) or consent of instructor.

**Topic 24: Cognitive-Behavioral Therapy with Adults.** Educational Psychology 384C (Topic 24) and 189H, 289H, 389H, 489H (Topic 9: Cognitive-Behavioral Assessment and Intervention) may not both be counted.

**Topic 26: Interpersonal Intervention with Children and Adolescents.** Educational Psychology 384C (Topic 26) and 189H, 289H, 389H, 489H (Topic 3: Interpersonal Intervention with Children and Adolescents) may not both be counted.

**Topic 28: Crisis Intervention in Schools.** Educational Psychology 384C (Topic 28) and 397 (Topic 5: Crisis Intervention in Schools) may not both be counted.

**Topic 30: Psychodynamic Psychotherapy.** Educational Psychology 381, 481 (Topic 28: Psychodynamic Psychotherapy) and 384C (Topic 30) may not both be counted.

**Topic 32: Integrated Behavioral Health.** Focus on integrated behavioral health care for underserved children and their families; develops knowledge and skills in integrated health care service delivery, cultural competence in health services, and family-centered health services. Educational Psychology 383 (Topic 3: Integrated Behavioral Health) and 384C (Topic 32) may not both be counted.

**Topic 34: Prevention Science.** Examines risk and protective influences on development and evidence based interventions that promote well-being across academic, social-emotional, and health domains.

**Topic 36: Fundamentals of Behavioral Theory and Interventions.** Introduction to Behavior Therapy (BT), including history and theoretical underpinnings, core assumptions of BT, and a survey of BT techniques commonly used in practice, with particular emphasis on child and adolescent therapy; explores definition of empirically-supported practice, and evidence base for BTs for children and adolescents in clinics, schools, and other settings. Three lecture hours a week for one semester. Educational Psychology 384C (Topic 36) and 384C (Topic: Fund of Behav Theory/Interven) may not both be counted.

#### **EDP 384D. Group Counseling and Interventions.**

Theory and research in group practice; group functioning and membership; principles of group planning; and development of leadership skills through structured in-class role-playing. Three lecture hours a week for one semester. Educational Psychology 381 (Topic 7), 481 (Topic 7) and 384D may not both be counted. Prerequisite: Graduate standing.

#### **EDP 384N. Practicum in Counselor Education.**

Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

#### **EDP 384Q. Practicum in Counseling.**

Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

#### **EDP 384S. Practicum in Spanish for the Helping Professions.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

#### **EDP 384V. Advanced Practicum.**

Advanced study and practice of theories, processes, and techniques of evidence based prevention and intervention to enhance learning and behavior in educational and community settings. Three lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **EDP 385C. Professional Issues, Leadership, and Development.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**Topic 2: Consultation, Collaboration, and Supervision.** Introduces theoretical, empirical, and applicable knowledge of indirect service models as practiced by school psychologists; specifically, behavioral consultation, collaboration, and supervision. Focus on information and skills involved in providing consultation services to organizations that serve children and adolescents (e.g. schools, hospitals and mental health clinics). Educational Psychology 182, 282, 382 (Topic 1: Consultation Theory and Procedure) and 385C (Topic 2) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Educational Psychology 384C (Topic 36) or equivalent, or instructor consent.

**Topic 3: Advanced Consultation, Collaboration, and Supervision.** Introduction to the research, theory, and practice of professional supervision and consultation. Explore supervisory and consultation issues and theory, and the growing empirical literature on evidence-based practices in supervision and consultation. Educational Psychology 385C (Topic: Advncd Conslt/Collab/Superv) and 385C (Topic 3) may not both be counted. Offered on the letter-grade basis only.

**Topic 5: Professional Orientation and Ethics in Counseling.** Explore an introduction to the ethical codes of the American Psychological Association and the American Counseling Association, as well as the Texas Administrative Codes for licensed psychologists and licensed professional counselors. Review ethical codes and issues in school counseling. Educational Psychology 385C (Topic 4) and 385C (Topic 5) may not both be counted. Offered on the letter-grade basis only.

**Topic 6: Advanced Ethics and Professional Issues in Counseling.** Examines the professional roles and practices for counselors, including records management, an overview of business/family law and professional practice, and the study of current board rules.

Educational Psychology 381 (Topic 22: Professional Issues in Counseling), 481 (Topic 22: Professional Issues in Counseling) and 385C (Topic 6) may not both be counted. Offered on the letter-grade basis only.

**Topic 8: Law, Ethics, and History of School Psychology.** Provides information about the roles of school psychologists/psychologists and the legal and ethical issues that affect their roles. Educational Psychology 385C (Topic 8) and 189H, 289H, 389H, 489H (Topic 1) may not both be counted. Offered on the letter-grade basis only.

**Topic 10: Professional Issues in Counseling Psychology.** Designed to familiarize students with the primary tenets of counseling psychology including the history of counseling, vocational issues; supervision, mentorship, and consultation; cultural diversity in counseling psychology are also emphasized. Educational Psychology 381 (Topic 31), 481 (Topic 31) and 385C (Topic 10) may not both be counted. Offered on the letter-grade basis only.

**Topic 12: Seminar in Academic and Student Affairs in Higher Education.** Designed to cover subjects related to the organization and structure of settings of higher education and strategies for promoting the development of post-secondary students. Educational Psychology 381 (Topic 34), 481 (Topic 34) and 385C (Topic 12) may not both be counted. Offered on the letter-grade basis only.

**Topic 14: School Consultation Theory and Practice.** Examine the research, theory, and practice of professional supervision and consultation. Explore supervisory and consultation issues and theory and the growing empirical literature on evidence-based practices in supervision and consultation; practice clinical supervision. Only one of the following may be counted: Educational Psychology 385C (Topic 3), 385C (Topic 14), 385C (Topic: Advncd Conslt/Collab/Superv). Offered on the letter-grade basis only.

#### **EDP 386Q. Practicum in Post-Secondary Teaching.**

Shadow instructor teaching at the college level, and discuss the various components and decisions made in organizing and teaching, towards a goal of developing a portfolio demonstrating teaching competency. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

#### **EDP 187T, 287T, 387T, 487T, 587T, 687T. Topics in Educational Psychology.**

Explore issues, research, and topics of contemporary interest in various areas of educational psychology and the behavioral sciences. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **EDP 393E. School Psychology Specialist Internship.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

#### **EDP 193N, 393N. Internship in School Psychology.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

#### **EDP 194. Colloquium in Educational Psychology.**

Presentation and discussion of issues related to graduate study in educational psychology, including research proposals and developments in the field, by advanced graduate students, members of the faculty, and visiting lecturers. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the adviser in the student's area of specialization.

**Topic 2: Departmental Colloquium.** Required of all doctoral students in educational psychology. Educational Psychology 194 (Topic 2) and 196 (Topic 1) may not both be counted. Offered on the credit/no credit basis only.

**Topic 4: Doctoral Research Colloquium.** Required of all doctoral students in educational psychology. Educational Psychology 194 (Topic 4) and 196 (Topic 2) may not both be counted. Offered on the credit/no credit basis only.

**Topic 6: School Psychology Colloquium.** Registration for at least three semesters required of all doctoral students in school psychology. One semester required of students specializing in school psychology; two semesters required of doctoral students specializing in school psychology. Offered on the credit/no credit basis only.

**Topic 8: Human Development, Culture, and Learning Sciences Colloquium.** Required of doctoral student specializing in human development, culture, and learning sciences. Offered on the credit/no credit basis only.

**Topic 10: Quantitative Methods Colloquium.** Presentation and discussion of issues related to graduate study in quantitative methods, including research proposals and developments in the field by advanced graduate students, members of the faculty, and visiting lecturers. Required of all doctoral students specializing in quantitative methods. Educational Psychology 194 (Topic 10) and 196 (Topic 6) may not both be counted. Offered on the credit/no credit basis only.

**Topic 12: Counseling Psychology Colloquium.** Required of doctoral students specializing in counseling psychology. Educational Psychology 194 (Topic 12) and 196 (Topic 3) may not both be counted. Offered on the credit/no credit basis only.

**Topic 14: Selected Subjects Colloquium.** Educational Psychology 194 (Topic 14) and 196 (Topic 8) may not both be counted. Offered on the credit/no credit basis only.

**Topic 16: Internship Colloquium.** Offered on the credit/no credit basis only.

#### **EDP 194N, 394N. Internship in Counseling Psychology.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only.

#### **EDP 194R, 294R, 394R. Research.**

Individual research planned, carried out, and reported under the supervision of a Graduate Studies Committee member. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; consent of instructor; and consent of the adviser in the student's area of specialization.

#### **EDP 395R. Qualifying Process Research.**

Investigation of assigned problems under the direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; and production of an acceptably written research report. Required of doctoral students with a major in educational psychology. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, consent of instructor, and consent of the adviser in the student's area of specialization.

#### **EDP 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in educational psychology and consent of the adviser in the student's area of specialization; for 698B, Educational Psychology 698A.

#### **EDP 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in educational psychology and consent of the adviser in the student's area of specialization.

#### **EDP 398T. College Teaching Methodology.**

Supervised college teaching experience. Three lecture hours a week for one semester. With consent of the adviser in the student's area of specialization, may be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the adviser in the student's area of specialization.

#### **EDP 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

### **Professional Courses**

## **Electrical and Computer Engineering Courses**

### **Electrical and Computer Engineering: ECE Lower-Division Courses**

#### **ECE 302. Introduction to Electrical Engineering.**

Examine the scope and nature of professional activities of electrical engineers, including problem-solving techniques; analysis and design methods; engineering professional ethics; analysis of analog resistive circuits, including Thevenin/Norton equivalents, mesh analysis, and nodal analysis; and operational amplifiers (DC response). Three lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 302, 302H, Electrical Engineering 302, 302H. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 408C or 408K.

#### **ECE 302H. Introduction to Electrical Engineering: Honors.**

Restricted to students in the Engineering Honors Program. Examine the scope and nature of professional activities of electrical engineers, including problem-solving techniques; analysis and design methods; engineering professional ethics; analysis of linear and non-linear analog circuits, including Thevenin/Norton equivalents, two-port networks, frequency domain analysis, mesh analysis, and nodal analysis; and operational amplifiers (DC response). Three lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 302, 302H, Electrical Engineering 302, 302H. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 408D.

#### **ECE 306. Introduction to Computing.**

Introduction to computing including bits and operations on bits, number formats, arithmetic and logic operations, and digital logic. Explore the Von Neumann model of processing including memory, arithmetic logic unit, registers, and instruction decoding and execution. Examine structured programming and debugging, machine and assembly language programming, the structure of an assembler, physical input/output through device registers, subroutine call/return; trap instruction, stacks and applications of stacks. Three lecture hours and one recitation hour a week for one semester. Only one of the following may be counted: Biomedical Engineering 306, Electrical and Computer Engineering 306, 306H, Electrical Engineering 306, 306H. Prerequisite: Credit with a grade of at least a C- or registration for Mathematics 408C or 408K.

### **ECE 306H. Introduction to Computing: Honors.**

Introduction to computing including bits and operations on bits, number formats, arithmetic and logic operations, and digital logic. Explore the Von Neumann model of processing including memory, arithmetic logic unit, registers, and instruction decoding and execution. Examine structured programming and debugging, machine and assembly language programming, the structure of an assembler, physical input/output through device registers, subroutine call/return; trap instruction, stacks and applications of stacks. Three lecture hours and one recitation hour a week for one semester. Only one of the following may be counted: Biomedical Engineering 306, Electrical and Computer Engineering 306, 306H, Electrical Engineering 306, 306H. Prerequisite: Credit with a grade of at least a C- or registration for Mathematics 408C or 408K.

### **ECE 307E. Elements of Electrical and Computer Engineering.**

Introduction to electrical engineering: direct current circuit analysis, resistors, LEDs, switches, current and voltage measurements. Introduction to computer engineering: number systems, digital logic, storage, finite state machines, programming basics, microcontrollers. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 307E, Electrical Engineering 307E, 307S (Topic: Elements of Elec/Comp Engr). Prerequisite: Consent of instructor.

### **ECE 108S. Topics in Technical Skills.**

Explore the development of a specific technical skill. The equivalent of one lecture and one laboratory hour a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Consent of instructor.

### **ECE 109K, 209K, 309K, 409K. Topics in Electrical Engineering.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

### **ECE 309S. Development of a Solar-Powered Vehicle.**

Analyze, design, and construct a solar-powered car for national competitions involving other universities. Study electrical, mechanical, and aerodynamic systems. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 309S and Electrical Engineering 309S may not both be counted.

### **ECE 411. Circuit Theory.**

Examine capacitance and inductance; first- and second-order transient circuit response, including operational amplifier circuits; sinusoidal steady state analysis; Bode plots; complex power in single and balanced three-phase systems; transformers; two-port networks (Z-parameters and Y-parameters); and computer-aided analysis and design. Three lecture hours and two recitation hours a week for one semester. Only one of the following may be counted: Biomedical Engineering 311, Electrical and Computer Engineering 411, Electrical Engineering 411. Prerequisite: One of the following with a grade of at least C- Electrical and Computer Engineering 302 (or Electrical Engineering 302) or 302H (or Electrical Engineering 302H); credit with a grade of at least C- or registration for Mathematics 427J or 427K, and Physics 303L and 103N.

### **ECE 111S. Tools to Enhance Academic Success.**

Explore the components necessary to enhance academic success in engineering coursework including academic self-regulation, time management, self-discipline, goal-setting, weekly and semester planning, growth mindset, self-motivation, management of anxiety and stress, learning and memory, learning strategies, retrieval practices, and exam preparation. One lecture hour a week for one semester. Only one of the

following may be counted: Electrical and Computer Engineering 111S, Electrical Engineering 109K (Topic: Enhancing Academic Success), 111S.

### **ECE 312. Software Design and Implementation I.**

Explore basic problem solving, design and implementation techniques for imperative programming; structured programming in the C/C++ language; programming idioms. Examine software design principles, including modularity, coupling and cohesion; software engineering tools; elementary data structures; and asymptotic analysis. Three lecture hours and one recitation hour a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 312, 312H, Electrical Engineering 312, 312H. Prerequisite: The following coursework with a grade of at least C-: Biomedical Engineering 306 or Electrical and Computer Engineering 306 (or Electrical Engineering 306) or 306H (or Electrical Engineering 306H), and 319K (or Electrical Engineering 319K) or 319H (or Electrical Engineering 319H).

### **ECE 312H. Software Design and Implementation I: Honors.**

Explore basic problem solving, design and implementation techniques for imperative programming; structured programming in the C/C++ language; programming idioms. Examine software design principles, including modularity, coupling and cohesion; software engineering tools; elementary data structures; and asymptotic analysis. Three lecture hours and one recitation hour a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 312, 312H, Electrical Engineering 312, 312H. Prerequisite: The following coursework with a grade of at least B in each: Biomedical Engineering 306 or Electrical and Computer Engineering 306 (or Electrical Engineering 306) or 306H (or Electrical Engineering 306H); Electrical and Computer Engineering 319K (or Electrical Engineering 319K) or 319H (or Electrical Engineering 319H) or registration for Electrical and Computer Engineering 319H (or credit for Electrical Engineering 319H).

### **ECE 313. Linear Systems and Signals.**

Examine representation of signals and systems; system properties; sampling; Laplace and z-transforms; transfer functions and frequency response; convolution; stability; Fourier transform; feedback; and control applications. Explore computer analysis using MATLAB or Python. Three lecture hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 313, Electrical Engineering 313, Biomedical Engineering 343. Prerequisite: Biomedical Engineering 311, Electrical and Computer Engineering 411 (or Electrical Engineering 411), or 331 (or Electrical Engineering 331) with a grade of at least C-; Mathematics 427J or 427K with a grade of at least C-; and credit with a grade of at least C- or registration for Mathematics 340L.

### **ECE 316. Digital Logic Design.**

Explore boolean algebra; analysis and design of combinational and sequential logic circuits; state machine design and state tables and graphs; simulation of combinational and sequential circuits; applications to computer design; and hardware description languages (HDLs) and field-programmable gate arrays (FPGAs). Three lecture hours and one recitation hour a week for one semester. Electrical and Computer Engineering 316 and Electrical Engineering 316 may not both be counted. Prerequisite: Biomedical Engineering 306, Computer Science 429, Electrical and Computer Engineering 306 (or Electrical Engineering 306) or 306H (or Electrical Engineering 306H) with a grade of at least C-.

### **ECE 319H. Introduction to Embedded Systems: Honors.**

Examine embedded systems; machine language execution; assembly and C language programming; local variables and subroutines; input/output synchronization; analog to digital conversion and digital to analog conversion; debugging; and interrupts. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 319K, 319H, Electrical

Engineering 319K, 319H. Prerequisite: Biomedical Engineering 306, Electrical and Computer Engineering 306 (or Electrical Engineering 306), or 306H (or Electrical Engineering 306H) with a grade of at least B.

### **ECE 319K. Introduction to Embedded Systems.**

Explore embedded systems; machine language execution; assembly and C language programming; local variables and subroutines; input/output synchronization; analog to digital conversion and digital to analog conversion; debugging; and interrupts. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 319K, 319H, Electrical Engineering 319K, 319H. Prerequisite: Biomedical Engineering 306, Electrical and Computer Engineering 306 (or Electrical Engineering 306), or 306H (or Electrical Engineering 306H) with a grade of at least C-.

### **ECE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Electrical and Computer Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the Department of Electrical and Computer Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **ECE 321K. Mixed Signal and Circuits Laboratory.**

Explore digital and analog parametric testing of mixed-signal circuits and systems, including frequency response, harmonic and intermodulation, and noise behavior; use of system-level test equipment, including network analyzers, spectrum analyzers, and probe stations; coherent versus noncoherent measurements; and design for testability. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 321K and Electrical Engineering 321K may not both be counted. Prerequisite: Electrical and Computer Engineering 438 (or Electrical Engineering 438) with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or credit with a grade of at least C- for Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **ECE 422C. Software Design and Implementation II.**

Explore methods for engineering software with a focus on abstraction; specification, design, implementation, and testing of object-oriented code using a modern development tool-set for complex systems; design and implementation of object-oriented programs in Java; abstract data types; inheritance; polymorphism; parameterized types and generic programming; the operation and application of commonly used data structures; exception handling and fault tolerance; algorithm analysis; and teamwork models. Three lecture hours and one and one-half laboratory hours a week for one semester. Electrical and Computer Engineering 422C and Electrical Engineering 422C may not both be counted. Prerequisite: Computer Science 312 or Electrical and Computer Engineering 312 (or Electrical Engineering 312) or 312H (or Electrical Engineering 312H) with a grade of at least C-.

### **ECE 325. Electromagnetic Engineering.**

Examine electrostatics and magnetostatics; properties of conductive, dielectric, and magnetic materials; solutions of Maxwell's equations; uniform plane wave applications; and frequency- and time-domain analyses of transmission lines. Three lecture hours a week for one semester. Electrical and Computer Engineering 325 and Electrical

Engineering 325 may not both be counted. Prerequisite: Electrical and Computer Engineering 411 (or Electrical Engineering 411), Mathematics 427J or 427K, Physics 303L, and 103N with a grade of at least C- in each; and credit with a grade of at least C- or registration for Mathematics 427L.

### **ECE 325K. Antennas and Wireless Propagation.**

Explore solutions of time-varying Maxwell's equations with applications to antennas and wireless propagation; antenna theory and design, array synthesis; electromagnetic wave propagation, scattering, and diffraction; and numerical methods for solving Maxwell's equations. Three lecture hours a week for one semester. Electrical and Computer Engineering 325K and Electrical Engineering 325K may not both be counted. Prerequisite: Electrical and Computer Engineering 325 (or Electrical Engineering 325) with a grade of at least C-

### **ECE 325L. Cooperative Engineering.**

Covers the work period of electrical and computer engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Electrical and Computer Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Electrical and Computer Engineering 325LX (or Electrical Engineering 325LX) and appointment for a full-time cooperative work tour; for 325LZ, Electrical and Computer Engineering 325LY (or Electrical Engineering 325LY) and appointment for a full-time cooperative work tour.

### **ECE 225M. Cooperative Engineering.**

Covers the work period of electrical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Electrical and Computer Engineering 225MA and 225MB before a grade and degree credit are awarded. Electrical and Computer Engineering 225M and Electrical Engineering 225M may not both be counted. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Electrical and Computer Engineering 225MA (or Electrical Engineering 225MA) and appointment for a full-time cooperative work tour.

### **ECE 125N. Cooperative Engineering.**

Covers the work period of electrical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Electrical and Computer Engineering 325LZ (or Electrical Engineering 325LZ) or 225MB (or Electrical Engineering 225MB), application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

### **ECE 125S. Internship in Electrical and Computer Engineering.**

Practical work experience in industry or a research lab under the supervision of an engineer or scientist. Requires a substantial final report. At least ten hours of work a week, for a total of 150 hours a semester. May be repeated for credit. Offered on the pass/fail basis only.

### **ECE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Electrical and Computer Engineering.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Electrical and Computer Engineering. University

credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **ECE 331. Electrical Circuits, Electronics, and Machinery.**

Restricted to non-electrical engineering majors. Explore brief theory of direct and alternating current circuits; single-phase and three-phase power transmission; electronic devices and instrumentation; and electromechanics. Three lecture hours a week for one semester. Electrical and Computer Engineering 331 and Electrical Engineering 331 may not both be counted. Prerequisite: Mathematics 408D or 408M with a grade of at least C-, and Physics 303L and 103N with a grade of at least C- in each.

### **ECE 333T. Engineering Communication.**

Restricted to electrical engineering majors. Explore advanced engineering communication skills, with emphasis on technical documents, oral reports, and graphics. Participate in collaborative work involving online communication and research. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 333T, Biomedical Engineering 333T, Communication 333T, Civil Engineering 333T, Chemical Engineering 333T, Electrical and Computer Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, Petroleum and Geosystems Engineering 333T. Prerequisite: Electrical and Computer Engineering 312 (or Electrical Engineering 312), 312H (or Electrical Engineering 312H), or 313 (or Electrical Engineering 313) with a grade of at least C-.

### **ECE 334K. Quantum Theory of Electronic Materials.**

Introduction to quantum mechanics; atoms and molecules; electron statistics; quantum theory of solids; electronic phenomena in semiconductors; and device applications based on these phenomena. Three lecture hours a week for one semester. Electrical and Computer Engineering 334K and Electrical Engineering 334K may not both be counted. Prerequisite: Mathematics 427J or 427K, Physics 303L, and 103N with a grade of at least C- in each.

### **ECE 438. Fundamentals of Electronic Circuits I Laboratory.**

Explore the analysis and design of electronic circuits using semiconductor devices. Examine basic device physics and small-signal modeling for diodes, bipolar junction transistors, and metal-oxide-semiconductor transistors; operation region and biasing; basic switching circuits; single-stage and multi-stage amplifier design and analysis; input and output impedance characteristics of amplifiers; frequency response; AC and DC coupling techniques; and differential amplifiers and output stages. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 438 and Electrical Engineering 438 may not both be counted. Prerequisite: Biomedical Engineering 311 or Electrical and Computer Engineering 411 (or Electrical Engineering 411) with a grade of at least C-; credit with a grade of at least C- or registration for Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313); and credit with a grade of at least C- or registration for one of the following: Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **ECE 438K. Analog Electronics.**

Explore the analysis and design of analog electronic circuits; transistor models; single-ended amplifiers; differential amplifiers; operational amplifiers; frequency response; feedback theory; stability analysis; circuit nonidealities; op-amp-based circuits; output stages; power amplifiers; passive and active analog filters; and relaxation oscillators

Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 438K and Electrical Engineering 438K may not both be counted. Prerequisite: Electrical and Computer Engineering 438 (or Electrical Engineering 438) with a grade of at least C-.

### **ECE 338L. Analog Integrated Circuit Design.**

Explore the analysis and design of analog integrated circuits; transistor models; simple and advanced current mirrors; single-ended amplifiers; differential amplifiers; operational amplifiers; frequency response; feedback theory; stability analysis; circuit nonidealities and noise; output stages; and analog filters. Examine computer-aided design (CAD) tools for circuit analysis and design. Three lecture hours a week for one semester. Electrical and Computer Engineering 338L and Electrical Engineering 338L may not both be counted. Prerequisite: Electrical and Computer Engineering 438 (or Electrical Engineering 438) with a grade of at least C-.

### **ECE 339. Solid-State Electronic Devices.**

Examine semiconductor materials; atomic orbitals to energy band structure of semiconductors; charge carrier transport, electron-hole generation and recombination; p-n junctions and Schottky barriers; bipolar and field-effect transistors; and optoelectronic devices. Three lecture hours a week for one semester. Electrical and Computer Engineering 339 and Electrical Engineering 339 may not both be counted. Prerequisite: Mathematics 427J or 427K, Physics 303L, and 103N with a grade of at least C- in each.

### **ECE 339S. Solar Energy Conversion Devices.**

Investigate basic principles of photovoltaic devices which convert light into charge carriers (electrons and holes). Examine electrons and holes in semiconductors, generation and recombination, junctions, analysis of the p-n junction, silicon and III-V semiconductor solar cell design and optimization, thin film solar cell technologies, managing light, strategies for higher efficiency, and a brief overview of non-photovoltaic approaches to solar energy conversion. Three lecture hours a week for one semester. Electrical and Computer Engineering 339S and Electrical Engineering 339S may not both be counted. Prerequisite: Mathematics 427J or 427K, Physics 303L and 103N with a grade of at least C- in each.

### **ECE 440. Integrated Circuit Nanomanufacturing Techniques.**

Examine integrated circuit processing; crystal growth and wafer preparation; epitaxial growth; oxidation, diffusion, and ion implantation; thin-film deposition techniques; and lithography and etching. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 440 and Electrical Engineering 440 may not both be counted. Prerequisite: Electrical and Computer Engineering 339 (or Electrical Engineering 339) with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **ECE 340P. High-Throughput Nanopatterning.**

Explore sub-50nm fabrication using mechanical patterning techniques; overview of photolithography, mechanical nanopatterning processes, hot embossing, and UV imprint lithography; wafer-scale and roll-to-roll nanopatterning with applications in electronics, photonics, and nanomedicine; physics of nanoreplication, process limits, template (mold) fabrication, defect mechanisms, and factors affecting throughput. Three lecture hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 340P, Electrical Engineering 340P, 379K (Topic: High Throughput Nanopatterning), Mechanical Engineering 379M (Topic: High Throughput Nanopatterning).

Prerequisite: Electrical and Computer Engineering 411 (or Electrical Engineering 411) and 339 (or Electrical Engineering 339), and Mathematics 427K or 429J, with a grade of at least C- in each.

#### **ECE 341. Electric Drives and Machines.**

Explore fundamentals of electric machines. Examine electromechanical energy conversion; magnetic circuits, transformers, and energy conversion devices; and power electronics. Discuss motor drive fundamentals and applications. Three lecture hours a week for one semester. Electrical and Computer Engineering 341 and Electrical Engineering 341 may not both be counted. Prerequisite: Electrical and Computer Engineering 313 (or Electrical Engineering 313) with a grade of at least C-.

#### **ECE 445L. Embedded Systems Design Laboratory.**

Explore the design of microcontroller-based embedded systems; interfacing from both a hardware and software perspective; and applications, including audio, data acquisition, and communication systems. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 445L and Electrical Engineering 445L may not both be counted. Prerequisite: Electrical and Computer Engineering 312 (or Electrical Engineering 312) or 312H (or Electrical Engineering 312H) and 319K (or Electrical Engineering 319K) or 319H (or Electrical Engineering 319H) with a grade of at least C- in each; Electrical and Computer Engineering 411 (or Electrical Engineering 411) and 313 (or Electrical Engineering 313) or Biomedical Engineering 311 and 343, with a grade of at least C- in each; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

#### **ECE 445M. Embedded and Real-Time Systems Laboratory.**

Explore real-time operating systems; implementation of context switching, threads, multitasking, real-time scheduling, synchronization, communication, storage, file systems, memory management, process linking and loading, hardware interfacing, and networking; debugging and testing; operating system performance, including latency, jitter, deadlines, deadlocks, and starvation; real-time systems, including data acquisition, sensing, actuating, digital control, signal processing, and robotics. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 445M and Electrical Engineering 445M may not both be counted. Prerequisite: Electrical and Computer Engineering 445L (or Electrical Engineering 445L) or 445S (or Electrical Engineering 445S) with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

#### **ECE 445S. Real-Time Digital Signal Processing Laboratory.**

Explore digital signal processing algorithms; simulation and real-time implementation of audio and communication systems; filters; pulse shaping and matched filters; modulation and demodulation; adaptive filters; carrier recovery; symbol synchronization; equalization; quantization; and data conversion. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 445S and Electrical Engineering 445S may not both be counted. Prerequisite: Electrical and Computer Engineering 312 (or Electrical Engineering 312) or 312H (or Electrical Engineering 312H) and 319K (or Electrical Engineering 319K) or 319H (or Electrical Engineering 319H) with a grade of at least C- in each; Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering

313) with a grade of at least C-; credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T) Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T; and credit with a grade of at least C- or registration for Biomedical Engineering 335 or Electrical and Computer Engineering 351K (or Electrical Engineering 351K).

#### **ECE 347. Modern Optics.**

Explore modern optical wave phenomena with applications to imaging, holography, fiber optics, lasers, and optical information processing. Three lecture hours a week for one semester. Electrical and Computer Engineering 347 and Electrical Engineering 347 may not both be counted. Prerequisite: Electrical and Computer Engineering 313 (or Electrical Engineering 313) and 325 (or Electrical Engineering 325) with a grade of at least C- in each, or Biomedical Engineering 343 with a grade of at least C-.

#### **ECE 348. Laser and Optical Engineering.**

Explore principles of operation and applications of lasers, optical modulators, and optical detectors. Three lecture hours a week for one semester. Electrical and Computer Engineering 348 and Electrical Engineering 348 may not both be counted. Prerequisite: Electrical and Computer Engineering 339 (or Electrical Engineering 339) with a grade of at least C-.

#### **ECE 351K. Probability and Random Processes.**

Examine probability, random variables, statistics, and random processes, including counting, independence, conditioning, expectation, density functions, distributions, law of large numbers, central limit theorem, confidence intervals, hypothesis testing, statistical estimation, stationary processes, Markov chains, and ergodicity. Three lecture hours a week for one semester. Electrical and Computer Engineering 351K and Electrical Engineering 351K may not both be counted. Prerequisite: Mathematics 427J or 427K with a grade of at least C-.

#### **ECE 351M. Digital Signal Processing.**

Explore sampling, aliasing, truncation effects; discrete and fast Fourier transform methods; convolution and deconvolution; finite and infinite impulse response filter design methods; Wiener, Kalman, noncausal, linear phase, median, and prediction filters; and spectral estimation. Three lecture hours a week for one semester. Electrical and Computer Engineering 351M and Electrical Engineering 351M may not both be counted. Prerequisite: Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313) with a grade of at least a C-, and credit with a grade of at least C- or registration for Biomedical Engineering 335 or Electrical and Computer Engineering 351K (or credit with a grade of at least C- for Electrical Engineering 351K).

#### **ECE 155. Electrical and Computer Engineering Seminar.**

Hear presentations by speakers from industry, government, academia, and professional private practice. Explore environmental and other ethical concerns, safety awareness, quality management, technical career descriptions, and professionalism with a focus on engineering communication. One lecture hour a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 155, Electrical Engineering 155, Electrical and Computer Engineering 364D, Electrical Engineering 364D. Prerequisite: One of the following with a grade of at least C-: English 316L (or 316K), 316M (or 316K), 316N (or 316K), or 316P (or 316K).

#### **ECE 155L. Engineering Leadership Seminar.**

Hear presentations by speakers from industry, government, academia, and professional private practice. Explore environmental and other

ethical concerns, safety awareness, quality management, technical career descriptions, and professionalism. One lecture hour a week for one semester. Electrical and Computer Engineering 155L and Electrical Engineering 155L may not both be counted. Prerequisite: Consent of the dean and one of the following with a grade of at least C-: English 316L (or 316K), 316M (or 316K), 316N (or 316K), or 316P (or 316K).

#### **ECE 155R. Undergraduate Research Seminar.**

Restricted to students in the Department of Electrical and Computer Engineering. Explore areas of research in electrical and computer engineering. One lecture hour a week for a semester. Electrical and Computer Engineering 155R and Electrical Engineering 155R may not both be counted. Offered on the pass/fail basis only.

#### **ECE 160, 260, 360, 460. Special Problems in Electrical and Computer Engineering.**

Restricted to engineering majors. Investigate special problems as approved by the electrical and computer engineering department. For each semester hour of credit earned, the equivalent of three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Electrical and Computer Engineering 312 (or Electrical Engineering 312) or 313 (or Electrical Engineering 313) with a grade of at least C- and consent of instructor.

#### **ECE 360C. Algorithms.**

Explore advanced problem-solving methods; algorithm design principles; complexity analysis; the study of the nature, impact, and handling of intractability; and the study of common algorithmic classes and their applications. Three lecture hours a week for one semester. Electrical and Computer Engineering 360C and Electrical Engineering 360C may not both be counted. Prerequisite: Computer Science 312, Electrical and Computer Engineering 312 (or Electrical Engineering 312), or 312H (or Electrical Engineering 312H) with a grade of at least C-; and Mathematics 325K, Computer Science 311, or 311H with a grade of at least C-.

#### **ECE 360F. Introduction to Software Engineering.**

Introduction to the discipline of software engineering. Explore software system creation and evolution; fundamental concepts and principles of software product and software process systems, including requirements, architecture and design, construction, deployment, and maintenance; and documentation and document management, measurement and evaluation, software evolution, teamwork, and project management. Three lecture hours a week for one semester. Electrical and Computer Engineering 360F and Electrical Engineering 360F may not both be counted. Prerequisite: One of the following with a grade of at least C-: Computer Science 314, 314H, or Electrical and Computer Engineering 422C (or Electrical Engineering 422C) and consent of instructor.

#### **ECE 460J. Data Science Laboratory.**

Explore predictive modeling, regression and classification, data cleaning and preprocessing, feature engineering, unsupervised methods, principal component analysis, data clustering, model selection and feature selection, entropy and information theory, neural networks, deep learning, and machine learning for signals and time-series data. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 460J, Electrical Engineering 460J, 379K (Topic: Data Science Laboratory), 379K (Topic 24). Prerequisite: The following with a grade of at least C- in each: Computer Science 314 or 314H, or Electrical and Computer Engineering 360C (or Electrical Engineering 360C); Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313); and Biomedical Engineering 335 or Electrical and Computer Engineering 351K (or Electrical Engineering 351K) or Mathematics 362K; Mathematics 340L. Credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical

Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T

#### **ECE 360K. Introduction to Digital Communications.**

Examine characterization of baseband and passband communication signals and channels, digital modulation, and pulse shaping; optimum receivers in additive white Gaussian noise including matched-filtering, machine learning (ML), and mean average precision (mAP) detection and their bit error probability for M-ary modulation; inter-symbol interference channels, finite impulse response (FIR) and infinite impulse response (IIR) equalization, multicarrier modulation, orthogonal frequency-division multiplexing (OFDM) and frequency domain equalization. Introduction to information theory, channel capacity, error control codes, and ML sequence detection (Viterbi decoding). Explore applications to stationary wireless and wireline channels. Three lecture hours a week for one semester. Electrical and Computer Engineering 360K and Electrical Engineering 360K may not both be counted. Prerequisite: Biomedical Engineering 335 or Electrical and Computer Engineering 351K (or Electrical Engineering 351K) with a grade of at least C-; Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313) with a grade of at least C-; and Electrical and Computer Engineering 351M (or Electrical Engineering 351M) or 445S (or Electrical Engineering 445S) with a grade of at least a C-.

#### **ECE 460M. Digital Systems Design Using Hardware Description Languages.**

Explore organization, design, simulation, synthesis, and testing of digital systems; hardware description languages (HDLs); field programmable gate arrays (FPGAs); hardware implementation of arithmetic and other algorithmic processes; state machine charts; microprogramming; and microprocessor design. Three lecture hours and three laboratory hours a week for one semester. Electrical Engineering 460M and Electrical Engineering 460M may not both be counted. Prerequisite: Electrical and Computer Engineering 312 (or Electrical Engineering 312) or 312H (or Electrical Engineering 312H), 316 (or Electrical Engineering 316), and 319K (or Electrical Engineering 319K) or 319H (or Electrical Engineering 319H) with a grade of at least C- in each.

#### **ECE 460N. Computer Architecture.**

Examine characteristics of instruction set architecture and microarchitecture; physical and virtual memory; caches and cache design; interrupts and exceptions; integer and floating-point arithmetic; I/O processing; buses; pipelining, out-of-order execution, branch prediction, and other performance enhancements; design trade-offs; and case studies of commercial microprocessors. Explore behavioral-level design of a microarchitecture in a laboratory setting. Three lecture hours and one-and-one-half laboratory/recitation hours a week for one semester. Electrical and Computer Engineering 460N and Electrical Engineering 460N may not both be counted. Prerequisite: Computer Science 312 or 312H, and 429 or 429H with a grade of at least C- in each; or Electrical and Computer Engineering 306 (or Electrical Engineering 306) or 306H (or Electrical Engineering 306H), 312 (or Electrical Engineering 312) or 312H (or Electrical Engineering 312H), and 319K (or Electrical Engineering 319K) or 319H (or Electrical Engineering 319H) with a grade of at least C- in each.

#### **ECE 360P. Concurrent and Distributed Systems.**

Investigate concurrency, lock-based and lock-free synchronization, resource allocation, multi-threaded programming, distributed systems programming, mutual exclusion, global snapshots, global property evaluation, message ordering, consensus, Byzantine agreement, and commit protocols. Three lecture hours a week for one semester. Electrical and Computer Engineering 360P and Electrical Engineering

360P may not both be counted. Prerequisite: Electrical and Computer Engineering 422C (or Electrical Engineering 422C) and 360C (or Electrical Engineering 360C) with a grade of at least C-.

### **ECE 460R. Introduction to VLSI Design.**

Explore theory and practice of very-large-scale integration (VLSI) circuit design. Examine metal-oxide-semiconductor (MOS) transistors; static and dynamic complementary metal-oxide-semiconductor (CMOS) combinational and sequential circuits; design of adders, multipliers, and shifters; performance, power consumption and testing. Use computer-aided design (CAD) tools for layout, timing analysis, synthesis, physical design, and verification. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 460R and Electrical Engineering 460R may not both be counted. Prerequisite: Electrical and Computer Engineering 316 (or Electrical Engineering 316) and 438 (or Electrical Engineering 438) with a grade of at least C- in each.

### **ECE 360S. Digital Integrated Circuit Design.**

Examine circuit-level aspects of metal oxide silicon (MOS) and bipolar integrated circuit technologies. Explore logic gates and latches; propagation delays; and circuit simulation models. Three lecture hours a week for one semester. Electrical and Computer Engineering 360S and Electrical Engineering 360S may not both be counted.

### **ECE 360T. Software Testing.**

Explore basic concepts and techniques used in testing software and finding bugs. Examine process, unit, integration, and system testing; manual and automatic techniques for generation of test inputs and validation of test outputs; and coverage criteria. Focus on functional testing. Three lecture hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 360T, Electrical Engineering 360T, 379K (Topic: Software Testing). Prerequisite: One of the following with a grade of at least C-: Computer Science 314 or 314H, or Electrical and Computer Engineering 422C (or Electrical Engineering 422C).

### **ECE 361C. Multicore Computing.**

Explore theoretical and practical aspects of designing multicore software systems; programming constructs for concurrent computation; openMP; sequential consistency; linearizability; lock-based synchronization; lock-free synchronization; wait-free synchronization; consensus number; software transactional memory; testing and debugging parallel programs; race detection; concurrent data structures such as stacks, queues, linked lists, hash tables, and skip lists; formal models; temporal logic; reachability analysis; and parallel graph algorithms. Three lecture hours a week for one semester. Electrical and Computer Engineering 361C and Electrical Engineering 361C may not both be counted. Prerequisite: Electrical and Computer Engineering 422C (or Electrical Engineering 422C) and Electrical and Computer Engineering 360C (or Electrical Engineering 360C) with a grade of at least C-.

### **ECE 361D. System Design Metrics.**

Examine engineering design, manufacturing, and lifetime support issues; implications of customer perceptions of quality on design; economics of design; and legal implications of design decisions. The equivalent of three lecture hours a week for one semester. Electrical and Computer Engineering 361D and Electrical Engineering 361D may not both be counted. Prerequisite: Electrical and Computer Engineering 364D (or Electrical Engineering 364D) with a grade of at least C-.

### **ECE 361E. Machine Learning and Data Analytics for Edge Artificial Intelligence.**

Examine edge computing; Internet-of-Things (IoT); cyber-physical systems; energy-aware machine learning (ML); deep learning; model compression; knowledge distillation; federated learning; ML security;

system optimization; model-architecture co-design; object detection; and social sensing. Three lecture hours a week for one semester. Electrical and Computer Engineering 361E and Electrical Engineering 379K (Topic: ML/Data Analytc for EDGE AI) may not both be counted. Prerequisite: Electrical and Computer Engineering 460J (or Electrical Engineering 460J) or Computer Science 342 with a grade of at least C-.

### **ECE 361G. Engineering Program Analysis.**

Explore program analysis; compilers; interpreters; code instrumentation; control-flow analysis; data-flow analysis; static single assignment form; dependency analysis; incremental analysis; autotuning; and just-in-time compilation. The equivalent of three lecture hours for one semester. Electrical and Computer Engineering 361G and Electrical Engineering 379K (Topic: Engineering Dynmc Prgrm Anly) may not both be counted. Prerequisite: Electrical and Computer Engineering 422C (or Electrical Engineering 422C) and Electrical and Computer Engineering 360C (or Electrical Engineering 360C) with a grade of at least C- in each.

### **ECE 461L. Software Engineering and Design Laboratory.**

Explore the design and development of large-scale software systems using automated analysis tools. Examine generation of concrete software engineering artifacts at all stages of the software life-cycle. Study design principles and methods; design and modeling tools; collaborative development environment; object-oriented design and analysis; design patterns and refactoring; integration and testing tools; debugger and bug finder; program comprehension; and software life-cycle and evolution. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 461L and Electrical Engineering 461L may not both be counted. Prerequisite: Computer Science 314, 314H, or Electrical and Computer Engineering 422C (or Electrical Engineering 422C) with a grade of at least C-; Mathematics 325K with a grade of at least C-; and credit or registration with a grade of at least C- for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **ECE 361N. Information Security and Privacy.**

Explore information valuation; information classification; information confidentiality, integrity and availability; access control models; trusted identity, trust frameworks. Examine cryptology, designing information system security and privacy, threats and vulnerabilities. Introduction to network, software, and web security; risk assessments; data breach incident response; privacy laws and regulations. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 361N, Electrical Engineering 361N, 379K (Topic: Information Security & Privacy). Prerequisite: Computer Science 312 or 312H, or Electrical and Computer Engineering 312 (or Electrical Engineering 312) or 312H (or Electrical Engineering 312H) with a grade of at least C-.

### **ECE 461P. Data Science Principles.**

Examine principles of unsupervised and supervised learning; exploratory data analysis; feature engineering; predictive modeling for regression and classification; clustering algorithms; neural networks and stochastic gradient descent methods; scalable models for Big Data sets; case studies; and programming predictive models in Python and R. Four lecture hours a week for one semester. Only one of following may be counted: Electrical and Computer Engineering 461P, Electrical Engineering 361M, 461P. Prerequisite: The following with a grade of at least C- in each: Mathematics 340L, and Computer Science 314 or 314H, or Electrical and Computer Engineering 360C (or Electrical Engineering 360C) and Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313) and

Biomedical Engineering 335 or Electrical and Computer Engineering 351K (or Electrical Engineering 351K) or Mathematics 362K.

### **ECE 361Q. Requirements Engineering.**

Explore the methods and technology for acquiring, representing, documenting, verifying, validating, and maintaining requirements; text-based, graphic-based, and computational requirements model representations; requirements analysis to synthesize and resolve conflicts among disparate stakeholder viewpoints; requirements traceability and evolution; and change management. The equivalent of three lecture hours a week for one semester. Electrical and Computer Engineering 361Q and Electrical Engineering 361Q may not both be counted. Prerequisite: Computer Science 312, 312H, Electrical and Computer Engineering 312 (or Electrical Engineering 312) or 312H (or Electrical Engineering 312H) with a grade of at least C-.

### **ECE 361R. Radio-Frequency Electronics.**

Examine modeling of active and passive devices and transmission line structures at high frequencies. Explore analysis and design of radio-frequency electronic circuits including amplifiers, mixers, multipliers, detectors, and oscillators; transistor-, circuit-, and system-level design methods, challenges, and topologies; noise and distortion analysis; and evaluation of modern radio systems. The equivalent of three lecture hours a week for one semester. Electrical and Computer Engineering 361R and Electrical Engineering 361R may not both be counted. Prerequisite: Electrical and Computer Engineering 325 (or Electrical Engineering 325) and 438 (or Electrical Engineering 438) with a grade of at least C- in each.

### **ECE 461S. Operating Systems.**

Introduction to operating system design and implementation; the shell; process management and system calls; memory management; thread management, scheduling, synchronization and concurrency; file systems; input/output systems; virtual machines; and networking and security. Three lecture hours and one-and-one-half laboratory hour a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 461S, Electrical Engineering 461S, Electrical Engineering 379K (Topic: Operating Systems). Prerequisite: The following with a grade of at least C-: Electrical and Computer Engineering 312 (or Electrical Engineering 312) or 312H (or Electrical Engineering 312H), 319K (or Electrical Engineering 319K) or 319H (or Electrical Engineering 319H) and Mathematics 325K.

### **ECE 362G. Smart Grids.**

Explore the fundamentals of smart electric power grids; smart grid architecture, communications, measurement, sensing, design, performance, standards and cyber security; distributed energy, renewable sources, and energy storage; and interoperability. Three lecture hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 362G, Electrical Engineering 362G, Electrical Engineering 379K (Topic: Smart Grids). Prerequisite: Electrical and Computer Engineering 368L (or Electrical Engineering 368L) or 369 (or Electrical Engineering 369) with a grade of at least C-.

### **ECE 362K. Introduction to Automatic Control.**

Restricted to engineering majors. Explore analysis of linear automatic control systems in time and frequency domains; stability analysis; state variable analysis of continuous-time and discrete-time systems; root locus; Nyquist diagrams; Bode plots; sensitivity; and lead and lag compensation. Three lecture hours a week for one semester. Electrical and Computer Engineering 362K and Electrical Engineering 362K may not both be counted. Prerequisite: Upper-division standing, Electrical and Computer Engineering 313 (or Electrical Engineering 313) and Mathematics 340L with a grade of at least C- in each.

### **ECE 462L. Power Electronics Laboratory.**

Explore the analysis, design, and operation of power electronic circuits; power conversion from AC to DC, DC to DC, and DC to AC; rectifiers, inverters, and pulse width modulated motor drives. Examine the use of energy from renewable sources such as photovoltaics and wind in a laboratory setting. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 462L and Electrical Engineering 462L may not both be counted. Prerequisite: Electrical and Computer Engineering 313 (or Electrical Engineering 313) with a grade of at least C-; and credit with a grade of at least C- or registration for one of the following: Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **ECE 362Q. Power Quality and Harmonics.**

Examine and analyze power quality and harmonic phenomena in electric power systems, including characteristics and definitions, voltage sags, electrical transients, harmonics, mitigation techniques, and standards of power quality and harmonics. The equivalent of three lecture hours a week for one semester. Electrical and Computer Engineering 362Q and Electrical Engineering 362Q may not both be counted. Prerequisite: Electrical and Computer Engineering 368L (or Electrical Engineering 368L) or 369 (or Electrical Engineering 369) with a grade of at least C-.

### **ECE 362R. Renewable Energy and Power Systems.**

Examine renewable energy sources and their integration into power systems. Explore wind energy: resources, turbines, blades, rotor power characteristics, generators, active and reactive power, variability, and voltage regulation; solar energy: resources, solar radiation measurements, photovoltaic materials and properties, photovoltaic electrical characteristics, and system integration; and demonstrations with commercial-grade solar panels and laboratory-scale wind turbines. Three lecture hours a week for one semester. Electrical and Computer Engineering 362R and Electrical Engineering 362R may not both be counted. Prerequisite: Electrical and Computer Engineering 313 (or Electrical Engineering 313) with a grade of at least C-.

### **ECE 362S. Development of a Solar-Powered Vehicle.**

Analyze, design, and construct a solar-powered car for national competitions involving other universities. Study electrical, mechanical, and aerodynamic systems. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 362S, Electrical Engineering 362S, Mechanical Engineering 362S. Prerequisite: One of the following with a grade of at least C-: Electrical and Computer Engineering 312 (or Electrical Engineering 312), 312H (or Electrical Engineering 312H), or 313 (or Electrical Engineering 313).

### **ECE 363M. Microwave and Radio Frequency Engineering.**

Examine design principles in microwave and radio frequency systems; transmission lines and waveguides; S-parameter representation; impedance matching; microwave network analysis; microwave devices and components; and electromagnetic effects in high-speed and high-frequency applications. Three lecture hours a week for one semester. Electrical and Computer Engineering 363M and Electrical Engineering 363M may not both be counted. Prerequisite: Electrical and Computer Engineering 325 (or Electrical Engineering 325) with a grade of at least C-.

### **ECE 363N. Engineering Acoustics.**

Same as Electrical Engineering 363N and Mechanical Engineering 379N. Principles of acoustics, with applications drawn from audio engineering, biomedical ultrasound, industrial acoustics, noise control,

room acoustics, and underwater sound. Three lecture hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 363N, Electrical Engineering 363N, Mechanical Engineering 379N. Prerequisite: Mathematics 427J or 427K with a grade of at least C-.

#### **ECE 464C. Corporate Senior Design Project.**

Undertake design and experimental projects in the laboratories of local companies. Examine the ethics of design for safety and reliability. Designed for electrical engineering students working full-time in the industry. Three lecture hours and one-and-one-half laboratory hours a week for one semester. Electrical and Computer Engineering 464C and Electrical Engineering 464C may not both be counted. Prerequisite: Electrical and Computer Engineering 364D (or Electrical Engineering 364D) with a grade of at least C-; and Electrical and Computer Engineering 440 (or Electrical Engineering 440), 445L (or Electrical Engineering 445L), 445S (or Electrical Engineering 445S), 461L (or Electrical Engineering 461L), or 462L (or Electrical Engineering 462L) with a grade of at least C-.

#### **ECE 364D. Introduction to Engineering Design.**

Introduction to the engineering design process. Explore the assessment of engineering problems and customer needs, such as acquiring, documenting, and verifying requirements; high-level system design principles; effects of economic, environmental, ethical, safety, and social issues in design; and writing design specifications. Two lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 155, Electrical Engineering 155, Electrical and Computer Engineering 364D, Electrical Engineering 364D. Only one of the following may be counted: Electrical and Computer Engineering 364E, 364D, Electrical Engineering 364D, 364E. Prerequisite: Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T, with a grade of at least C-; and credit with a grade of at least C- or registration for Electrical and Computer Engineering 438 (or Electrical Engineering 438), 440 (or Electrical Engineering 440), 445L (or Electrical Engineering 445L), 445S (or Electrical Engineering 445S), 460J (or Electrical Engineering 460J), 461L (or Electrical Engineering 461L), 462L (or Electrical Engineering 462L), or 471C (or Electrical Engineering 471C).

#### **ECE 364E. Interdisciplinary Entrepreneurship.**

Start a company with a team. Explore skill development and mentoring in start-up formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Discuss the role of intellectual property and the social issues in design, as well as ethical and safety considerations. The equivalent of three lecture hours a week for one semester, with additional hours to be arranged. Only one of the following may be counted: Electrical and Computer Engineering 364D, 364E, Electrical Engineering 364D, 364E. Prerequisite: Credit with a grade of at least C- in Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T; credit with a grade of at least C- or registration for Electrical and Computer Engineering 438 (or Electrical Engineering 438), 440 (or Electrical Engineering 440), 445L (or Electrical Engineering 445L), 445S (or Electrical Engineering 445S), 460J (or Electrical Engineering 460J), 461L (or Electrical Engineering 461L), 462L (or Electrical Engineering 462L), or 471C (or Electrical Engineering 471C); and consent of instructor.

#### **ECE 464G. Multidisciplinary Senior Design Project.**

Undertake design and experimental projects with teams from multiple engineering disciplines. Examine the ethics of design for safety and reliability. Three lecture hours and one-and-one-half laboratory hours a week for one semester. Electrical and Computer Engineering 464G and Electrical Engineering 464G may not both be counted. Prerequisite: Electrical and Computer Engineering 364D (or Electrical Engineering 364D) with a grade of at least C-; and Electrical and Computer Engineering 440 (or Electrical Engineering 440), 445L (or Electrical Engineering 445L), 445S (or Electrical Engineering 445S), 461L (or Electrical Engineering 461L), or 462L (or Electrical Engineering 462L) with a grade of at least C-.

#### **ECE 464H. Honors Senior Design Project.**

Restricted to students in the Engineering Honors Program. Undertake design and experimental projects under the direction of a University faculty member. Examine the ethics of design for safety and reliability. Three lecture hours and six laboratory hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 464H, 464K, 464R, 464S, Electrical Engineering 464H, 464K, 464R, 464S. Prerequisite: Electrical and Computer Engineering 364D (or Electrical Engineering 364D) with a grade of at least C-, and one of the following with a grade of at least C-: Electrical and Computer Engineering 438 (or Electrical Engineering 438), 440 (or Electrical Engineering 440), 445L (or Electrical Engineering 445L), 445S (or Electrical Engineering 445S), 460J (or Electrical Engineering 460J), 461L (or Electrical Engineering 461L), 462L (or Electrical Engineering 462L), 471C (or Electrical Engineering 471C).

#### **ECE 464K. Senior Design Project.**

Undertake design and experimental projects in Department of Electrical and Computer Engineering laboratories. Examine the ethics of design for safety and reliability. Three lecture hours and six laboratory hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 464H, 464K, 464R, 464S, Electrical Engineering 464H, 464K, 464R, 464S. Prerequisite: Electrical and Computer Engineering 364D (or Electrical Engineering 364D) with a grade of at least C-, and one of the following with a grade of at least C-: Electrical and Computer Engineering 438 (or Electrical Engineering 438), 440 (or Electrical Engineering 440), 445L (or Electrical Engineering 445L), 445S (or Electrical Engineering 445S), 460J (or Electrical Engineering 460J), 461L (or Electrical Engineering 461L), 462L (or Electrical Engineering 462L), 471C (or Electrical Engineering 471C).

#### **ECE 464R. Research Senior Design Project.**

Undertake design and experimental projects under the supervision of a University faculty member. Examine the ethics of design for safety and reliability. Three lecture hours and six laboratory hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 464H, 464K, 464R, 464S, Electrical Engineering 464H, 464K, 464R, 464S. Prerequisite: Electrical and Computer Engineering 364D (or Electrical Engineering 364D) with a grade of at least C-, and one of the following with a grade of at least C-: Electrical and Computer Engineering 438 (or Electrical Engineering 438), 440 (or Electrical Engineering 440), 445L (or Electrical Engineering 445L), 445S (or Electrical Engineering 445S), 460J (or Electrical Engineering 460J), 461L (or Electrical Engineering 461L), 462L (or Electrical Engineering 462L), 471C (or Electrical Engineering 471C).

#### **ECE 464S. Start-Up Senior Design Project.**

Complete a practical engineering product design; validate the design through prototype construction and testing, modeling and simulation, and manufacturability analysis. Develop a completed company prospectus and seek venture funding for the project. Three lecture hours and six laboratory hours a week for one semester. Only one of

the following may be counted: Electrical and Computer Engineering 464H, 464K, 464R, 464S, Electrical Engineering 464H, 464K, 464R, 464S. Prerequisite: Electrical and Computer Engineering 364E (or Electrical Engineering 364E) with a grade of at least C-, and one of the following with a grade of at least C-: Electrical and Computer Engineering 438 (or Electrical Engineering 438), 440 (or Electrical Engineering 440), 445L (or Electrical Engineering 445L), 445S (or Electrical Engineering 445S), 460J (or Electrical Engineering 460J), 461L (or Electrical Engineering 461L), 462L (or Electrical Engineering 462L), 471C (or Electrical Engineering 471C) and consent of instructor.

### **ECE 366. Engineering Economics I.**

Explore business organization; discounted cash flow calculations, including present-worth and rate-of-return calculations; replacement analyses; financial analyses; accounting and depreciation; income taxes; inflation; risk analysis, utility theory, decision models, sequential decision making; and value of information. Three lecture hours a week for one semester. Electrical and Computer Engineering 366 and Electrical Engineering 366 may not both be counted. Prerequisite: The following with a grade of at least C-: Biomedical Engineering 335 or Electrical and Computer Engineering 351K (or Electrical Engineering 351K), and Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313).

### **ECE 366K. Engineering Economics II.**

Explore the fundamentals of risk management, including portfolio theory, capital asset pricing theory, and optimal project mix; hedging financial risk; advanced economic analysis of alternative energy systems; and advanced mathematical modeling techniques for economic analysis. Three lecture hours a week for one semester. Electrical and Computer Engineering 366K and Electrical Engineering 366K may not both be counted. Prerequisite: Electrical and Computer Engineering 366 (or Electrical Engineering 366) with a grade of at least C-.

### **ECE 366L. Statistics for Manufacturing.**

Explore statistical analysis applied to the development and control of manufacturing operations. Examine quality control, statistical process control, and design of experiments. Three lecture hours a week for one semester. Electrical and Computer Engineering 366L and Electrical Engineering 366L may not both be counted. Prerequisite: The following with a grade of at least C-: Biomedical Engineering 335 or Electrical and Computer Engineering 351K (or Electrical Engineering 351K) and Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313).

### **ECE 368L. Power Systems Apparatus and Laboratory.**

Explore fundamentals of power systems emphasized through laboratory experiments; complex power, three-phase circuits, per-unit system, transformers, synchronous machines, transmission line models, steady-state analysis, induction machines, capacitor banks, protective relaying, surge arrestors, and instrumentation. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 368L and Electrical Engineering 368L may not both be counted. Prerequisite: Electrical and Computer Engineering 313 (or Electrical Engineering 313) with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **ECE 369. Power Systems Engineering.**

Examine power systems engineering. Explore complex power, phasors, balanced three phase power systems, transformers and per-unit systems, transmission line parameters, steady state operation of

transmission lines, the power flow problem, symmetrical faults, power system controls, economic operation of power systems, optimal power flow, and deregulation and restructuring of electricity markets. Three lecture hours a week for one semester. Electrical and Computer Engineering 369 and Electrical Engineering 369 may not both be counted. Prerequisite: Electrical and Computer Engineering 313 (or Electrical Engineering 313) with a grade of at least C-.

### **ECE 369L. Relay Protection of Power Systems.**

Examine the theory, principles, and practices for protecting medium-voltage industrial power systems and high-voltage transmission grids, including symmetrical components; fault calculations and grounding; protection of motors, generators, cables, and transmission lines; and relay settings, fusing, and coordination of multiple protection devices. Two lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 369L and Electrical Engineering 369L may not both be counted. Prerequisite: Electrical and Computer Engineering 313 (or Electrical Engineering 313) with a grade of at least C-.

### **ECE 370. Automatic Control II.**

Introduction to modern control theory, nonlinear and optimal control systems; controllability, observability, stability; state feedback, observers, eigenvalue assignment. Three lecture hours a week for one semester. Electrical and Computer Engineering 370 and Electrical Engineering 370 may not both be counted. Prerequisite: Credit with a grade of at least C- or registration for Electrical and Computer Engineering 362K (or credit with a grade of at least C- for Electrical Engineering 362K).

### **ECE 370K. Computer Control Systems.**

Explore the analysis and design of linear discrete time control systems; z-transform theory; modified z-transforms; stability; multirate systems; digital simulation of discrete time systems; and synthesis of algorithms for computer controllers. Three lecture hours a week for one semester. Electrical and Computer Engineering 370K and Electrical Engineering 370K may not both be counted. Prerequisite: Credit with a grade of at least C- or registration for Electrical and Computer Engineering 362K (or Electrical Engineering 362K).

### **ECE 370L. Introduction to Manufacturing Systems Automation.**

Explore applications of automation techniques to manufacturing systems, robotics, and computer vision. Three lecture hours a week for one semester. Electrical and Computer Engineering 370L and Electrical Engineering 370L may not both be counted. Prerequisite: Electrical and Computer Engineering 362K (or Electrical Engineering 362K) with a grade of at least C-.

### **ECE 370N. Introduction to Robotics and Mechatronics.**

Examine structures for industrial robots; geometry and transformation; direct and inverse kinematics; differential kinematics; dynamics; trajectory planning; actuators and sensors; adaptive control and learning compliance; vision and pattern recognition; and expert systems. Three lecture hours a week for one semester. Electrical and Computer Engineering 370N and Electrical Engineering 370N may not both be counted. Prerequisite: Electrical and Computer Engineering 362K (or Electrical Engineering 362K) with a grade of at least C-.

### **ECE 471C. Wireless Communications Laboratory.**

Examine the fundamentals of wireless communication from a digital signal processing perspective; linear modulation, demodulation, and orthogonal frequency division multiplexing; synchronization, channel estimation, and equalization; communication in fading channels; and wireless standards. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 371C and

Electrical Engineering 371C may not both be counted. Prerequisite: Electrical and Computer Engineering 445S (or Electrical Engineering 445S), 351M (or Electrical Engineering 351M), or 360K (or Electrical Engineering 360K) with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

#### **ECE 371D. Introduction to Neural Networks.**

Explore characteristics of artificial neural networks, feedforward networks, and recurrent networks; learning algorithms; self-organization; biological links; and data mining and other applications. Three lecture hours a week for one semester. Electrical and Computer Engineering 371D and Electrical Engineering 371D may not both be counted. Prerequisite: The following with a grade of at least C- in each: Mathematics 340L, and Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313), and Biomedical Engineering 335 or Electrical and Computer Engineering 351K (or Electrical Engineering 351K) or Mathematics 362K.

#### **ECE 371M. Communication Systems.**

Explore analog and digital modulation; noise in communication systems; signal-to-noise ratio; coding; optimal receiver design; phase-locked loops; and performance analysis. Three lecture hours a week for one semester. Electrical and Computer Engineering 371M and Electrical Engineering 371M may not both be counted. Prerequisite: The following with a grade of at least C- in each: Mathematics 340L, and Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313), and Biomedical Engineering 335 or Electrical and Computer Engineering 351K, (or Electrical Engineering 351K) or Mathematics 362K.

#### **ECE 371Q. Digital Image Processing.**

Examine digital image acquisition, processing, and analysis; two dimensional Fourier analysis; 2D wavelets; image filtering; image denoising; image compression; machine learning for image processing and analysis; deep learning of images; picture quality prediction; image analysis; 3D stereoscopic ranging. Three lecture hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 371Q, Electrical Engineering 371Q, 371R. Prerequisite: The following with a grade of at least C- in each: Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313) and Biomedical Engineering 335 or Electrical and Computer Engineering 351K (or Electrical Engineering 351K) or Mathematics 362K.

#### **ECE 472L. Network Engineering Laboratory.**

Explore local, metropolitan, and wide-area operations; telecommunication common carrier organizations and services; administrative and political considerations; premise distribution systems; name resolution, address assignment, and mail; datagram, packets, frames, and cells; addressing and network-level interconnection; internetwork architecture; TCP/IP protocol suite (v. 4 and 6); Ethernet and IEEE 802.3 standards; IEEE 802.11 standards and wireless access points; repeaters, hubs, bridges, routers; local area network emulation; public switched network access through POTS and ISDN; intradomain and interdomain routing; routing protocols, including RIP, OSPF, and BGP; multicast; media testing; and local- and wide-area diagnostic tools. Three lecture hours and three laboratory hours a week for one semester. Electrical and Computer Engineering 472L and Electrical Engineering 372L may not both be counted. Prerequisite: Electrical and Computer Engineering 372N (or Electrical Engineering 372N) with a grade of at least C-; and credit with a grade of at least C-

registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

#### **ECE 372N. Telecommunication Networks.**

Examine circuit and packet-switched networks; local area networks; protocol stacks; asynchronous transfer mode (ATM) and broadband integrated services digital network (ISDN); Internet; routing, congestion control, and performance evaluation; and multimedia applications. Three lecture hours a week for one semester. Electrical and Computer Engineering 372N and Electrical Engineering 372N may not both be counted. Prerequisite: The following with a grade of at least C- in each: Mathematics 340L, and Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313), and Biomedical Engineering 335 or Electrical and Computer Engineering 351K (or Electrical Engineering 351K) or Mathematics 362K.

#### **ECE 372S. Cryptography and Network Security.**

Explore distributed information system security, cryptographic tools, authentication, message security, and system management. The equivalent of three lecture hours a week for one semester. Electrical and Computer Engineering 372S and Electrical Engineering 372S may not both be counted. Prerequisite: Mathematics 325K or 340L with a grade of at least C-.

#### **ECE 374K. Biomedical Electronic Instrument Design.**

Explore the application of electrical engineering principles in the design of electronic instrumentation at the circuit-board level for the measurement of pressure, temperature, flow, and impedance. Examine the study of light intensity, bioelectric potentials, and stimulation devices such as pacemakers and defibrillators. Focus on design considerations specific to electro-medical environments, safety and efficacy, and public policy issues. Three lecture hours a week for one semester. Electrical and Computer Engineering 374K and Electrical Engineering 374K may not both be counted. Prerequisite: Electrical and Computer Engineering 438 (or Electrical Engineering 438) with a grade of at least C-.

#### **ECE 374L. Applications of Biomedical Engineering.**

Examine areas of biomedical engineering, such as optical and thermal properties of laser interaction with tissue; measurement of perfusion in the microvascular system; diagnostic imaging; interaction of living systems with electromagnetic fields; robotic surgical tools; ophthalmic instrumentation; and noninvasive cardiovascular measurements. Three lecture hours and six laboratory hours a week for one semester. Electrical and Computer Engineering 374L and Electrical Engineering 374L may not both be counted. Prerequisite: Electrical and Computer Engineering 374K (or Electrical Engineering 374K) with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical and Computer Engineering 333T (or credit with a grade of at least C- for Electrical Engineering 333T), Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

#### **ECE 679H. Undergraduate Honors Thesis.**

Restricted to students in the Engineering Honors Program. Undertake research across two consecutive semesters under the supervision of an engineering faculty member. Investigate a research area, selected with a faculty member with approval by the director of the Engineering Honors Program. Deliver an oral presentation and write a thesis. Individual instruction for two semesters. Electrical and Computer Engineering 679H and Electrical Engineering 679H may not both be counted. Prerequisite: For 679HB, Electrical and Computer Engineering 679HA (or Electrical Engineering 679HA) with a grade of at least C-.

## **ECE 179K, 279K, 379K, 479K. Topics in Electrical Engineering.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Electrical and Computer Engineering 312 (or Electrical Engineering 312) or 313 (or Electrical Engineering 313) with a grade of at least C-, and consent of instructor.

**Topic 1: Conference Course.** Electrical and Computer Engineering 179K (Topic 1) and Electrical Engineering 179K (Topic 1) may not both be counted.

**Topic 15: Information Theory.** Examine measures of information; noiseless coding and data compression; discrete memoryless channels and channel capacity; broadcast channels; and error-correcting codes. Electrical and Computer Engineering 179K (Topic 15) and Electrical Engineering 179K (Topic 15) may not both be counted. Additional prerequisite: The following with a grade of at least C- in each: Mathematics 340L; and Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313); and Biomedical Engineering 335, Electrical and Computer Engineering 351K (or Electrical Engineering 351K), or Mathematics 362K.

**Topic 20: Computer Architecture: Personal Computer Design.** Explore commercial general-purpose processors, memory architecture, buses, storage devices, graphics subsystems, I/O devices and peripherals, audio subsystems, operating systems, benchmarking, manufacturing, and testing of personal computer systems. Electrical and Computer Engineering 179K (Topic 20) and Electrical Engineering 179K (Topic 20) may not both be counted. Additional prerequisite: Electrical and Computer Engineering 460N (or Electrical Engineering 460N) with a grade of at least C-.

**Topic 21: Information and Cryptography.** Explore information theory; construction of codes; cryptography, including security and randomized encryption; Kolmogorov complexity; statistics, including large deviations, nonparametrics, and information inequalities; Vapnik-Cervonenkis methods for learning theory. Electrical and Computer Engineering 179K (Topic 21) and Electrical Engineering 179K (Topic 21) may not both be counted. Additional prerequisite: The following with a grade of at least C- in each: Mathematics 340L; and Biomedical Engineering 343 or Electrical and Computer Engineering 313 (or Electrical Engineering 313); and Biomedical Engineering 335, Electrical and Computer Engineering 351K (or Electrical Engineering 351K), or Mathematics 362K.

**Topic 23: Software Evolution.** Explore software design principles; program differencing techniques; program transformation languages and tools; and analysis, testing, debugging and visualization methods for evolving software. Only one of the following may be counted: Electrical and Computer Engineering 379K (Topic 23), Electrical Engineering 379K (Topic: Software Evolution), 379K (Topic 23). Additional prerequisite: Electrical and Computer Engineering 461L (or Electrical Engineering 461L) with a grade of at least C-, or an equivalent computer science course with a grade of at least C-.

## **Graduate Courses**

### **ECE 380C. Introduction to Optimization.**

Three lecture hours a week for one semester. Electrical and Computer Engineering 380C and Electrical Engineering 380C may not both be counted. Prerequisite: Graduate standing.

### **ECE 380K. Introduction to System Theory.**

Introduction to linear dynamical systems and differential equations, state space analysis and applications to feedback control, functional analytic methods, realization theory, stability theory, and elements of optimal control. Three lecture hours a week for one semester. Electrical and Computer Engineering 380K and Electrical Engineering 380K may

not both be counted. Prerequisite: Graduate standing and knowledge in real analysis.

### **ECE 380L. Topics in Computer Systems in Engineering.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 5: Engineering Programming Languages.** Explore higher-level languages for engineering design and problem solving; object-oriented programming in C++ and Unix systems programming. Electrical and Computer Engineering 380L (Topic 5) and Electrical Engineering 380L (Topic 5) may not both be counted.

**Topic 7: Introduction to Pattern Recognition and Computer Vision.** Explore pattern recognition, including Bayesian decision theory, maximum likelihood and estimation, nonparametric techniques, and linear discriminant functions. Examine computer vision, including geometric camera models and calibration, geometry of multiple views and stereopsis, structure from motion, and tracking. Electrical and Computer Engineering 380L (Topic 7) and Electrical Engineering 380L (Topic 7) may not both be counted.

**Topic 8: Computer Vision Systems.** Discuss current research results and explore new directions in computer vision systems, including linear discriminant functions, nonmetric methods, unsupervised learning and clustering, model-based vision, segmentation using probabilistic methods, and content-based image and video analysis. Apply the techniques to real-world vision systems. Electrical and Computer Engineering 380L (Topic 8) and Electrical Engineering 380L (Topic 8) may not both be counted.

**Topic 9: Artificial Neural Systems.** Examine feed-forward networks, distributed associative memory, recurrent networks, self-organization, parallel implementation, and applications. Electrical and Computer Engineering 380L (Topic 9) and Electrical Engineering 380L (Topic 9) may not both be counted.

**Topic 10: Data Mining.** Analyze large data sets for interesting and useful information. Explore online analytical processing, association rules, clustering, classification, and function approximations. Examine scalability of algorithms and real-life applications. Electrical and Computer Engineering 380L (Topic 10) and Electrical Engineering 380L (Topic 10) may not both be counted.

**Topic 11: Mining the Web.** Analyze data and information available from the World Wide Web. Explore the exploitation of the hyperlink structure of the Web for developing better search engines. Examine content analysis; information retrieval, clustering, and hierarchical categorization of Web documents; web usage mining; and collaborative filtering and personalizing the Web. Electrical and Computer Engineering 380L (Topic 11) and Electrical Engineering 380L (Topic 11) may not both be counted. Additional prerequisite: Electrical and Computer Engineering 380L (Topic 10) (or Electrical Engineering 380L (Topic 10)) or Computer Science 391L.

**Topic 12: Real-Time Operating Systems Laboratory.** Explore real-time operating systems; implementation of context switching, threads, multitasking, real-time scheduling, synchronization, communication, storage, file systems, memory management, process linking and loading, hardware interfacing, and networking; debugging and testing; operating system performance, including latency, jitter, deadlines, deadlocks, and starvation; real-time systems, including data acquisition, sensing, actuating, digital control, signal processing, and robotics. Only one of the following may be counted: Electrical and Computer Engineering 380L (Topic 12), Electrical Engineering 380L (Topic 6), 380L (Topic 12). Additional prerequisite: General understanding of assembly and C programming, computer architecture, embedded systems, and hardware/software interfacing.

### **ECE 380N. Topics in System Theory.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Electrical and Computer Engineering 380K (or Electrical Engineering 380K).

**Topic 1: Nonlinear Systems: Input-Output Properties.** Electrical and Computer Engineering 380N (Topic 1) and Electrical Engineering 380N (Topic 1) may not both be counted.

**Topic 2: Nonlinear Systems: Geometric Theory.** Electrical and Computer Engineering 380N (Topic 2) and Electrical Engineering 380N (Topic 2) may not both be counted.

**Topic 3: Adaptive Control Systems.** Electrical and Computer Engineering 380N (Topic 3) and Electrical Engineering 380N (Topic 3) may not both be counted.

**Topic 4: Learning Systems and Cybernetic Machines.** Electrical and Computer Engineering 380N (Topic 4) and Electrical Engineering 380N (Topic 4) may not both be counted.

**Topic 5: Stochastic Control Theory.** Examine dynamic programming in finite and infinite horizon, models with imperfect state information, ergodic control problems, and adaptive and risk-sensitive control. Electrical and Computer Engineering 380N (Topic 5) and Electrical Engineering 380N (Topic 5) may not both be counted. Additional prerequisite: Electrical and Computer Engineering 381J (or Electrical Engineering 381J).

**Topic 7: Design of Computer-Controlled Systems.** Electrical and Computer Engineering 380N (Topic 7) and Electrical Engineering 380N (Topic 7) may not both be counted.

**Topic 8: Algorithms for Parallel and Distributed Computation.** Electrical and Computer Engineering 380N (Topic 8) and Electrical Engineering 380N (Topic 8) may not both be counted.

**Topic 9: Fundamentals of Robotics and Mechatronics.** Explore the theory of robotics and mechatronics, with emphasis on control, sensing, actuation, low- and high-level vision. Examine manipulator geometry, kinematics, dynamics, and planning of trajectories. Electrical Engineering 380N (Topic 9) and Electrical Engineering 380N (Topic 9) may not both be counted.

**Topic 10: Robotics II.** Electrical and Computer Engineering 380N (Topic 10) and Electrical Engineering 380N (Topic 10) may not both be counted.

**Topic 11: Optimization in Engineering Systems.** Same as Operations Research and Industrial Engineering 391Q (Topic 16). Formulation and solution of continuous optimization problems in engineering design and operations. Only one of the following may be counted: Electrical and Computer Engineering 380N (Topic 11), Electrical Engineering 380N (Topic 11), Operations Research and Industrial Engineering 391Q (Topic 16).

### **ECE 381C. Verification and Validation.**

Three lecture hours a week for one semester. Electrical and Computer Engineering 381C and Electrical Engineering 381C may not both be counted. Prerequisite: Graduate standing.

### **ECE 381J. Probability and Stochastic Processes I.**

Examine probability spaces, random variables, expectation, conditional expectation, stochastic convergence, characteristic functions, and limit theorems. Explore Markov and Gaussian processes, stationary processes, spectral representation, ergodicity, renewal processes, martingales, and applications to estimation, prediction, and queueing theory. Three lecture hours a week for one semester. Electrical and Computer Engineering 381J and Electrical Engineering 381J may not both be counted. Prerequisite: Graduate standing, and an undergraduate course in probability, statistics, and random processes.

### **ECE 381K. Topics in Decision, Information, and Communications Engineering.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with topic.

**Topic 1: Detection Theory.** Electrical and Computer Engineering 381K (Topic 1) and Electrical Engineering 381K (Topic 1) may not both be counted.

**Topic 2: Digital Communications.** Explore characterization of baseband and passband communication signals and channels, digital modulation, and pulse shaping; optimum receivers in additive white Gaussian noise including matched-filtering, ML, and MAP detection and their bit error probability for M-ary modulation; intersymbol interference channels, FIR and IIR equalization, multicarrier modulation, OFDM and frequency domain equalization. Introduction to information theory, channel capacity, error control codes, and ML sequence detection (Viterbi decoding). Examine applications to stationary wireless and wireline channels. Electrical and Computer Engineering 381K (Topic 2) and Electrical Engineering 381K (Topic 2) may not both be counted. Additional prerequisite: Knowledge in probability and random processes, digital signal processing, and digital communications.

**Topic 5: Advanced Telecommunication Networks.** Explore methods and research issues in the performance evaluation and management of high-speed and mobile communication networks. Electrical and Computer Engineering 381K (Topic 5) and Electrical Engineering 381K (Topic 5) may not both be counted. Additional prerequisite: Electrical and Computer Engineering 380N (Topic 11) (or Electrical Engineering 380N (Topic 11)), 381J (or Electrical Engineering 381J), and 381K (Topic 13) (or Electrical Engineering 381K (Topic 13)).

**Topic 6: Estimation Theory.** Electrical and Computer Engineering 381K (Topic 6) and Electrical Engineering 381K (Topic 6) may not both be counted.

**Topic 7: Information Theory.** Explore source and channel coding theorems, Kolmogorov complexity, network information theory, and connections with large deviations. Electrical and Computer Engineering 381K (Topic 7) and Electrical Engineering 381K (Topic 7) may not both be counted. Additional prerequisite: Knowledge in communications systems.

**Topic 8: Digital Signal Processing.** Examine signals and systems; generalized functions; z-transforms; Fourier series and transforms; fast Fourier transform; sampling, quantization, and aliasing; digital filter design; discrete-time random processes; multirate processing; filter banks and subband decomposition; nonlinear digital filters. Electrical and Computer Engineering 381K (Topic 8) and Electrical Engineering 381K (Topic 8) may not both be counted. Additional prerequisite: Knowledge in probability and random processes, and digital signal processing.

**Topic 9: Advanced Signal Processing.** Explore signal modeling; optimum filtering; spectral estimation; fast algorithms; and applications in array signal processing, speech coding, and digital communication. Electrical and Computer Engineering 381K (Topic 9) and Electrical Engineering 381K (Topic 9) may not both be counted. Additional prerequisite: Knowledge in probability and random processes, digital signal processing, and matrices and matrix calculations.

**Topic 11: Wireless Communications.** Introduction to fundamental aspects of wireless communication systems including channel modeling, diversity, multiple antenna transmission and reception, beamforming, adaptive modulation. Explore multiuser communication concepts including OFDMA and SC-FDMA, spread spectrum and CDMA, and broadcast and MAC channels. Examine system-level modeling including network information theory, stochastic geometry, and network interference models. Electrical and Computer

Engineering 381K (Topic 11) and Electrical Engineering 381K (Topic 11) may not both be counted. Additional prerequisite: Electrical and Computer Engineering 381K (Topic 2) (or Electrical Engineering 381K (Topic 2)), Electrical and Computer Engineering 471C (or Electrical Engineering 471C) or Electrical and Computer Engineering 381K (Topic 17) (or Electrical Engineering 381K (Topic 17)) or consent of instructor.

**Topic 13: Analysis and Design of Communication Networks.**

Examine stochastic and deterministic traffic and queueing models. Explore techniques for call admission, routing, flow control, network optimization, estimation, and decision making in uncertain environments. Electrical and Computer Engineering 381K (Topic 13) and Electrical Engineering 381K (Topic 13) may not both be counted. Additional prerequisite: Electrical and Computer Engineering 381J (or Electrical Engineering 381J) and 381K (Topic 15) (or Electrical Engineering 381K (Topic 15) or 382N (Topic 5)).

**Topic 14: Multidimensional Digital Signal Processing.** Explore multidimensional signals and systems, multidimensional discrete Fourier analysis, discrete cosine transform, two-dimensional filters, beamforming, seismic processing, tomography, multidimensional multirate systems, image halftoning, and video processing. Electrical and Computer Engineering 381K (Topic 14) and Electrical Engineering 381K (Topic 14) may not both be counted. Additional prerequisite: Electrical and Computer Engineering 380K (or Electrical Engineering 380K), 381K (Topic 8) (or Electrical Engineering 381K (Topic 8)), or 383P (Topic 1) (or Electrical Engineering 383P (Topic 1)).

**Topic 15: Communication Networks: Technology, Architectures, and Protocols.** Explore network services and techniques, layered architectures, circuit and packet-switching networks, internetworking, switch architectures, control mechanisms, and economic issues. Only one of the following may be counted: Electrical and Computer Engineering 381K (Topic 15), Electrical Engineering 381K (Topic 15), 382N (Topic 5). Additional prerequisite: Consent of instructor.

**Topic 16: Digital Video.** Examine video sampling and transform; video (retinal and cortical) filters; motion detection and estimation; statistical models of videos; neuroscience of video perception; natural video statistics; modern video compression standards; video quality prediction; video denoising; active contour models; and video saliency. Only one of the following may be counted: Electrical and Computer Engineering 381K (Topic 16), Electrical Engineering 381K (Topic 16), 381V (Topic: Digital Video).

**Topic 17: Wireless Communications Laboratory.** Explore the fundamentals of wireless communication from a digital signal processing perspective; linear modulation, demodulation, and orthogonal frequency division multiplexing; synchronization, channel estimation, and equalization; communication in fading channels; principles of multiple-input, multiple-output (MIMO) communication; and wireless standards. Only one of the following may be counted: Electrical and Computer Engineering 381K (Topic 17), Electrical Engineering 381K (Topic 17), 381V (Topic: Wireless Communications Lab). Additional prerequisite: Consent of instructor.

**Topic 18: Convex Optimization.** Same as Operations Research and Industrial Engineering 391Q (Topic 15). The fundamentals of convex optimization with a focus on modeling, computation and scale: convex sets and functions, unconstrained optimization via first and second-order methods, duality, constrained optimization, SDPs, stochastic and sub-gradient descent methods, ADMMs, and applications. Only one of the following may be counted: Electrical and Computer Engineering 381K (Topic 18), Electrical Engineering 381K (Topic 18), 381V (Topic: Large Scale Optimization), Operations Research and Industrial Engineering 391Q (Topic 15). Additional prerequisite: Consent of instructor.

**Topic 19: Wireless Network Modeling and Performance Evaluation.** Explore modeling of large wireless networks, random graphs, stochastic geometry, point processes, space and time averages, connectivity, stability, capacity, and network design optimization, with

applications for cellular network, mobile ad hoc networks, device to device networks, and vehicular networks. Electrical and Computer Engineering 381K (Topic 19) and Electrical Engineering 381K (Topic 19) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 20: Complex Networks in the Real World.** Explore networks in natural and technological systems. Examine network structure and dynamics; clustering; network models; small worlds; scale-free networks; preferential attachment; community structure in networks; self-similarity and multiscale behavior; network-on-chip optimization and control; dynamical processes in socio-technological systems; epidemics and rumors; human mobility; and other networks. Electrical and Computer Engineering 381K (Topic 20) and Electrical Engineering 381K (Topic 20) may not both be counted.

**ECE 381L. Digital Time Series Analysis and Applications.**

Examine digital implementation of higher-order spectra and other techniques useful in analyzing, interpreting, and modeling random time series data from linear and nonlinear physical systems. Three lecture hours a week for one semester. Electrical and Computer Engineering 381L and Electrical Engineering 381L may not both be counted. Prerequisite: Graduate standing in engineering or natural sciences.

**ECE 381M. Probability and Stochastic Processes II.**

Examine random walk and Brownian motion; renewal and regenerative processes; Markov processes; ergodic theory; continuous parameter martingales; stochastic differential equations; diffusions; stochastic control; and multidimensional stochastic models. Three lecture hours a week for one semester. Electrical and Computer Engineering 381M and Electrical Engineering 381M may not both be counted. Prerequisite: Graduate standing and Electrical and Computer Engineering 381J (or Electrical Engineering 381J).

**ECE 381S. Space-Time Communication.**

Explore multiple-input multiple-output (MIMO) wireless communication, including discrete-time signal models, equalization, and channel estimation; channel models; channel capacity; average probability of error in fading channels; channel coding; transmit and receive diversity; space-time codes; spatial multiplexing; precoding and limited feedback; space-time adaptation; multiuser communication; multiuser information theory; practical multiuser algorithms; and applications in recent standards. Three lecture hours a week for one semester. Electrical and Computer Engineering 381S and Electrical Engineering 381S may not both be counted. Prerequisite: Graduate standing and Electrical and Computer Engineering 381J (or Electrical Engineering 381J) and 381K (Topic 2) (or Electrical Engineering 381K (Topic 2)).

**ECE 381V. Topics in Communications, Networks, and Systems.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**ECE 382C. Topics in Software Engineering and Systems.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Engineering Design of Software and Software Systems.**

Explore the software development process; selection and application of software design methods; and evaluation of software designs. Electrical and Computer Engineering 382C (Topic 1) and Electrical Engineering 382C (Topic 1) may not both be counted.

**Topic 2: Creation and Maintenance of Distributed Software Systems.**

Examine the creation of large distributed software applications, with emphasis on specification, failure models, correctness, and security.

Electrical and Computer Engineering 382C (Topic 2) and Electrical Engineering 382C (Topic 2) may not both be counted.

**Topic 3: Verification and Validation of Software.** Evaluate software for correctness, efficiency, performance, and reliability. Electrical and Computer Engineering 382C (Topic 3) and Electrical Engineering 382C (Topic 3) may not both be counted.

**Topic 4: Software and Hardware Engineering Project Management.** Examine the requirements for a project management plan; role of the manager of the software development life cycle; economic and customer-driven factors. Electrical and Computer Engineering 382C (Topic 4) and Electrical Engineering 382C (Topic 4) may not both be counted.

**Topic 5: Large Software, Hardware, and Communications Systems Engineering.** Explore the techniques used to specify and design systems of software, hardware, and communications components. Create a requirements document and system specification. Electrical and Computer Engineering 382C (Topic 5) and Electrical Engineering 382C (Topic 5) may not both be counted.

**Topic 6: Software for Highly-Available Distributed Applications.** Electrical and Computer Engineering 382C (Topic 6) and Electrical Engineering 382C (Topic 6) may not both be counted.

**Topic 7: Software Architectures.** Explore software engineering approaches; scenario-based engineering processes to analyze problem domain; domain modeling and representations; and creation of component-based reference architecture providing an object-oriented representation of system requirements. Electrical and Computer Engineering 382C (Topic 7) and Electrical Engineering 382C (Topic 7) may not both be counted.

**Topic 9: Embedded Software Systems.** Examine dataflow models, uniprocessor and multiprocessor scheduling, hardware/software codesign, hierarchical finite state machines, synchronous languages, reactive systems, synchronous reactive languages, and heterogeneous systems. Electrical and Computer Engineering 382C (Topic 9) and Electrical Engineering 382C (Topic 9) may not both be counted.

**Topic 11: Requirements Engineering.** Electrical and Computer Engineering 382C (Topic 11) and Electrical Engineering 382C (Topic 11) may not both be counted.

**Topic 12: Multicore Computing.** Examine theoretical and practical aspects of designing multicore software systems; programming constructs for concurrent computation, openMP, sequential consistency, linearizability, lock-based synchronization, lock-free synchronization, wait-free synchronization, consensus number, software transactional memory, testing and debugging parallel programs, race detection, concurrent data structures such as stacks, queues, linked lists, hash tables and skiplists, formal models, temporal logic, reachability analysis, and parallel graph algorithms. Only one of the following may be counted: Electrical and Computer Engineering 382C (Topic 12), Electrical Engineering 382C (Topic 12), 382V (Topic: Multicore Computing).

**Topic 13: Mobile Computing.** Explore an overview of emerging research areas in mobile computing with a specific focus on the software engineering ramifications of mobile and pervasive computing technologies. Develop a solid foundation to support future discourse and research in the areas of mobile and pervasive computing, and skills to critically read research papers, assimilate information, find additional resources, and draw connections. Only one of the following may be counted: Electrical and Computer Engineering 382C (Topic 13), Electrical Engineering 382C (Topic 13), 382V (Topic: Mobile Computing).

**Topic 14: Software Evolution Principles.** Review program analysis techniques for evolving software; incremental testing, debugging, and verification; static and dynamic dependency analysis; program transformations; and software visualization. Only one of the following may be counted: Electrical and Computer Engineering 382C (Topic 14),

Electrical Engineering 382V (Topic: Software Evolution), 382V (Topic 1), 382C (Topic 14). Additional prerequisite: Knowledge in algorithms, concurrent and distributed systems, software testing, or consent of instructor.

**Topic 15: Middleware Architecture and Design.** Introduction to the design of distributed computing middleware, with a focus on architectural principles. Explore an overview of required functions of emerging middleware and how middleware is designed to support these functions. Examine particular domains such as middleware for mobile computing, middleware for embedded systems, and middleware for sensor networks. Electrical and Computer Engineering 382C (Topic 15) and Electrical Engineering 382C (Topic 15) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 16: Software Testing.** Examine basic concepts and techniques for testing software and finding bugs. Explore the testing process; unit, integration and system testing; manual and automatic techniques for generation of test inputs and validation of test outputs; and coverage criteria. Focus on functional testing. Only one of the following may be counted: Electrical and Computer Engineering 382C (Topic 16), Electrical Engineering 382C (Topic 16), 382V (Topic: Software Testing). Additional prerequisite: Consent of instructor.

**Topic 17: Algorithmic Foundations for Software Systems.** Examine complex data structures and algorithms, graph algorithms, performance analysis, correctness analysis, engineering effective techniques, and domain-specific methods, such as systematic or heuristic search. Only one of the following may be counted: Electrical and Computer Engineering 382C (Topic 17), Electrical and Computer Engineering 382C (Topic 17), 382V (Topic: Algor Fndtn Software Sys). Additional prerequisite: Consent of instructor.

**Topic 18: Computer Graphics.** Examine computer graphics, including in-depth treatments of techniques for realistic image synthesis, advanced geometric modeling methods, animation and dynamic simulation, scientific visualization, and high-performance graphics architectures. Only one of the following may be counted: Electrical and Computer Engineering 382C (Topic 18), Electrical Engineering 382C (Topic 18), 382V (Topic: Computer Graphics). Additional prerequisite: Consent of instructor.

### ECE 382L. Topics in Theory of Digital Systems.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Switching Theory.** Explore general theory and realization algorithms for combinational, sequential, and array logic. Electrical and Computer Engineering 382L (Topic 1) and Electrical Engineering 382L (Topic 1) may not both be counted.

**Topic 2: Graph Theory and Applications.** Examine elementary graph theory concepts; graph theory algorithms and applications in multicomputer architecture, switching and coding theory, data structures, computer networks, programming, algorithm analysis, diagnosis and fault tolerance. Electrical and Computer Engineering 382L (Topic 2) and Electrical Engineering 382L (Topic 2) may not both be counted.

### ECE 382M. Topics in Integrated Circuits and Systems.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: VLSI Testing.** Examine hardware and software reliability analysis of digital systems; testing, design for testability, self-diagnosis, fault-tolerant logic design, error-detecting and error-correcting codes. Electrical and Computer Engineering 382M (Topic 1) and Electrical Engineering 382M (Topic 1) may not both be counted.

**Topic 2: Dependable Computing.** Examine design techniques for reliable, fault-tolerant, fail-safe and fail-soft systems; fault diagnosis and fault avoidance methods at program and system levels;

experimental and commercial fault-tolerant computer systems. Electrical and Computer Engineering 382M (Topic 2) and Electrical Engineering 382M (Topic 2) may not both be counted.

**Topic 7: VLSI I.** Examine very-large scale integration (VLSI) circuit design. Explore complementary metal oxide semiconductor (CMOS) technology; static and dynamic CMOS combinational and sequential circuits; design of datapath elements; performance, power consumption, and testing. Use computer-aided design (CAD) tools for layout, timing analysis, synthesis, physical design, and verification. Electrical and Computer Engineering 382M (Topic 7) and Electrical Engineering 382M (Topic 7) may not both be counted.

**Topic 8: VLSI II.** Examine microelectronic systems architecture; VLSI circuit testing methods; integration of heterogeneous computer-aided design tools; wafer scale integration; advanced high-speed circuit design and integration. Electrical and Computer Engineering 382M (Topic 8) and Electrical Engineering 382M (Topic 8) may not both be counted.

**Topic 9: Simulation Methods in CAD and VLSI.** Examine techniques and algorithms for simulating large-scale digital and analog circuits. Electrical and Computer Engineering 382M (Topic 9) and Electrical Engineering 382M (Topic 9) may not both be counted.

**Topic 10: Synthesis of Digital Systems.** Explore automatic generation of gate-level implementations from hardware description language (HDL) specifications; optimization of two-level, multilevel, and sequential circuits for area, speed, and testability. Electrical and Computer Engineering 382M (Topic 10) and Electrical Engineering 382M (Topic 10) may not both be counted.

**Topic 11: Verification of Digital Systems.** Examine automatic verification of digital systems; formal models and specifications, equivalence checking, design verification, temporal logic, binary decision diagrams (BDDs), logical foundations, automata theory, recent developments. Electrical and Computer Engineering 382M (Topic 11) and Electrical Engineering 382M (Topic 11) may not both be counted.

**Topic 13: Analysis and Design of Digital Integrated Circuits.** Examine device and circuit-level aspects of metal oxide semiconductors (MOS) digital integrated circuit design. Electrical and Computer Engineering 382M (Topic 13) and Electrical Engineering 382M (Topic 13) may not both be counted.

**Topic 14: Analog Integrated Circuit Design.** Explore the analysis and design of analog integrated circuits; transistor models and integrated circuit technologies; layout techniques; noise; mismatches; current mirrors; differential amplifiers; frequency response and compensation; feedback and stability; nonlinear circuits; voltage references; and operational amplifiers using state-of-the-art computer-aided design (CAD) tools for design, simulation, and layout. Electrical and Computer Engineering 382M (Topic 14) and Electrical Engineering 382M (Topic 14) may not both be counted.

**Topic 16: Application-Specific Processing.** Examine techniques for the design and analysis of application-specific processors, including special purpose systems, embedded processors, and systems-on-chip. Electrical and Computer Engineering 382M (Topic 16) and Electrical Engineering 382M (Topic 16) may not both be counted.

**Topic 17: High-Level Synthesis of Digital Systems.** Examine the synthesis from high-level languages (C) to RTL; allocation, scheduling and binding algorithms, and optimizations under area and performance objectives and constraints. Electrical and Computer Engineering 382M (Topic 17) and Electrical Engineering 382M (Topic 17) may not both be counted.

**Topic 19: Mixed-Signal System Design and Modeling.** Explore architecture development for mixed-signal integrated circuits. Model analog and digital filters, data converters, and digital data receivers. Electrical and Computer Engineering 382M (Topic 19) and Electrical Engineering 382M (Topic 19) may not both be counted.

**Topic 20: System-on-Chip Design.** Examine the methodologies and tools for System-on-Chip (SoC) design, hardware/software co-design and co-verification; partitioning; real-time scheduling; hardware acceleration; high-level C-to-RTL synthesis; allocation, scheduling and binding algorithms for hardware synthesis; SoC integration, communication architectures and hardware/software interfacing; virtual prototyping and hardware/software co-simulation; FPGA prototyping of hardware/software systems. Electrical and Computer Engineering 382M (Topic 20) and Electrical Engineering 382M (Topic 20) may not both be counted.

**Topic 22: VLSI Physical Design Automation.** Examine algorithms and methodologies in circuit partitioning, floorplanning, global placement, detailed placement, global routing, detailed routing, clock tree routing, and power and ground routing. Explore new trends in physical design. Only one of the following may be counted: Electrical and Computer Engineering 382M (Topic 22), Electrical Engineering 382M (Topic 22), 382V (Topic: VLSI Physical Design Automatr). Additional prerequisite: Consent of instructor.

**Topic 23: Low-Power and Robustness Design.** Examine nanometer transistors and models; design-time and runtime techniques for dynamic and standby power minimization; power minimization at circuit and architecture levels; power minimization for logic, memory, and interconnect; sources of variability; statistical data collection and analysis of variance; statistical circuit simulation and timing analysis; manufacturability and resolution enhancement techniques. Electrical and Computer Engineering 382M (Topic 23) and Electrical Engineering 382M (Topic 23) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 24: Analog-Digital Data Conversion Circuits.** Explore the analysis and design of analog-digital data conversion circuits including both architectural-level and transistor-level design considerations; design trade-offs among power, noise, linearity, and speed; sample-and-hold circuits and voltage comparators; noise analysis for mixed-signal circuits; flash, pipelined, successive approximation, and delta-sigma oversampling analog-to-digital converters (ADCs); resistor-string, R-2R, current-steering, and delta-sigma oversampling digital-to-analog converters (DACs); and the use of state-of-the-art computer-aided design (CAD) tools for analysis, design, and validation. Only one of the following may be counted: Electrical and Computer Engineering 382M (Topic 24), Electrical Engineering 382M (Topic 24), 382V (Topic: Data Converters). Additional prerequisite: Consent of instructor.

**Topic 25: Radio Frequency Integrated Circuit Design.** Examine noise and distortion in devices and circuits; amplifier design techniques for low noise, variable gain, high output power, and high dynamic range; analysis and design of integrated mixers and other frequency converters; voltage and current mode mixers; rectifiers; integrated oscillators for generating fixed and variable frequencies; relevant performance metrics and trade-offs; noise in linear and non-linear time varying circuits; circuit techniques for linearity enhancement; design optimization in bipolar and complementary metal-oxide-semiconductor (CMOS) technologies. Explore transceiver architectures. Only one of the following may be counted: Electrical and Computer Engineering 382M (Topic 25), Electrical Engineering 382M (Topic 25), 382V (Topic: Radio Freq Integ Circuit Dsgn). Additional prerequisite: Consent of instructor.

**Topic 26: VLSI CAD and Optimization.** Explore interconnect and gate modeling; timing analysis; interconnect topology optimization; gate sizing; buffer insertion and sizing; wire sizing and planning; crosstalk analysis and mitigation; clock network synthesis; interconnect planning; modern placement techniques; congestion mitigation; low power optimization; design for manufacturability and reliability; design and computer-aided design (CAD) for emerging technologies. Only one of the following may be counted: Electrical and Computer

Engineering 382M (Topic 26), Electrical Engineering 382M (Topic 21), 382N (Topic 26). Additional prerequisite: Consent of instructor.

### **ECE 382N. Topics in Architecture, Computer Systems, and Embedded Systems.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Computer Architecture.** Examine characteristics of instruction set architecture and microarchitecture; physical and virtual memory; caches and cache design; interrupts and exceptions; integer and floating-point arithmetic; I/O processing; buses; pipelining, out-of-order execution, branch prediction, and other performance enhancements; design trade-offs; and case studies of commercial microprocessors. Participate in an individual laboratory. Electrical and Computer Engineering 382N (Topic 1) and Electrical Engineering 382N (Topic 1) may not both be counted.

**Topic 3: Interconnection Networks.** Explore topologies, routing algorithms, permutations, resource allocations, performance evaluation, fault tolerance, VLSI design, parallel and distributed algorithms, languages for specifying protocols, and distributed operating systems. Electrical and Computer Engineering 382N (Topic 3) and Electrical Engineering 382N (Topic 3) may not both be counted.

**Topic 4: Advanced Embedded Microcontroller Systems.** Examine hardware and software design of advanced microcontroller systems; embedded applications, Linux drivers, handlers, and kernel modules, file systems, debugging; hardware acceleration, intelligent sensors and I/O subsystems, embedded field-programmable gate array (FPGAs), and networking-on-chip. Electrical and Computer Engineering 382N (Topic 4) and Electrical Engineering 382N (Topic 4) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 10: Parallel Computer Architecture.** Study parallel computing, including models, algorithms, languages, compilers, interconnection networks, and architectures. Electrical and Computer Engineering 382N (Topic 10) and Electrical Engineering 382N (Topic 10) may not both be counted.

**Topic 11: Distributed Systems.** Examine tracking dependency, mutex algorithms, snapshot algorithms, leader election, spanning tree, distributed algorithms, Map-Reduce, slicer, termination detection, message order, synchronizers, self-stabilization, knowledge, consensus, Byzantine agreement, fault-tolerance. Electrical and Computer Engineering 382N (Topic 11) and Electrical Engineering 382N (Topic 11) may not both be counted.

**Topic 14: High-Speed Computer Arithmetic I.** Explore the design of computer arithmetic units: fast adders, fast multipliers, dividers, and floating-point arithmetic units. Electrical and Computer Engineering 382N (Topic 14) and Electrical Engineering 382N (Topic 14) may not both be counted.

**Topic 15: High-Speed Computer Arithmetic II.** Explore advanced computer arithmetic, including error correcting coding, residue number systems, CORDIC arithmetic, and VLSI implementation. Electrical and Computer Engineering 382N (Topic 15) and Electrical Engineering 382N (Topic 15) may not both be counted. Additional prerequisite: Electrical and Computer Engineering 382N (Topic 14) (or Electrical Engineering 382N (Topic 14)).

**Topic 16: Distributed Information System Security.** Electrical and Computer Engineering 382N (Topic 16) and Electrical Engineering 382N (Topic 16) may not both be counted.

**Topic 17: Superscalar Microprocessor Architectures.** Examine superscalar processor architectures; instruction level parallelism; machine level parallelism; superscalar organization; instruction windows; reservation station; register data flow; register renaming; reorder buffers; memory disambiguation; branch prediction; value prediction; instruction reuse techniques; comparison with very long instruction word (VLIW), single instruction-multiple data (SIMD),

and multiple instruction-multiple data (MIMD) approaches; memory systems for superscalar processors; design for performance and power efficiency; performance evaluation of superscalar processors; and case studies. Electrical and Computer Engineering 382N (Topic 17) and Electrical Engineering 382N (Topic 17) may not both be counted.

**Topic 18: Distributed Systems II.** Electrical and Computer Engineering 382N (Topic 18) and Electrical Engineering 382N (Topic 18) may not both be counted.

**Topic 19: Microarchitecture.** Explore concepts in architecture and microarchitecture. Examine critical path, bread-and-butter design, partitioning, timing, and pipelining; data path, state machine, microsequencer, microinstruction, microcode, microprogramming, and CAD tools; pipelining, branch prediction, and out-of-order execution; trace cache, block-structured ISA, simultaneous multithreading, and clustering; single instruction-multiple data (SIMD), very long instruction word (VLIW), decoupled access/execute (DAE), high performance switch (HPS), and data flow. survey the impact of compiler technology, reduced instruction set computing (RISC), and predicated execution; multiprocessor issues, cache coherency, memory consistency, and graphics processing units (GPUs); IEEE Floating Point, and example state-of-the-art microarchitectures. Electrical Engineering 382N (Topic 19) and Electrical Engineering 382N (Topic 19) may not both be counted.

**Topic 20: Computer Architecture: Parallelism and Locality.** Examine hardware and software parallelism and locality mechanisms, and their impact on processor performance, bandwidth, and power requirements; architectures and microarchitectures of throughput-oriented processors that rely on parallelism, locality, and hierarchical control; parallel memory systems; and streaming and bulk execution and programming models. Explore programming and measuring performance on massively parallel processors. Electrical and Computer Engineering 382N (Topic 20) and Electrical Engineering 382N (Topic 20) may not both be counted.

**Topic 21: Computer Performance Evaluation and Benchmarking.** Examine performance analysis of microprocessors and computer architectures; impact of performance analysis on microprocessor design; techniques for analysis of architectural trade-offs; performance and power modeling; performance metrics; benchmarks, measurement tools, and techniques; simulation, challenges in full-system simulation; instruction profiling; trace generation; sampling; simulation points; analytical modeling; calibration of microprocessor performance models; workload characterization; benchmarks for emerging programming paradigms; synthetic benchmarks; statistical methods to compare alternatives; linear regression; and design of experiments. Only one of the following may be counted: Electrical and Computer Engineering 382N (Topic 21), Electrical Engineering 382M (Topic 15), 382N (Topic 21). Additional prerequisite: Consent of instructor.

**Topic 22: Computer Architecture: User System Interplay.** Explore fundamental principles in computer architecture focusing on the hardware and the compiler, as well as developing an understanding of their interplay with each other and with usage and programming models. Examine the development of several system families and follow common threads of identifying the intended users, system properties, and evaluation methodology. Review case studies including PCs and workstations with general-purpose processors, large parallel systems, graphics processors, and more experimental architectures such as stream processing and transactional memory. Electrical and Computer Engineering 382N (Topic 22) and Electrical Engineering 382N (Topic 22) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 23: Embedded System Design and Modeling.** Examine the methods and techniques for formal specification, modeling, and system-level design of embedded systems; models of computation

(MoCs), concurrency and time including finite state machines (FSMs), process networks and dataflow; system-level design languages (SLDLs) and methodologies; system-level synthesis algorithms for partitioning, scheduling and design space exploration; system refinement and implementation models; virtual platform prototyping, system simulation and transaction-level modeling (TLM); hardware and software synthesis; system-level design tools and case studies. Electrical and Computer Engineering 382N (Topic 23) and Electrical Engineering 382N (Topic 23) may not both be counted.

**Topic 24: Code Generation and Optimization.** Generate executable machine code understood by machines from program source code understood by programmers. Explore program optimization for performance, energy efficiency and reliability; code generation and optimization for different types of hardware; and runtime systems and just-in-time compilation. Only one of the following may be counted: Electrical and Computer Engineering 382N (Topic 24), Electrical Engineering 382N (Topic 24), 382V (Topic: Code Generation & Optimization). Additional prerequisite: Consent of instructor.

**Topic 25: Runtime Systems.** Examine fundamentals of runtime systems; design, implementation, and optimization of emulation engines; interpreters; binary translators; dynamic binary optimization; high-level language virtual machines; co-designed virtual machines; system-level virtual machines; and processor virtualization. Only one of the following may be counted: Electrical and Computer Engineering 382N (Topic 25), Electrical Engineering 382N (Topic 25), 382V (Topic: Dynamic Compilation). Additional prerequisite: Basic knowledge of computer architecture and operating systems; and consent of instructor.

### **ECE 382V. Topics in Computer Engineering.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 2: Large-Scale Learning.** Examine feedforward neural networks, convolutional neural networks, deep learning training by backpropagation, interpretability of deep neural networks, and prediction and overfitting. Explore statistical Learning theory, unsupervised machine learning, deep generative unsupervised models, and generative adversarial networks and autoencoders. Apply deep learning using Python, Tensorflow and Keras. Electrical and Computer Engineering 382V (Topic 2) and Electrical Engineering 382V (Topic 2) may not both be counted.

### **ECE 383L. Electromagnetic Field Theory.**

Examine vector space, Green's function; equivalence theorem; vector potentials; plane, cylindrical, and spherical waves; and radiation and scattering. Three lecture hours a week for one semester. Electrical and Computer Engineering 383L and Electrical Engineering 383L may not both be counted. Prerequisite: Graduate standing in electrical engineering.

### **ECE 383M. Microwave Field Theory.**

Examine guided waves in cylindrical waveguides, microstrip lines, dielectric and optical waveguides; integrated circuits; and periodic structures. Three lecture hours a week for one semester. Electrical and Computer Engineering 383M and Electrical Engineering 383M may not both be counted. Prerequisite: Graduate standing in electrical engineering.

### **ECE 383N. Theory of Electromagnetic Fields: Electrodynamics.**

Explore intermediate electromagnetic field theory, with emphasis on the interaction of fields and material media, including anisotropic media. Three lecture hours a week for one semester. Electrical and Computer

Engineering 383N and Electrical Engineering 383N may not both be counted. Prerequisite: Graduate standing.

### **ECE 383P. Topics in Optical Processing and Laser Communications.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in engineering, mathematics, chemistry, or physics.

**Topic 1: Fourier Optics.** Examine Fourier transforming properties of lenses, frequency analysis of optical imaging systems, and spatial filtering. Explore optical information processing and holography. Electrical and Computer Engineering 382P (Topic 1) and Electrical Engineering 382P (Topic 1) may not both be counted.

**Topic 3: Techniques of Laser Communications.** Examine optical propagation in crystalline media, harmonic generation, frequency conversion, and modulation systems. Electrical and Computer Engineering 383P (Topic 3) and Electrical Engineering 383P (Topic 3) may not both be counted.

**Topic 4: Fiber and Integrated Optics I.** Examine waveguiding in slabs, cylinders, and fibers; optical fiber communications principles; mode coupling; guided-wave optical sources, modulators, and detectors. Electrical and Computer Engineering 383P (Topic 4) and Electrical Engineering 383P (Topic 4) may not both be counted.

**Topic 5: Fiber and Integrated Optics II.** Examine principles and practices of guided-wave optical sensor technology. Explore nonlinear optical effects in fibers, including amplification and fiber lasers. Electrical and Computer Engineering 383P (Topic 5) and Electrical Engineering 383P (Topic 5) may not both be counted.

**Topic 6: Semiconductor Optoelectronic Devices.** Examine semiconductor materials and nanomaterials growth. Review light-matter interaction in bulk and nanostructures, including both band-to-band and intersubband transitions. Discuss band structure in real-space and k-space. Explore photonic devices and their design: light-emitting diodes (LEDs), photodetectors, modulators, solar cells, and semiconductor lasers (diode and quantum cascade). Electrical and Computer Engineering 382P (Topic 6) and Electrical Engineering 382P (Topic 6) may not both be counted. Additional prerequisite: Knowledge in electromagnetic engineering, quantum theory of electronic materials, and solid-state electronic devices.

**Topic 8: Optical Communications.** Explore the concepts behind research and development in optical communications and optical interconnects. Examine device physics and system applications. Discuss advanced technology solutions and innovative manufacturing processes to deliver optical passive and active micro- and nanodevices that enable the deployment of short-haul and metropolitan area all-optical networks for communications and for sensing networks. Electrical and Computer Engineering 382P (Topic 8) and Electrical Engineering 382P (Topic 8) may not both be counted. Additional prerequisite: Knowledge in electromagnetic engineering and quantum theory of electronic materials.

### **ECE 383V. Topics in Electromagnetics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Nanophotonics.** Examine the propagation of light in photonic crystals, plasmonic structures, and quantum dots; modified light-matter interaction at nanoscales, including emission, absorption, and scattering; evanescent tunneling; and temporal coupled-mode theory. Electrical and Computer Engineering 383V (Topic 1) and Electrical Engineering 383V (Topic 1) may not both be counted. Additional prerequisite: Knowledge in electromagnetic engineering and quantum theory of electronic materials.

## ECE 384N. Topics in Acoustics.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Acoustics I.** Same as Mechanical Engineering 384N (Topic 1). Plane waves in fluids; transient and steady-state reflection and transmission; lumped elements; refraction; strings, membranes, and rooms; horns; ray acoustics; absorption and dispersion. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 1), Electrical Engineering 384N (Topic 1), Mechanical Engineering 384N (Topic 1).

**Topic 2: Acoustics II.** Same as Mechanical Engineering 384N (Topic 2). Spherical and cylindrical waves, radiation and scattering, multipole expansions, Green's functions, waveguides, sound beams, Fourier acoustics, Kirchhoff theory of diffraction, and arrays. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 2), Electrical Engineering 384N (Topic 2), Mechanical Engineering 384N (Topic 2).

**Topic 3: Electromechanical Transducers.** Same as Mechanical Engineering 384N (Topic 3). Modeling, analysis, and design of transducers for reception and transmission of acoustic and vibration signals; dynamics of coupled electrical, mechanical, and acoustical systems; and the effects of transducer characteristics on fidelity and efficiency of transduction. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 3), Electrical Engineering 384N (Topic 3), Mechanical Engineering 384N (Topic 3).

**Topic 4: Nonlinear Acoustics.** Same as Mechanical Engineering 384N (Topic 4). Waveform distortion and shock formation, harmonic generation and spectral interactions, effects of absorption and dispersion, parametric arrays, Rankine-Hugoniot relations, weak shock theory, numerical modeling, radiation pressure, and acoustic streaming. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 4), Electrical Engineering 384N (Topic 4), Mechanical Engineering 384N (Topic 4).

**Topic 5: Underwater Acoustics.** Same as Mechanical Engineering 384N (Topic 5). Acoustic properties of the ocean; acoustic propagation, reflection, reverberation, scattering and target strength; ocean noise; introduction to array and signal processing; basics of sonar design. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 5), Electrical Engineering 384N (Topic 5), Mechanical Engineering 384N (Topic 5).

**Topic 6: Architectural Acoustics.** Same as Mechanical Engineering 384N (Topic 6). Human perception of sound, principles of room acoustics, sound-absorptive materials, transmission between rooms, and acoustical design of enclosed spaces. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 6), Electrical Engineering 384N (Topic 6), Mechanical Engineering 384N (Topic 6).

**Topic 7: Ultrasonics.** Same as Mechanical Engineering 384N (Topic 7). Acoustic wave propagation in fluids, elastic solids, and tissue; transducers, arrays, and beamforming; nondestructive evaluation; and acoustical imaging. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 7), Electrical Engineering 384N (Topic 7), Mechanical Engineering 384N (Topic 7).

**Topic 8: Wave Phenomena.** Same as Mechanical Engineering 384N (Topic 8). Fourier acoustics and angular spectra; nearfield acoustical holography; Fraunhofer, Fresnel, and parabolic approximations; sound beams; Green's functions; Born approximation; propagation and scattering in moving, periodic, and random media. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 8), Electrical Engineering 384N (Topic 8), Mechanical Engineering 384N (Topic 8), 397 (Topic: Wave Phenomena).

## ECE 385J. Topics in Biomedical Engineering.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in engineering and consent of instructor.

**Topic 3: Bioelectric Phenomena.** Same as Biomedical Engineering 384J (Topic 4). Examines the physiological bases of bioelectricity and the techniques required to record bioelectric phenomena both intracellularly and extracellularly; the representation of bioelectric activity by equivalent dipoles and the volume conductor fields produced. Only one of the following may be counted: Biomedical Engineering 384J (Topic 4), Electrical and Computer Engineering 385J (Topic 3), Electrical Engineering 385J (Topic 3).

**Topic 9: Laser-Tissue Interaction: Thermal.** Same as Biomedical Engineering 381J (Topic 1). The thermal response of random media in interaction with laser irradiation. Calculation of the rate of heat production caused by direct absorption of the laser light, thermal damage, and ablation. Only one of the following may be counted: Biomedical Engineering 381J (Topic 1), Electrical and Computer Engineering 385J (Topic 9), Electrical Engineering 385J (Topic 9).

**Topic 15: Biosignal Analysis.** Same as Biomedical Engineering 384J (Topic 3). Theory and classification of biological signals such as EEG, EKG, and EMG. Data acquisition and analysis procedures for biological signals, including computer applications. Only one of the following may be counted: Biomedical Engineering 384J (Topic 3), Electrical and Computer Engineering 385J (Topic 15), Electrical Engineering 385J (Topic 15).

**Topic 16: Laser-Tissue Interaction: Optical.** Same as Biomedical Engineering 381J (Topic 2). The optical behavior of random media such as tissue in interaction with laser irradiation. Approximate transport equation methods to predict the absorption and scattering parameters of laser light inside tissue. Port-wine stain treatment; cancer treatment by photochemotherapy; and cardiovascular applications. Only one of the following may be counted: Biomedical Engineering 381J (Topic 2), Electrical and Computer Engineering 385J (Topic 16), Electrical Engineering 385J (Topic 16).

**Topic 17: Biomedical Instrumentation II: Real-Time Computer-Based Systems.** Same as Biomedical Engineering 384J (Topic 2). Design, testing, patient safety, electrical noise, biomedical measurement transducers, therapeutics, instrumentation electronics, microcomputer interfaces, and embedded systems. Participate in an individual laboratory. Only one of the following may be counted: Biomedical Engineering 384J (Topic 2), Electrical and Computer Engineering 385J (Topic 17), Electrical Engineering 385J (Topic 17).

**Topic 18: Imaging Signals and Systems.** Same as Biomedical Engineering 381J (Topic 3). Physical principles and signal processing techniques used in thermographic, ultrasonic, and radiographic imaging, including image reconstruction from projections such as CT scanning, MRI, and millimeter wave determination of temperature profiles. Only one of the following may be counted: Biomedical Engineering 381J (Topic 3), Electrical and Computer Engineering 385J (Topic 18), Electrical Engineering 385J (Topic 18).

**Topic 23: Optical Spectroscopy.** Same as Biomedical Engineering 381J (Topic 4). Measurement and interpretation of spectra: steady-state and time-resolved absorption, fluorescence, phosphorescence, and Raman spectroscopy in the ultraviolet, visible, and infrared portions of the spectrum. Only one of the following may be counted: Biomedical Engineering 381J (Topic 4), Electrical and Computer Engineering 385J (Topic 23), Electrical Engineering 385J (Topic 23).

**Topic 26: Therapeutic Heating.** Same as Biomedical Engineering 381J (Topic 5). Engineering aspects of electromagnetic fields that have therapeutic applications: diathermy (short wave, microwave, and ultrasound), electrosurgery (thermal damage processes), stimulation of excitable tissue, and electrical safety. Only one of the following may be counted: Biomedical Engineering 381J (Topic 5), Electrical and

Computer Engineering 385J (Topic 26), Electrical Engineering 385J (Topic 26).

**Topic 28: Noninvasive Optical Tomography.** Same as Biomedical Engineering 381J (Topic 6). Basic principles of optical tomographic imaging of biological materials for diagnostic or therapeutic applications. Optical-based tomographic imaging techniques including photothermal, photoacoustic, and coherent methodologies. Only one of the following may be counted: Biomedical Engineering 381J (Topic 6), Electrical and Computer Engineering 385J (Topic 28), Electrical Engineering 385J (Topic 28).

**Topic 31: Biomedical Instrumentation I.** Same as Biomedical Engineering 384J (Topic 1). Application of electrical engineering techniques to analysis and instrumentation in biological sciences: pressure, flow, temperature measurement; bioelectrical signals; pacemakers; ultrasonics; electrical safety; electrotherapeutics. Only one of the following may be counted: Biomedical Engineering 384J (Topic 1), Electrical and Computer Engineering 385J (Topic 31), Electrical Engineering 385J (Topic 31).

**Topic 32: Projects in Biomedical Engineering.** Same as Biomedical Engineering 384J (Topic 5). An in-depth examination of selected topics, such as optical and thermal properties of laser interaction with tissue; measurement of perfusion in the microvascular system; diagnostic imaging; interaction of living systems with electromagnetic fields; robotic surgical tools; ophthalmic instrumentation; noninvasive cardiovascular measurements. Only one of the following may be counted: Biomedical Engineering 384J (Topic 5), Electrical and Computer Engineering 385J (Topic 32), Electrical Engineering 385J (Topic 32). Additional prerequisite: Biomedical Engineering 384J (Topic 1) or Electrical and Computer Engineering 385J (Topic 31) (or Electrical Engineering 385J (Topic 31)).

**Topic 33: Neurophysiology/Prosthesis Design.** Same as Biomedical Engineering 384J (Topic 6). The structure and function of the human brain. Discussion of selected neurological diseases in conjunction with normal neurophysiology. Study of neuroprosthesis treatments and design philosophy, functional neural stimulation, and functional muscular stimulation. Only one of the following may be counted: Biomedical Engineering 385J (Topic 6), Electrical and Computer Engineering 385J (Topic 33), Electrical Engineering 385J (Topic 33).

**Topic 35: Brain-Computer Interaction.** Examine the architecture of a brain-computer interface (BCI), the brain signals that can be recorded as input to a BCI, and the interaction paradigms where these signals can be decoded and exploited. Study the design principles of complex brain-controlled devices, with an emphasis on electroencephalogram (EEG) signals, the most common source for BCI. Investigate how to enhance EEG signal-to-noise ratio, and techniques to decode subjects' intents and cognitive states. Electrical and Computer Engineering 385J (Topic 35) and Electrical Engineering 385V (Topic: Brain Computer Interaction) may not both be counted. Additional prerequisite: Undergraduate courses in data mining or data science principles or the equivalent, and undergraduate course in digital signal processing or the equivalent; or consent of instructor.

### **ECE 386C. Software Architecture.**

Three lecture hours a week for one semester. Electrical and Computer Engineering 386C and Electrical Engineering 386C may not both be counted. Prerequisite: Graduate standing.

### **ECE 390C. Statistical Methods in Engineering and Quality Assurance.**

Examine the interpretation of data from designed experiments and production processes. Explore subjects including probability distributions, confidence intervals, analysis of variance, hypothesis testing, factorial designs, and quality control data. Three lecture hours a week for one semester. Electrical and Computer Engineering 390C and Electrical Engineering 390C may not both be counted. Prerequisite:

Graduate standing in engineering and a course in probability and statistics.

### **ECE 390V. Topics in Manufacturing Systems Engineering.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ECE 391C. Technical Entrepreneurship.**

Examine the technology-based company: entrepreneurship, intrapreneurship, strategic planning, finance, marketing, sales, operations, research and development, manufacturing, and management. Form hypothetical companies in a team and simulate their ventures over an extended period. Three lecture hours a week for one semester. Electrical and Computer Engineering 391C and Electrical Engineering 391C may not both be counted. Prerequisite: Graduate standing.

### **ECE 392C. Software Testing.**

Three lecture hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 392C, Electrical Engineering 382V (Topic: Software Testing), 392C. Prerequisite: Graduate standing.

### **ECE 392K. Antenna Theory and Practice.**

Explore modern antenna systems for receiving and transmitting, including driven and parasitic arrays, horns, parabolic and other antennas. Three lecture hours a week for one semester. Electrical and Computer Engineering 392K and Electrical Engineering 392K may not both be counted. Prerequisite: Graduate standing in electrical engineering and knowledge in electromagnetic engineering.

### **ECE 392L. Computational Electromagnetics.**

Explore fundamental computational modeling and analysis techniques for applications in antennas, microwave circuits, biomedical engineering, and geophysics. Focus on boundary-value problem formulation, numerical methods, computer implementation, and error quantification. Examine differential and integral equation-based methods for solving Maxwell's equations in frequency and time domains. Three lecture hours a week for one semester. Electrical and Computer Engineering 392L and Electrical Engineering 392L may not both be counted. Prerequisite: Graduate standing.

### **ECE 392N. Principles of Radar.**

Explore the fundamentals of radar, with an emphasis on electromagnetics and signal processing. Examine radar range equation, antennas, propagation and target scattering, matched filter, ambiguity function, waveform design, pulse compression, microwave imaging, synthetic aperture radar, and inverse synthetic aperture radar (ISAR). Three lecture hours a week for one semester. Electrical and Computer Engineering 392N and Electrical Engineering 392N may not both be counted. Prerequisite: Graduate standing.

### **ECE 393C. Topics in Plasma Dynamics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in engineering, physics, chemistry, or mathematics.

**Topic 1: Introduction to Plasma Dynamics.** Examine plasma properties, including collective effects, Debye shielding, quasineutrality, the plasma frequency, and collisions. Explore single particle motions in electric and magnetic fields. Study particle drifts, adiabatic invariants, and cyclotron resonance. Electrical and Computer Engineering 393C (Topic 1) and Electrical Engineering 393C (Topic 1) may not both be counted.

### **ECE 394. Topics in Power System Engineering.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in electrical engineering, or graduate standing and consent of instructor.

**Topic 7: Power Electronic Devices and Systems.** Explore power electronic components and circuits; high-voltage, direct current (HVDC) converters; electronic drives for machines; AC/DC converters. Electrical and Computer Engineering 394 (Topic 7) and Electrical Engineering 394 (Topic 7) may not both be counted.

**Topic 9: Power Quality.** Examine electrical transients, switching surges, lightning, and other phenomena that cause deviations in 60-hertz sinusoidal voltages and currents. Electrical and Computer Engineering 394 (Topic 9) and Electrical Engineering 394 (Topic 9) may not both be counted.

**Topic 14: Electrical Transients in Power Systems.** Explore analysis and modeling of electrical transient phenomena in power systems, traveling wave, insulation coordination, and overvoltage protection. Electrical and Computer Engineering 394 (Topic 14) and Electrical Engineering 394 (Topic 14) may not both be counted.

**Topic 15: Power System Operations and Control.** Only one of the following may be counted: Electrical and Computer Engineering 394 (Topic 15), Electrical Engineering 394 (Topic 15), 394V (Topic: Power Sys Operatns/Control).

**Topic 16: Restructured Electricity Markets: Locational Marginal Pricing.** Examine locational marginal pricing (LMP) model of electricity markets. Explore market dispatch formulated as an optimization problem, unit commitment issues, and pricing rules and incentives in markets; energy-price and transmission-price risk hedging and energy network models; and revenue adequacy of financial transmission rights, a mixed-integer programming approach to unit commitment, the representation of voltage constraints into market models, and the design of electricity markets to mitigate market power. Only one of the following may be counted: Electrical and Computer Engineering 394 (Topic 16), Electrical Engineering 394 (Topic 16), 394V (Topic: Res Elect Mrkts: Loc Marg Pric).

**Topic 17: Restructured Electricity Markets: Market Power.** Explore the definition and analysis of market power, especially as an issue in the design and functioning of electricity markets. Focus on transmission constraints and offer-based markets that involve locational marginal pricing. Electrical and Computer Engineering 394 (Topic 17) and Electrical Engineering 394 (Topic 17) may not both be counted.

**Topic 18: Electric Machinery and Drive Systems.** Explore electric drives and machines used in commercial and industrial applications. Examine magnetic circuits and magnetic materials; electromechanical energy conversion principles; rotating and linear machine concepts, including synchronous, induction, DC, and variable reluctance; and control strategies. Only one of the following may be counted: Electrical and Computer Engineering 394 (Topic 18), Electrical Engineering 394 (Topic 13), 394 (Topic 18).

### **ECE 394J. Topics in Energy Systems.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Power System Engineering I.** Examine physical features, operational characteristics, and analytical models for major electric power systems and components. Electrical and Computer Engineering 394J (Topic 1) and Electrical Engineering 394J (Topic 1) may not both be counted.

**Topic 2: Power System Engineering II.** Explore advanced techniques for solving large power networks; load flow, symmetrical components, and short circuit analysis. Electrical and Computer Engineering 394J (Topic 2) and Electrical Engineering 394J (Topic 2) may not both be counted.

**Topic 9: Wind Energy Systems.** Examine wind resource characteristics and assessments; wind turbine technologies (fixed and variable-speed turbines); wind power transmission; integration and interconnection issues; and reliability impacts. Electrical and Computer Engineering 394J (Topic 9) and Electrical Engineering 394J (Topic 9) may not both be counted.

**Topic 10: Distributed Generation Technologies.** Examine distributed generation and microgrids elements; microsources; energy storage; power electronics interfaces; DC and AC architectures; economics, operation, stabilization, and control; reliability and availability aspects; interaction between microgrids and bulk power grids; and smart grids. Electrical and Computer Engineering 394J (Topic 10) and Electrical Engineering 394J (Topic 10) may not both be counted. Additional prerequisite: Knowledge of fundamentals of power electronics and power systems, familiarity with modeling and simulation techniques, and knowledge of how to use professional publications.

**Topic 11: Advanced Power Electronics.** Examine modeling and analysis of DC-to-DC converters; analysis of switched systems; real components; power electronics converters for renewable and alternative energy generation and storage; maximum power point tracking; grid interaction; islanding; linear and nonlinear control methods in power electronics; and an introduction to reliability. Electrical and Computer Engineering 394J (Topic 11) and Electrical Engineering 394J (Topic 11) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 12: Modeling and Simulation of Wind Power Plants.** Explore the analysis, modeling, and simulation of wind turbines and wind farms; fundamentals of wind turbines and technologies, reference-frame theory, dynamic models of induction and synchronous machines, fixed-speed direct-connect, wide-slip, doubly-fed, full-converter wind turbines, operation and control, and interconnection issues. Electrical and Computer Engineering 394J (Topic 12) and Electrical Engineering 394J (Topic 12) may not both be counted. Additional prerequisite: Consent of instructor.

### **ECE 394L. Power Systems Apparatus and Laboratory.**

Examine the fundamentals of power systems emphasized through laboratory experiments. Explore complex power, three-phase circuits, per-unit system, transformers, synchronous machines, transmission line models, steady-state analysis, induction machines, capacitor banks, protective relaying, surge arrestors, and instrumentation. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 394L, Electrical Engineering 394L, 394V (Topic: Power Systems Apparatus and Laboratory). Prerequisite: Graduate standing.

### **ECE 396K. Topics in Solid-State Device Theory.**

Explore the theory of electron, magnetic, and electro-optic devices. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Metal Oxide Semiconductor Devices: Physics and Technology.** Electrical and Computer Engineering 396K (Topic 1) and Electrical Engineering 396K (Topic 1) may not both be counted.

**Topic 2: Semiconductor Physics.** Introduction to the fundamental physics of charge carrier states in semiconductors, charge carrier interactions among themselves and with the environment, and charge transport in semiconductors and their heterostructures. Electrical and Computer Engineering 396K (Topic 2) and Electrical Engineering 396K (Topic 2) may not both be counted. Additional prerequisite: An undergraduate-level introduction to solid-state devices and quantum mechanics.

**Topic 4: Synthesis, Growth, and Analysis of Electronic Materials.** Electrical and Computer Engineering 396K (Topic 4) and Electrical

Engineering 396K (Topic 4) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 5: Superconducting Electronic Devices.** Electrical and Computer Engineering 396K (Topic 5) and Electrical Engineering 396K (Topic 5) may not both be counted.

**Topic 6: Magnetic Phenomena in Materials.** Electrical and Computer Engineering 396K (Topic 6) and Electrical Engineering 396K (Topic 6) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 7: Metal Oxide Semiconductor Integrated Circuit Process Integration.** Electrical and Computer Engineering 396K (Topic 7) and Electrical Engineering 396K (Topic 7) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 8: Ultra-Large-Scale Integration Techniques.** Examine integrated circuit processing; crystal growth and wafer preparation; epitaxial growth; oxidation, diffusion, and ion implantation; thin-film deposition techniques; and lithography and etching. Participate in an individual laboratory. Electrical and Computer Engineering 396K (Topic 8) and Electrical Engineering 396K (Topic 8) may not both be counted.

Additional prerequisite: Knowledge in solid-state electronic devices.

**Topic 9: Localized versus Itinerant Electrons in Solids.** Same as Mechanical Engineering 386R (Topic 1). Description of electrons, from free atoms to crystals; band theory contrasted with crystal-field theory; evolution of electronic properties on passing from magnetic insulators to normal metals, from ionic to covalent solids, from single-valent compounds to mixed-valent systems; electron-lattice interactions and phase transitions; many examples. Only one of the following may be counted: Electrical and Computer Engineering 396K (Topic 9), Electrical Engineering 396K (Topic 9), Mechanical Engineering 386R (Topic 1). Additional prerequisite: A semester of quantum mechanics and a semester of solid-state science or technology.

**Topic 10: Ionic Conductors.** Same as Mechanical Engineering 386T (Topic 1). Only one of the following may be counted: Mechanical Engineering 386T (Topic 1), Electrical Engineering 396K (Topic 10), Electrical and Computer Engineering 396K (Topic 10).

**Topic 11: High-Temperature Superconductors.** Same as Mechanical Engineering 386T (Topic 2). Only one of the following may be counted: Mechanical Engineering 386T (Topic 2), Electrical Engineering 396K (Topic 11), Electrical and Computer Engineering 396K (Topic 11).

**Topic 12: Catalytic Electrodes.** Same as Mechanical Engineering 386T (Topic 3). Only one of the following may be counted: Mechanical Engineering 386T (Topic 3), Electrical and Computer Engineering 396K (Topic 12), Electrical Engineering 396K (Topic 12).

**Topic 13: Magnetic Materials.** Same as Mechanical Engineering 386T (Topic 4). Only one of the following may be counted: Electrical and Computer Engineering 396K (Topic 13), Electrical Engineering 396K (Topic 13), Mechanical Engineering 386T (Topic 4).

**Topic 14: Optical Interconnects.** Electrical and Computer Engineering 396K (Topic 14) and Electrical Engineering 396K (Topic 14) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 15: Optoelectronics Integrated Circuits.** Electrical and Computer Engineering 396K (Topic 15) and Electrical Engineering 396K (Topic 15) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 16: Semiconductor Lasers.** Examine the principles of compound semiconductor lasers and LEDs; bulk and quantum-well laser structures; radiative and nonradiative recombination processes; optical, electrical, and thermal properties of lasers; dynamic rate equations and modulation characteristics; lasing spectra, chirp, modal noise and linewidth; and edge-emitting and surface-emitting lasers. Electrical and Computer Engineering 396K (Topic 16) and Electrical Engineering 396K (Topic 16) may not both be counted. Additional prerequisite: Knowledge in electromagnetic engineering, quantum

theory of electronic materials, and solid-state electronic devices; and consent of instructor.

**Topic 17: Localized-Electron Phenomena.** Same as Mechanical Engineering 386R (Topic 2). Analysis of the variation in physical properties versus chemical composition of several groups of isostructural transition-metal compounds. Only one of the following may be counted: Electrical and Computer Engineering 396K (Topic 17), Electrical Engineering 396K (Topic 17), Mechanical Engineering 386R (Topic 2). Additional prerequisite: A semester of solid-state science and/or quantum mechanics.

**Topic 19: Plasma Processing of Semiconductors I.** Explore plasma analysis using Boltzmann and fluid equations; plasma properties, including Debye length, quasineutrality, and sheaths; basic collisional properties, including Coulomb and polarization scattering; analysis of capacitive and wave-heated plasma processing reactors. Electrical and Computer Engineering 396K (Topic 19) and Electrical Engineering 396K (Topic 19) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 20: Plasma Processing of Semiconductors II.** Explore plasma chemistry and equilibrium; analysis of molecular collisions; chemical kinetics and surface processes; plasma discharge particle and energy balance; analysis of inductive and DC plasma processing reactors; plasma etching, deposition, and implantation. Electrical and Computer Engineering 396K (Topic 20) and Electrical Engineering 396K (Topic 20) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 21: Nanoscale Device Physics and Technologies.** Examine physical principles and operational characteristics of semiconductor devices. Explore the physics of metal-oxide-semiconductor field-effect transistors (MOSFET) and bipolar junction transistors (BJT). Discuss short-channel effects, ultra-thin oxide, and high-K gate dielectrics; semiconductor interface characterization; hot-electron effects; lightly-doped drain devices (LDD); subthreshold characteristics; complementary-symmetry metal-oxide-semiconductor (CMOS) latchup; gate-induced leakage current of MOSFETs; poly-depletion and quantum mechanical effects; silicon on insulator (SOI) devices; strained-Si; advanced 3-D devices and bandgap narrowing effect; Webster effect; Kirk effect; punchthrough and avalanche breakdown; base transit time for bipolar transistors; and scaling issues of both BJT and MOSFETs. Electrical and Computer Engineering 396K (Topic 21) and Electrical Engineering 396K (Topic 21) may not both be counted. Additional prerequisite: Knowledge in solid-state electronic devices.

**Topic 22: Semiconductor Microlithography.** Electrical and Computer Engineering 396K (Topic 22) and Electrical Engineering 396K (Topic 22) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 23: Semiconductor Heterostructures.** Electrical and Computer Engineering 396K (Topic 23) and Electrical Engineering 396K (Topic 23) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 24: Microwave Devices.** Electrical and Computer Engineering 396K (Topic 24) and Electrical Engineering 396K (Topic 24) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 25: Organic and Polymer Semiconductor Devices.** Electrical and Computer Engineering 396K (Topic 25) and Electrical Engineering 396K (Topic 25) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 26: Microelectromechanical Systems.** Electrical and Computer Engineering 396K (Topic 26) and Electrical Engineering 396K (Topic 26) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 27: Charge Transport in Organic Semiconductors.** Electrical and Computer Engineering 396K (Topic 27) and Electrical Engineering

396K (Topic 27) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 28: Magnetic Materials and Devices.** Explore the fundamentals and applications of magnetic materials, in particular to nano-devices. Examine the origin of magnetism in oxides and metals, magnetic switching mechanisms, and how spin structures arise such as domain walls and topologically-protected spin states. Discuss applications to future computing nano-devices. Only one of the following may be counted: Electrical and Computer Engineering 396K (Topic 28), Electrical Engineering 396K (Topic 28), 396V (Topic: Magnetic Material/Devices). Additional prerequisite: Undergraduate-level course or background in electricity and magnetism strongly recommended; undergraduate-level course or background in quantum mechanics also recommended.

**Topic 29: Thin Film Transistors.** Explore device physics of thin-film and 2D transistors, charge transport phenomena, and materials aspects. Discuss organic polymer and amorphous inorganic semiconductors (oxides and silicon). Study organic polymer and amorphous inorganic semiconductors (oxides and silicon), and field effect transistors with 2D semiconductors such as transition metal dicalcogenides (TMDs). Review change of properties with layer thickness, device physics and transport, contacts, and performance characteristics and discuss unusual properties of thin film transistors (TFTs) such as light emission and ambipolar charge transport, lateral junctions, and ionic gating. Electrical and Computer Engineering 396K (Topic 29) and Electrical Engineering 396V (Topic: Thin Film Transistors) may not both be counted. Additional prerequisite: Undergraduate course in semiconductor devices or the equivalent, or consent of instructor.

**Topic 30: Solar Energy Conversion Devices.** Study radiation from the Sun and the solar energy flux on Earth, and discuss the principles of semiconductors and semiconductor device physics relevant to diodes under various bias conditions. Examine the physics of pn junction under solar illumination and with various recombination mechanisms. Review the most important materials families of solar cells including single crystal silicon; polysilicon; amorphous silicon; solar cells based on CdTe and copper indium diselenide and related compounds; and III-V compound semiconductor heterojunction solar cells including tandem cells and space-grade solar cells. Discuss new materials technologies including organic and perovskite-based solar cells. Electrical and Computer Engineering 396K (Topic 30) and Electrical Engineering 396V (Topic: Solar Energy Conversion Devices) may not both be counted.

### ECE 396M. Topics in Quantum Electronics.

Examine quantum mechanical principles as applied to electron devices, lasers, and electro-optics; material properties and interaction of radiation and material. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in electrical engineering or physics.

**Topic 1: Introductory Quantum Electronics.** Examine basic quantum mechanics and applications to solid-state phenomena and lasers. Electrical and Computer Engineering 396M (Topic 1) and Electrical Engineering 396M (Topic 1) may not both be counted.

**Topic 2: Quantum Information Hardware.** Explore various hardware platforms used for quantum information processing from an applied physics perspective. Examine the physical requirements for a hardware platform to process quantum information. Review characteristics of current hardware platforms such as superconducting quantum circuits, atomic systems, solid-state spins and optical photons. Electrical and Computer Engineering 396M (Topic 2) and Electrical Engineering 396V (Topic: Quantum Information Hardware) may not both be counted.

### ECE 396N. Topics in Nanotechnology.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Semiconductor Nanostructures.** Examine the theoretical framework for the understanding of electronic properties and electron transport in quantum confined devices; two-dimensional electron systems in semiconductor heterostructures; quantum wires; quantum dots; spintronic devices; and growth and fabrication techniques. Electrical and Computer Engineering 396N (Topic 1) and Electrical Engineering 396N (Topic 1) may not both be counted. Additional prerequisite: Knowledge in quantum theory of electronic materials and solid-state electronic devices.

### ECE 396V. Topics in Solid-State Electronics.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 5: Introduction to Solid-State Properties of Materials.** Same as Materials Science and Engineering 386P (Topic 4) and Mechanical Engineering 386P (Topic 4). Introduction to the electronic, magnetic, and optical properties of materials. Solid-state properties of metals, semiconductors, and ceramics; fundamental concepts needed for the description of these properties, using an introductory-level description of the electronic structure of solids. Only one of the following may be counted: Electrical Engineering 396V (Topic 5), Electrical and Computer Engineering 396V (Topic 5), Mechanical Engineering 386P (Topic 4), Materials Science and Engineering 386P (Topic 4). Additional prerequisite: Graduate standing and consent of instructor.

**Topic 6: Advanced Semiconductor Lasers.** Examine dynamic properties of semiconductor lasers; intensity, phase, and frequency noise; dynamic lasing spectra, chirp, and mode partition noise; injection locking and optical feedback; short pulse generation by mode-locking and gain switching; single-mode distributed feedback, distributed Bragg reflector (DBR), and coupled-cavity lasers; wavelength-tunable single-mode lasers; externally modulated lasers; coherent high-power laser arrays; quantum-dot lasers and amplifiers; vertical-cavity surface-emitting lasers; and integrated wavelength-division multiplexing (WDM) laser arrays and photonic integrated circuits. Electrical and Computer Engineering 396V (Topic 6) and Electrical Engineering 396V (Topic 6) may not both be counted. Additional prerequisite: Electrical and Computer Engineering 396K (Topic 16) or the equivalent.

**Topic 7: Optoelectronics for Optical Networking.** Examine advanced optical communication systems and optoelectronics technologies, including dense and coarse wavelength division multiplexing, soliton transmission, coherent detection, subcarrier multiplexing, nonregenerative erbium-doped fiber amplifier (EDFA) networks, and Raman amplification. Explore photonic switching system architectures and optical switching technologies, including both passive and active components. Electrical and Computer Engineering 396V (Topic 7) and Electrical Engineering 396V (Topic 7) may not both be counted. Additional prerequisite: Electrical and Computer Engineering 383P (Topic 6) and 396K (Topic 16), or their equivalents, are recommended.

### ECE 197C, 297C, 397C, 697C, 997C. Research Problems.

Select and research a problem with approval of the department. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Electrical and Computer Engineering 197C and Electrical Engineering 197C may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in electrical engineering and consent of the graduate advisor.

## **ECE 197G, 297G, 397G, 697G, 997G. Research Problems.**

Problem selected by the student with approval of the department. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Electrical and Computer Engineering 197G and Electrical Engineering 197G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing in electrical engineering and consent of instructor and the graduate advisor.

## **ECE 397K. Advanced Topics in Electrical Engineering.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in electrical engineering and consent of instructor.

## **ECE 197M, 297M, 397M. Graduate Research Internship.**

Engage in research associated with enrollment in the Graduate Research Internship Program (GRIP). For every hour of credit earned, the equivalent of one lecture hour a week for one semester. Electrical and Computer Engineering 197M and Electrical Engineering 197M may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in electrical engineering and consent of instructor.

## **ECE 397N. Conference Course.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in electrical and computer engineering and consent of instructor.

## **ECE 197S, 297S, 397S. Graduate Seminar in Electrical Engineering.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

## **ECE 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Electrical and Computer Engineering 698 and Electrical Engineering 698 may not both be counted. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in electrical and computer engineering and consent of the graduate advisor; for 698B, Electrical and Computer Engineering 698A (or Electrical Engineering 698A).

## **ECE 398R. Master's Report.**

Prepare a report to fulfill the requirement for the Master's degree under the report option. The equivalent of three lecture hours a week for one semester. Electrical and Computer Engineering 398R and Electrical Engineering 398R may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in electrical and computer engineering and consent of the graduate advisor.

## **ECE 398T. Supervised Teaching in Electrical Engineering.**

Teach under close supervision for one semester. Attend group meetings or individual consultations, and submit reports as required. The equivalent of three lecture hours a week for one semester. Electrical and Computer Engineering 398T and Electrical Engineering 398T may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and appointment as a teaching assistant.

## **ECE 399W, 499W, 599W, 699W, 799W, 899W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Electrical Engineering Courses**

## **Electrical Engineering: E E**

### **Lower-Division Courses**

#### **E E 302 (TCN: ENGR 2305). Introduction to Electrical Engineering.**

The scope and nature of professional activities of electrical engineers, including problem-solving techniques; analysis and design methods; engineering professional ethics; analysis of analog resistive circuits, including Thevenin/Norton equivalents, mesh analysis, and nodal analysis; and operational amplifiers (DC response). Substantial teamwork is required for laboratory work in this course. Three lecture hours and two laboratory hours a week for one semester. Electrical Engineering 302 and 302H may not both be counted. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 408C or 408K.

#### **E E 302H. Introduction to Electrical Engineering: Honors.**

Restricted to students in the Engineering Honors Program. Examine the scope and nature of professional activities of electrical engineers, including problem-solving techniques; analysis and design methods; engineering professional ethics; analysis of linear and non-linear analog circuits, including Thevenin/Norton equivalents, two-port networks, frequency domain analysis, mesh analysis, and nodal analysis; and operational amplifiers (DC response). Three lecture hours and two laboratory hours a week for one semester. Electrical Engineering 302 and 302H may not both be counted. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 408D.

#### **E E 306. Introduction to Computing.**

Motivated, bottom-up introduction to computing; bits and operations on bits; number formats; arithmetic and logic operations; digital logic; the Von Neumann model of processing, including memory, arithmetic logic unit, registers, and instruction decoding and execution; introduction to structured programming and debugging; machine and assembly language programming; the structure of an assembler; physical input/output through device registers; subroutine call/return; trap instruction; stacks and applications of stacks. Three lecture hours and one recitation hour a week for one semester. Only one of the following may be counted: Biomedical Engineering 306, Electrical Engineering 306, 306H. Prerequisite: Credit with a grade of at least a C- or registration for Mathematics 408C or 408K.

#### **E E 306H. Introduction to Computing: Honors.**

Introduction to computing including bits and operations on bits, number formats, arithmetic and logic operations, and digital logic. Explore the Von Neumann model of processing including memory, arithmetic logic unit, registers, and instruction decoding and execution. Examine structured programming and debugging, machine and assembly language programming, the structure of an assembler, physical input/output through device registers, subroutine call/return; trap instruction, stacks and applications of stacks. Three lecture hours and one recitation hour a week for one semester. Only one of the following may be counted: Biomedical Engineering 306, Electrical Engineering 306, 306H. Prerequisite: Credit with a grade of at least a C- or registration for Mathematics 408C or 408K.

#### **E E 307E. Elements of Electrical and Computer Engineering.**

Introduction to electrical engineering: direct current circuit analysis, resistors, LEDs, switches, current and voltage measurements. Introduction to computer engineering: number systems, digital logic, storage, finite state machines, programming basics, microcontrollers. Three lecture hours and one lab hour a week for one semester. Electrical

Engineering 307S (Topic: ELEMENTS OF ELEC/COMP ENGR) and 307E may not both be counted. Prerequisite: Consent of the instructor

### **E E 107S, 207S, 307S, 407S, 507S, 607S, 707S, 807S, 907S. Topics in Electrical Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Electrical and Computer Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **E E 108S. Topics in Technical Skills.**

Build a specific technical skill. The equivalent of one lecture and one lab hour a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Consent of instructor.

### **E E 109K, 209K, 309K, 409K. Topics in Electrical Engineering.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

### **E E 309S. Development of a Solar-Powered Vehicle.**

Analysis, design, and construction of a solar-powered car for national competitions involving other universities. Study of electrical, mechanical, and aerodynamic systems. Three lecture hours and three laboratory hours a week for one semester. Electrical Engineering 309K (Topic: Development of a Solar Car for NASC) and 309S may not both be counted.

### **E E 411. Circuit Theory.**

Capacitance and inductance; first- and second-order transient circuit response, including operational amplifier circuits; sinusoidal steady state analysis; Bode plots; complex power in single and balanced three-phase systems; transformers; two-port networks (Z-parameters and Y-parameters); and computer-aided analysis and design. Three lecture hours and two recitation hours a week for one semester. Biomedical Engineering 311 and Electrical Engineering 411 may not both be counted. Prerequisite: Electrical Engineering 302 or 302H with a grade of at least C-; credit with a grade of at least C- or registration for Mathematics 427J or 427K, and Physics 303L and 103N.

### **E E 111S. Tools to Enhance Academic Success.**

Explore the components necessary to enhance academic success in engineering coursework including academic self-regulation, time management, self-discipline, goal-setting, weekly and semester planning, growth mindset, self-motivation, management of anxiety and stress, learning and memory, learning strategies, retrieval practices, and exam preparation. One lecture hour a week for one semester. Electrical Engineering 109K (Topic: Enhancing Academic Success) and 111S may not both be counted.

### **E E 312. Software Design and Implementation I.**

Basic problem solving, design and implementation techniques for imperative programming; structured programming in the C/C++ language; programming idioms; introduction to software design principles, including modularity, coupling and cohesion; introduction to software engineering tools; elementary data structures; asymptotic analysis. Three lecture hours and one recitation hour a week for one semester. Electrical Engineering 312 and 312H may not both be counted. Prerequisite: The following coursework with a grade of at least C-:

Biomedical Engineering 306 or Electrical Engineering 306 or 306H, and 319K or 319H.

### **E E 312H. Software Design and Implementation I.**

Basic problem solving, design, and implementation techniques for imperative programming; structured programming in the C/C++ language; programming idioms; introduction to software design principles, including modularity, coupling and cohesion; introduction to software engineering tools; elementary data structures; asymptotic analysis. Three lecture hours and one recitation hour a week for one semester. Electrical Engineering 312 and 312H may not both be counted. Prerequisite: The following coursework with a grade of at least B in each: Biomedical Engineering 306 or Electrical Engineering 306 or 306H; Electrical Engineering 319K or 319H, or registration for Electrical Engineering 319H.

### **E E 313. Linear Systems and Signals.**

Representation of signals and systems; system properties; sampling; Laplace and z-transforms; transfer functions and frequency response; convolution; stability; Fourier transform; feedback; and control applications. Computer analysis using MATLAB or Python. Three lecture hours a week for one semester. Biomedical Engineering 343 and Electrical Engineering 313 may not both be counted. Prerequisite: Biomedical Engineering 311, Electrical Engineering 411, or 331 with a grade of at least C-; Mathematics 427J or 427K with a grade of at least C-; and credit with a grade of at least C- or registration for Mathematics 340L.

### **E E 316. Digital Logic Design.**

Boolean algebra; analysis and design of combinational and sequential logic circuits; state machine design and state tables and graphs; simulation of combinational and sequential circuits; applications to computer design; and introduction to hardware description languages (HDLs) and field-programmable gate arrays (FPGAs). Three lecture hours and one recitation hour a week for one semester. Prerequisite: Biomedical Engineering 306, Computer Science 429, Electrical Engineering 306, or 306H with a grade of at least C-.

### **E E 319H. Introduction to Embedded Systems: Honors.**

Examine embedded systems; machine language execution; assembly and C language programming; local variables and subroutines; input/output synchronization; analog to digital conversion and digital to analog conversion; debugging; and interrupts. Three lecture hours and one laboratory hour a week for one semester. Electrical Engineering 319K and 319H may not both be counted. Prerequisite: Biomedical Engineering 306, Electrical Engineering 306 or 306H with a grade of at least B.

### **E E 319K. Introduction to Embedded Systems.**

Embedded systems; machine language execution; assembly and C language programming; local variables and subroutines; input/output synchronization; analog to digital conversion and digital to analog conversion; debugging; and interrupts. Three lecture hours and one laboratory hour a week for one semester. Electrical Engineering 319K and 319H may not both be counted. Prerequisite: Biomedical Engineering 306, Electrical Engineering 306 or 306H with a grade of at least C-.

## **Upper-Division Courses**

### **E E 321K. Mixed Signal and Circuits Laboratory.**

Digital and analog parametric testing of mixed-signal circuits and systems, including frequency response, harmonic and intermodulation, and noise behavior; use of system-level test equipment, including network analyzers, spectrum analyzers, and probe stations; coherent v. noncoherent measurements; design for testability. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 438 with a grade of at least C-; and credit

with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **E E 422C. Software Design and Implementation II.**

Methods for engineering software with a focus on abstraction; specification, design, implementation, and testing of object-oriented code using a modern development tool-set for complex systems; design and implementation of object-oriented programs in Java; abstract data types; inheritance; polymorphism; parameterized types and generic programming; the operation and application of commonly used data structures; exception handling and fault tolerance; introduction to algorithm analysis; teamwork models. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Computer Science 312 or Electrical Engineering 312 or 312H with a grade of at least C-.

### **E E 325. Electromagnetic Engineering.**

Electrostatics and magnetostatics; properties of conductive, dielectric, and magnetic materials; solutions of Maxwell's equations; uniform plane wave applications; frequency- and time-domain analyses of transmission lines. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 411, Mathematics 427J or 427K, Physics 303L, and 103N with a grade of at least C- in each; and credit with a grade of at least C- or registration for Mathematics 427L.

### **E E 325K. Antennas and Wireless Propagation.**

Solutions of time-varying Maxwell's equations with applications to antennas and wireless propagation; antenna theory and design, array synthesis; electromagnetic wave propagation, scattering, and diffraction; numerical methods for solving Maxwell's equations. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 325 with a grade of at least C-.

### **E E 325L. Cooperative Engineering.**

This course covers the work period of electrical and computer engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Electrical Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Electrical Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Electrical Engineering 325LY and appointment for a full-time cooperative work tour.

### **E E 225M. Cooperative Engineering.**

This course covers the work period of electrical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Electrical Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Electrical Engineering 225MA and appointment for a full-time cooperative work tour.

### **E E 125N. Cooperative Engineering.**

This course covers the work period of electrical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Electrical Engineering 325LZ or 225MB, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

### **E E 125S. Internship in Electrical and Computer Engineering.**

Practical work experience in industry or a research lab under the supervision of an engineer or scientist. Requires a substantial final report. At least ten hours of work a week, for a total of 150 hours a semester or summer session. May be repeated for credit, but only three hours may be counted toward an electrical engineering degree. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Consent of the undergraduate adviser.

### **E E 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Electrical Engineering.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Electrical and Computer Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **E E 331. Electrical Circuits, Electronics, and Machinery.**

Not open to electrical engineering majors. Brief theory of direct and alternating current circuits; single-phase and three-phase power transmission; electronic devices and instrumentation; electromechanics. Three lecture hours a week for one semester. Prerequisite: Mathematics 408D or 408M with a grade of at least C-, and Physics 303L and 103N with a grade of at least C- in each.

### **E E 333T. Engineering Communication.**

Restricted to electrical engineering majors. Advanced engineering communication skills, with emphasis on technical documents, oral reports, and graphics; collaborative work involving online communication and research. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 333T, Biomedical Engineering 333T, Communication 333T, Civil Engineering 333T, Chemical Engineering 333T, Electrical Engineering 333T, Engineering Studies 333T, Mechanical Engineering 333T, Petroleum and Geosystems Engineering 333T. Prerequisite: Electrical Engineering 312, 312H or 313 with a grade of at least C-, and one of the following with a grade of at least C-.

### **E E 334K. Quantum Theory of Electronic Materials.**

Introduction to quantum mechanics; atoms and molecules; electron statistics; quantum theory of solids; electronic phenomena in semiconductors; and device applications based on these phenomena. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J or 427K, Physics 303L, and 103N with a grade of at least C- in each.

### **E E 438. Fundamentals of Electronic Circuits I Laboratory.**

Analysis and design of electronic circuits using semiconductor devices. Basic device physics and small-signal modeling for diodes, bipolar junction transistors, and metal-oxide-semiconductor transistors; operation region and biasing; basic switching circuits; single-stage and multi-stage amplifier design and analysis; input and output impedance characteristics of amplifiers; frequency response; AC and DC coupling techniques; differential amplifiers and output stages. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 311 or Electrical Engineering 411 with a grade of at least C-; credit with a grade of at least C- or registration for Biomedical Engineering 343 or Electrical Engineering 313; and credit with a grade of at least C- or registration for one of the following: Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **E E 438K. Analog Electronics.**

Analysis and design of analog electronic circuits; transistor models; single-ended amplifiers; differential amplifiers; operational amplifiers; frequency response; feedback theory; stability analysis; circuit nonidealities; op-amp-based circuits; output stages; power amplifiers; passive and active analog filters; and relaxation oscillators. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 438 with a grade of at least C-.

### **E E 338L. Analog Integrated Circuit Design.**

Analysis and design of analog integrated circuits; transistor models; simple and advanced current mirrors; single-ended amplifiers; differential amplifiers; operational amplifiers; frequency response; feedback theory; stability analysis; circuit nonidealities and noise; output stages; analog filters. CAD tools for circuit analysis and design. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 438 with a grade of at least C-.

### **E E 339. Solid-State Electronic Devices.**

Semiconductor materials; atomic orbitals to energy band structure of semiconductors; charge carrier transport, electron-hole generation and recombination; p-n junctions and Schottky barriers; bipolar and field-effect transistors; and introduction to optoelectronic devices. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J or 427K, Physics 303L, and 103N with a grade of at least C- in each.

### **E E 339S. Solar Energy Conversion Devices.**

An investigation of basic principles of photovoltaic devices which convert light into charge carriers (electrons and holes). Topics include electrons and holes in semiconductors, generation and recombination, junctions, analysis of the p-n junction, silicon and III-V semiconductor solar cell design and optimization, thin film solar cell technologies, managing light, strategies for higher efficiency, and a brief overview of non-photovoltaic approaches to solar energy conversion. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J or 427K, Physics 303L and 103N with a grade of at least C- in each.

### **E E 440. Integrated Circuit Nanomanufacturing Techniques.**

Integrated circuit processing; crystal growth and wafer preparation; epitaxial growth; oxidation, diffusion, and ion implantation; thin-film deposition techniques; and lithography and etching. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 339 with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **E E 340P. High-Throughput Nanopatterning.**

Sub-50nm fabrication using mechanical patterning techniques; overview of photolithography, mechanical nanopatterning processes, hot embossing, and UV imprint lithography; wafer-scale and roll-to-roll nanopatterning with applications in electronics, photonics, and nanomedicine; physics of nanoreplication, process limits, template (mold) fabrication, defect mechanisms, and factors affecting throughput. Three lecture hours a week for one semester. Only one of the following may be counted: Electrical Engineering 340P, 379K (Topic: High-Throughput Nanopatterning), and Mechanical Engineering 379M (Topic: High-Throughput Nanopatterning). Prerequisite: Electrical Engineering 411 and 339, and Mathematics 427K or 429J, with a grade of at least C- in each.

### **E E 341. Electric Drives and Machines.**

Fundamentals of electric machines. Electromechanical energy conversion; magnetic circuits, transformers, and energy conversion

devices; and an introduction to power electronics. Motor drive fundamentals and applications. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 313 with a grade of at least C-.

### **E E 445L. Embedded Systems Design Laboratory.**

Design of microcontroller-based embedded systems; interfacing from both a hardware and software perspective; and applications, including audio, data acquisition, and communication systems. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 312 or 312H and 319K or 319H with a grade of at least C- in each; Electrical Engineering 411 and 313, or Biomedical Engineering 311 and 343, with a grade of at least C- in each; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **E E 445M. Embedded and Real-Time Systems Laboratory.**

Real-time operating systems; implementation of context switching, threads, multitasking, real-time scheduling, synchronization, communication, storage, file systems, memory management, process linking and loading, hardware interfacing, and networking; debugging and testing; operating system performance, including latency, jitter, deadlines, deadlocks, and starvation; real-time systems, including data acquisition, sensing, actuating, digital control, signal processing, and robotics. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 445L (or 345L) or 445S (or 345S) with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **E E 445S. Real-Time Digital Signal Processing Laboratory.**

Architectures of programmable digital signal processors; programming for real-time performance; design and implementation of digital filters, modulators, data scramblers, pulse shapers, and modems in real time; and interfaces to telecommunication systems. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 312 or 312H and 319K or 319H with a grade of at least C- in each; Biomedical Engineering 343 or Electrical Engineering 313 with a grade of at least C-; credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T; and credit with a grade of at least C- or registration for Biomedical Engineering 335 or Electrical Engineering 351K.

### **E E 347. Modern Optics.**

Modern optical wave phenomena with applications to imaging, holography, fiber optics, lasers, and optical information processing. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 313 and 325 with a grade of at least C- in each, or Biomedical Engineering 343 with a grade of at least C-.

### **E E 348. Laser and Optical Engineering.**

Principles of operation and applications of lasers, optical modulators, and optical detectors. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 339 with a grade of at least C-.

### **E E 351K. Probability and Random Processes.**

Probability, random variables, statistics, and random processes, including counting, independence, conditioning, expectation, density functions, distributions, law of large numbers, central limit theorem,

confidence intervals, hypothesis testing, statistical estimation, stationary processes, Markov chains, and ergodicity. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J or 427K with a grade of at least C-.

### **E E 351M. Digital Signal Processing.**

Sampling, aliasing, truncation effects; discrete and fast Fourier transform methods; convolution and deconvolution; finite and infinite impulse response filter design methods; Wiener, Kalman, noncausal, linear phase, median, and prediction filters; and spectral estimation. Three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 343 or Electrical Engineering 313 with a grade of at least a C-, and credit with a grade of at least C- or registration for Biomedical Engineering 335 or Electrical Engineering 351K.

### **E E 155. Electrical and Computer Engineering Seminar.**

Presentations by speakers from industry, government, academia, and professional private practice. Topics include environmental and other ethical concerns, safety awareness, quality management, technical career descriptions, and professionalism. Substantial practice in engineering communication. One lecture hour a week for one semester. Electrical Engineering 155 and 364D may not both be counted. Prerequisite: One of the following with a grade of at least C-: English 316L (or 316K), 316M (or 316K), 316N (or 316K), or 316P (or 316K).

### **E E 155L. Engineering Leadership Seminar.**

Presentations by speakers from industry, government, academia, and professional private practice. Topics include environmental and other ethical concerns, safety awareness, quality management, technical career descriptions, and professionalism. One lecture hour a week for one semester. Prerequisite: Consent of the dean and one of the following with a grade of at least C-: English 316L (or 316K), 316M (or 316K), 316N (or 316K), or 316P (or 316K).

### **E E 155R. Undergraduate Research Seminar.**

Restricted to students in electrical and computer engineering. Seminar on topics of research in electrical and computer engineering. One lecture hour a week for a semester. Offered on the pass/fail basis only.

### **E E 160, 260, 360, 460. Special Problems in Electrical and Computer Engineering.**

Restricted to engineering majors. Original investigation of special problems as approved by the electrical engineering department. For each semester hour of credit earned, the equivalent of three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Electrical Engineering 312 or 313 with a grade of at least C- and consent of instructor.

### **E E 360C. Algorithms.**

Advanced problem solving methods; algorithm design principles; complexity analysis; study of the nature, impact, and handling of intractability; study of common algorithmic classes and their applications. Three lecture hours a week for one semester. Prerequisite: Computer Science 312 or Electrical Engineering 312 or 312H with a grade of at least C-; and Mathematics 325K with a grade of at least C-.

### **E E 360F. Introduction to Software Engineering.**

Introduction to the discipline of software engineering. Includes software system creation and evolution; fundamental concepts and principles of software product and software process systems, including requirements, architecture and design, construction, deployment, and maintenance; and documentation and document management, measurement and evaluation, software evolution, teamwork, and project management. Three lecture hours a week for one semester. Prerequisite: One of the

following with a grade of at least C-: Computer Science 314 or 314H, or Electrical Engineering 422C.

### **E E 460J. Data Science Laboratory.**

Predictive modeling, regression and classification, data cleaning and preprocessing, feature engineering, unsupervised methods, principal component analysis, data clustering, model selection and feature selection, entropy and information theory, neural networks, deep learning, machine learning for signals and time-series data. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Electrical Engineering 460J, 379K (Topic: Data Science Laboratory) or 379K (Topic 24). Prerequisite: The following with a grade of at least C- in each: Computer Science 314 or 314H, or Electrical Engineering 360C; Biomedical Engineering 343 or Electrical Engineering 313; and Biomedical Engineering 335 or Electrical Engineering 351K or Mathematics 362K; Mathematics 340L. Credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **E E 360K. Introduction to Digital Communications.**

Communication channels and their impairments; modulation; demodulation; probability-of-error analysis; source coding; error control coding; link budget analysis; equalization; synchronization and multiple access; spread spectrum; applications in wireline and wireless communication systems. Three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 335 or Electrical Engineering 351K with a grade of at least C-, and Biomedical Engineering 343 or Electrical Engineering 313 with a grade of at least C-.

### **E E 460M. Digital Systems Design Using HDL.**

Organization, design, simulation, synthesis, and testing of digital systems; hardware description languages (HDLs); field programmable gate arrays (FPGAs); hardware implementation of arithmetic and other algorithmic processes; state machine charts; microprogramming; and microprocessor design. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 312 or 312H, 316, and 319K or 319H with a grade of at least C- in each.

### **E E 460N. Computer Architecture.**

Characteristics of instruction set architecture and microarchitecture; physical and virtual memory; caches and cache design; interrupts and exceptions; integer and floating-point arithmetic; I/O processing; buses; pipelining, out-of-order execution, branch prediction, and other performance enhancements; design trade-offs; case studies of commercial microprocessors. Laboratory work includes completing the behavioral-level design of a microarchitecture. Three lecture hours and one and one-half laboratory/recitation hours a week for one semester. Prerequisite: Computer Science 312 or 312H, and 429 or 429H with a grade of at least C- in each; or Electrical Engineering 306 or 306H, 312 or 312H, and 319K or 319H with a grade of at least C- in each.

### **E E 360P. Concurrent and Distributed Systems.**

An investigation of concurrency, lock-based and lock-free synchronization, resource allocation, multi-threaded programming, distributed systems programming, mutual exclusion, global snapshots, global property evaluation, message ordering, consensus, Byzantine agreement, commit protocols. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 422C (or 322) and 360C with a grade of at least C-.

### **E E 460R. Introduction to VLSI Design.**

Theory and practice of very-large-scale integration (VLSI) circuit design. Metal-oxide-semiconductor (MOS) transistors; static and dynamic

complementary metal-oxide-semiconductor (CMOS) combinational and sequential circuits; design of adders, multipliers, and shifters; performance, power consumption and testing. CAD tools for layout, timing analysis, synthesis, physical design, and verification. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 316 and 438 with a grade of at least C- in each.

### **E E 360S. Digital Integrated Circuit Design.**

Circuit-level aspects of metal oxide silicon (MOS) and bipolar integrated circuit technologies. Logic gates and latches; propagation delays; circuit simulation models. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 438 and 339 with a grade of at least C- in each.

### **E E 360T. Software Testing.**

Basic concepts and techniques used in testing software and finding bugs. Includes process, unit, integration, and system testing; manual and automatic techniques for generation of test inputs and validation of test outputs; and coverage criteria. Focus on functional testing. Three lecture hours a week for one semester. Electrical Engineering 360T and 379K (Topic: Software Testing) may not both be counted. Prerequisite: One of the following with a grade of at least C-: Computer Science 314 or 314H, or Electrical Engineering 422C.

### **E E 361C. Multicore Computing.**

Theoretical and practical aspects of designing multicore software systems; programming constructs for concurrent computation; openMP; sequential consistency; linearizability; lock-based synchronization; lock-free synchronization; wait-free synchronization; consensus number; software transactional memory; testing and debugging parallel programs; race detection; concurrent data structures such as stacks, queues, linked lists, hash tables, and skiplists; formal models; temporal logic; reachability analysis; and parallel graph algorithms. Three lecture hours a week for one semester. Electrical Engineering 361C and 379K (Topic: Multicore Computing) may not both be counted. Prerequisite: Electrical Engineering 422C and 360C with a grade of at least C-.

### **E E 361D. System Design Metrics.**

Survey of engineering design, manufacturing, and lifetime support issues; implications of customer perceptions of quality on design; economics of design; legal implications of design decisions. The equivalent of three lecture hours a week for one semester. Prerequisite: Electrical Engineering 364D with a grade of at least C-.

### **E E 461L. Software Engineering and Design Laboratory.**

The design and development of large-scale software systems using automated analysis tools. Generation of concrete software engineering artifacts at all stages of the software life-cycle. Design principles and methods; design and modeling tools; collaborative development environment; object-oriented design and analysis; design patterns and refactoring; integration and testing tools; debugger and bug finder; program comprehension; software life-cycle and evolution. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Computer Science 314, 314H, or Electrical Engineering 422C with a grade of at least C-; Mathematics 325K with a grade of at least C-; and credit or registration with a grade of at least C- for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **E E 361N. Information Security and Privacy.**

Explore information valuation; information classification; information confidentiality, integrity and availability; access control models; trusted identity, trust frameworks. Examine cryptology, designing information system security and privacy, threats and vulnerabilities. Introduction

to network, software, and web security; risk assessments; data breach incident response; privacy laws and regulations. The equivalent of three lecture hours a week for one semester. Electrical Engineering 361N and 379K (Topic: Information Security & Privacy) may not both be counted. Prerequisite: Computer Science 312 or 312H, or Electrical Engineering 312 or 312H with a grade of at least C-.

### **E E 461P. Data Science Principles.**

Principles of unsupervised and supervised learning; exploratory data analysis; feature engineering; predictive modeling for regression and classification; clustering algorithms; neural networks and stochastic gradient descent methods; scalable models for Big Data sets; case studies; programming predictive models in Python and R. Four lecture hours a week for one semester. Only one of following may be counted: Electrical Engineering 379K (Topic: Introduction to Data Mining), 361M, and 461P. Prerequisite: The following with a grade of at least C- in each: Mathematics 340L, and Computer Science 314 or 314H, or Electrical Engineering 360C, and Biomedical Engineering 343 or Electrical Engineering 313, and Biomedical Engineering 335 or Electrical Engineering 351K or Mathematics 362K.

### **E E 361Q. Requirements Engineering.**

Methods and technology for acquiring, representing, documenting, verifying, validating, and maintaining requirements; text-based, graphic-based, and computational requirements model representations; requirements analysis to synthesize and resolve conflicts among disparate stakeholder viewpoints; requirements traceability and evolution, and change management. The equivalent of three lecture hours a week for one semester. Electrical Engineering 361Q and 379K (Topic: Requirements Engineering) may not both be counted. Prerequisite: Computer Science 312 or 312H, or Electrical Engineering 312 or 312H with a grade of at least C-.

### **E E 361R. Radio-Frequency Electronics.**

Modeling of active and passive devices and transmission line structures at high frequencies. Analysis and design of radio-frequency electronic circuits including amplifiers, mixers, multipliers, detectors, and oscillators; transistor-, circuit-, and system-level design methods, challenges, and topologies; noise and distortion analysis; and evaluation of modern radio systems. The equivalent of three lecture hours a week for one semester. Electrical Engineering 361R and 379K (Topic: Radio Frequency Circuit Design) may not both be counted. Prerequisite: Electrical Engineering 325 and 438 with a grade of at least C- in each.

### **E E 461S. Operating Systems.**

Introductory course on operating system design and implementation; the shell; process management and system calls; memory management; thread management, scheduling, synchronization and concurrency; file systems; input/output systems; virtual machines; networking and security. Three lecture hours and one lab hour a week for one semester. Electrical Engineering 461S and 379K (Topic: Operating Systems) may not both be counted. Prerequisite: The following with a grade of at least C-: Electrical Engineering 312 or 312H, 319K or 319H, and Mathematics 325K.

### **E E 362G. Smart Grids.**

Fundamentals of smart electric power grids; smart grid architecture, communications, measurement, sensing, design, performance, standards and cyber security; distributed energy, renewable sources, and energy storage; interoperability. Three lecture hours a week for one semester. Electrical Engineering 362G and 379K (Topic: Smart Grids) may not both be counted. Prerequisite: Electrical Engineering 368L or 369 with a grade of at least C-.

### **E E 362K. Introduction to Automatic Control.**

Restricted to engineering majors. Analysis of linear automatic control systems in time and frequency domains; stability analysis; state variable analysis of continuous-time and discrete-time systems; root locus; Nyquist diagrams; Bode plots; sensitivity; lead and lag compensation. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 313 and Mathematics 340L with a grade of at least C- in each.

### **E E 462L. Power Electronics Laboratory.**

Analysis, design, and operation of power electronic circuits; power conversion from AC to DC, DC to DC, and DC to AC; rectifiers, inverters, and pulse width modulated motor drives. Laboratory work focuses on the use of energy from renewable sources such as photovoltaics and wind. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 313 with a grade of at least C-; and credit with a grade of at least C- or registration for one of the following: Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **E E 362Q. Power Quality and Harmonics.**

Introduction to and analysis of power quality and harmonic phenomena in electric power systems. Includes characteristics and definitions, voltage sags, electrical transients, harmonics, mitigation techniques, and standards of power quality and harmonics. The equivalent of three lecture hours a week for one semester. Electrical Engineering 362Q and 379K (Topic: Power Quality and Harmonics) may not both be counted. Prerequisite: Electrical Engineering 313 with a grade of at least C-.

### **E E 362R. Renewable Energy and Power Systems.**

Introduction to renewable energy sources and their integration into power systems. Includes wind energy: resources, turbines, blades, rotor power characteristics, generators, active and reactive power, variability, and voltage regulation; solar energy: resources, solar radiation measurements, photovoltaic materials and properties, photovoltaic electrical characteristics, and system integration; and demonstrations with commercial-grade solar panels and laboratory-scale wind turbines. Three lecture hours a week for one semester. Electrical Engineering 362R and 379K (Topic: Renewable Energy and Power Systems) may not both be counted. Prerequisite: Electrical Engineering 313 with a grade of at least C-.

### **E E 362S. Development of a Solar-Powered Vehicle.**

Analysis, design, and construction of a solar-powered car for national competitions involving other universities. Study of electrical, mechanical, and aerodynamic systems. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Electrical Engineering 362S, 379K (Topic: Development of a Solar Car for NASC), Mechanical Engineering 362S, 379M (Topic: Development of a Solar-Powered Vehicle). Prerequisite: One of the following with a grade of at least C-: Electrical Engineering 312, 312H or 313.

### **E E 363M. Microwave and Radio Frequency Engineering.**

Design principles in microwave and radio frequency systems; transmission lines and waveguides; S-parameter representation; impedance matching; microwave network analysis; microwave devices and components; electromagnetic effects in high-speed/high-frequency applications. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 325 with a grade of at least C-.

### **E E 363N. Engineering Acoustics.**

Same as Electrical and Computer Engineering 363N and Mechanical Engineering 379N. Principles of acoustics, with applications drawn from audio engineering, biomedical ultrasound, industrial acoustics, noise control, room acoustics, and underwater sound. Three lecture hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 363N, Electrical Engineering 363N, Mechanical Engineering 379N. Prerequisite: Mathematics 427J or 427K with a grade of at least C-.

### **E E 464C. Corporate Senior Design Project.**

Design and experimental projects, done in the laboratories of local companies, for electrical engineering students working full-time in industry; the ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Electrical Engineering 364D with a grade of at least C-; and Electrical Engineering 440, 445L (or 345L), 445S (or 345S), 461L, or 462L (or 362L) with a grade of at least C-.

### **E E 364D. Introduction to Engineering Design.**

Introduction to the engineering design process; assessing engineering problems and customer needs; acquiring, documenting, and verifying requirements; high-level system design principles; effects of economic, environmental, ethical, safety, and social issues in design; writing design specifications. Two lecture hours and three laboratory hours a week for one semester. Electrical Engineering 155 and 364D may not both be counted. Prerequisite: Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T, with a grade of at least C-; and credit with a grade of at least C- or registration for Electrical Engineering 438, 440, 445L, 445S, 460J, 461L, 462L, or 471C.

### **E E 364E. Interdisciplinary Entrepreneurship.**

First course in a two-semester sequence that concludes with Electrical Engineering 464S. Teams of students starting companies focus on skill development and mentoring in start-up formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Includes discussion of the role of intellectual property, the social issues in design, as well as ethical and safety considerations. Emphasis on written and oral presentation of start-up activities. The equivalent of three lecture hours a week for one semester, with additional hours to be arranged. Electrical Engineering 364E and 464S may not be counted by students with credit for Electrical Engineering 364D, 464H, 464K, or 464R. Prerequisite: Credit with a grade of at least C- in Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T; credit with a grade of at least C- or registration for Electrical Engineering 438, 440, 445L, 445S, 460J, 461L, 462L, or 471C; and consent of instructor

### **E E 464G. Multidisciplinary Senior Design Project.**

Design and experimental projects done with teams of students from multiple engineering disciplines; the ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Electrical Engineering 364D with a grade of at least C-; and Electrical Engineering 440, 445L (or 345L), 445S (or 345S), 461L, or 462L (or 362L) with a grade of at least C-.

### **E E 464H. Honors Senior Design Project.**

Restricted to students in the Engineering Honors Program. Design and experimental projects done under the direction of a University faculty

member; the ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Electrical Engineering 364D with a grade of at least C-, and one of the following with a grade of at least C-: Electrical Engineering 438, 440, 445L, 445S, 460J, 461L, 462L, 471C.

#### **E E 464K. Senior Design Project.**

Design and experimental projects done in Department of Electrical and Computer Engineering laboratories; the ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Electrical Engineering 364D with a grade of at least C-, and one of the following with a grade of at least C-: Electrical Engineering 438, 440, 445L, 445S, 460J, 461L, 462L, 471C.

#### **E E 464R. Research Senior Design Project.**

Design and experimental projects done under the supervision of a University faculty member; the ethics of design for safety and reliability; emphasis on written and oral reporting of engineering projects. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Electrical Engineering 364D with a grade of at least C-, and one of the following with a grade of at least C-: Electrical Engineering 438, 440, 445L, 445S, 460J, 461L, 462L, 471C.

#### **E E 464S. Start-Up Senior Design Project.**

Continuation of Electrical Engineering 364E. Completion of a practical engineering product design; validation of the design through prototype construction and testing, modeling and simulation, and manufacturability analysis. Development of a completed company prospectus, seeking venture funding for the project. Three lecture hours and six laboratory hours a week for one semester. Electrical Engineering 364E and 464S may not be counted by students with credit for 364D, 464H, 464K, or 464R. Prerequisite: Electrical Engineering 364E with a grade of at least C-; one of the following courses with a grade of at least C-: Electrical Engineering 438, 440, 445L, 445S, 460J, 461L, 462L, 471C; and consent of instructor.

#### **E E 366. Engineering Economics I.**

Business organization; discounted cash flow calculations, including present-worth and rate-of-return calculations; replacement analyses; financial analyses; accounting and depreciation; income taxes; inflation; risk analysis, utility theory, decision models, sequential decision making; value of information. Three lecture hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biomedical Engineering 335 or Electrical Engineering 351K, and Biomedical Engineering 343 or Electrical Engineering 313.

#### **E E 366K. Engineering Economics II.**

Fundamentals of risk management, including portfolio theory, capital asset pricing theory, and optimal project mix; hedging financial risk; advanced economic analysis of alternative energy systems; and advanced mathematical modeling techniques for economic analysis. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 366 with a grade of at least C-.

#### **E E 366L. Statistics for Manufacturing.**

Statistical analysis applied to the development and control of manufacturing operations; quality control, statistical process control, and design of experiments. Three lecture hours a week for one semester. Prerequisite: The following with a grade of at least C-: Biomedical Engineering 335 or Electrical Engineering 351K, and Biomedical Engineering 343 or Electrical Engineering 313.

#### **E E 368L. Power Systems Apparatus and Laboratory.**

Fundamentals of power systems emphasized through laboratory experiments; complex power, three-phase circuits, per-unit system, transformers, synchronous machines, transmission line models, steady-state analysis, induction machines, capacitor banks, protective relaying, surge arrestors, and instrumentation. Three lecture hours and three laboratory hours a week for one semester. Electrical Engineering 368L and 379K (Topic: Power Systems Apparatus and Laboratory) may not both be counted. Prerequisite: Electrical Engineering 313 with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

#### **E E 369. Power Systems Engineering.**

Introduction to power systems engineering. Subjects include complex power, phasors, balanced three phase power systems, transformers and per-unit systems, transmission line parameters, steady state operation of transmission lines, the power flow problem, symmetrical faults, power system controls, economic operation of power systems, optimal power flow, and deregulation and restructuring of electricity markets. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 313 with a grade of at least C-.

#### **E E 369L. Relay Protection of Power Systems.**

Theory, principles, and practices for protecting medium-voltage industrial power systems and high-voltage transmission grids. Includes symmetrical components; fault calculations and grounding; protection of motors, generators, cables, and transmission lines; and relay settings, fusing, and coordination of multiple protection devices. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 313 with a grade of at least C-.

#### **E E 370. Automatic Control II.**

Introduction to modern control theory, nonlinear and optimal control systems; controllability, observability, stability; state feedback, observers, eigenvalue assignment. Three lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Electrical Engineering 362K.

#### **E E 370K. Computer Control Systems.**

Analysis and design of linear discrete time control systems; z-transform theory; modified z-transforms; stability; multirate systems; digital simulation of discrete time systems; synthesis of algorithms for computer controllers. Three lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Electrical Engineering 362K.

#### **E E 370L. Introduction to Manufacturing Systems Automation.**

Applications of automation techniques to manufacturing systems; robotics and computer vision. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 362K with a grade of at least C-.

#### **E E 370N. Introduction to Robotics and Mechatronics.**

Structures for industrial robots; geometry and transformation; direct and inverse kinematics; differential kinematics; dynamics; trajectory planning; actuators and sensors; adaptive control and learning compliance; vision and pattern recognition; expert systems. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 362K with a grade of at least C-.

### **E E 471C. Wireless Communications Laboratory.**

The fundamentals of wireless communication from a digital signal processing perspective; linear modulation, demodulation, and orthogonal frequency division multiplexing; synchronization, channel estimation, and equalization; communication in fading channels; and wireless standards. Three lecture hours and three laboratory hours a week for one semester. Electrical Engineering 371C and 379K (Topic: Wireless Communications Laboratory) may not both be counted. Prerequisite: Electrical Engineering 445S (or 345S), 351M, or 360K with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **E E 371D. Introduction to Neural Networks.**

Characteristics of artificial neural networks, feedforward networks, and recurrent networks; learning algorithms; self-organization; biological links; data mining and other applications. Three lecture hours a week for one semester. Prerequisite: The following with a grade of at least C- in each: Mathematics 340L, and Biomedical Engineering 343 or Electrical Engineering 313, and Biomedical Engineering 335 or Electrical Engineering 351K or Mathematics 362K.

### **E E 371M. Communication Systems.**

Analog and digital modulation; noise in communication systems; signal-to-noise ratio; coding; optimal receiver design; phase-locked loops; and performance analysis. Three lecture hours a week for one semester. Prerequisite: The following with a grade of at least C- in each: Mathematics 340L, and Biomedical Engineering 343 or Electrical Engineering 313, and Biomedical Engineering 335 or Electrical Engineering 351K or Mathematics 362K.

### **E E 371Q. Digital Image Processing.**

Examine digital image acquisition, processing, and analysis; two dimensional Fourier analysis; 2D wavelets; image filtering; image denoising; image compression; machine learning for image processing and analysis; deep learning of images; picture quality prediction; image analysis; 3D stereoscopic ranging. Three lecture hours a week for one semester. Electrical Engineering 371Q and 371R may not both be counted. Prerequisite: The following with a grade of at least C- in each: Biomedical Engineering 343 or Electrical Engineering 313, and Biomedical Engineering 335 or Electrical Engineering 351K or Mathematics 362K.

### **E E 372L. Network Engineering Laboratory.**

Local, metropolitan, and wide-area operations; telecommunication common carrier organization and services; administrative and political considerations; premise distribution systems; name resolution, address assignment, and mail; datagrams, packets, frames, and cells; addressing and network-level interconnection; internetwork architecture; TCP/IP protocol suite (v. 4 and 6); Ethernet and IEEE 802.3 standards; IEEE 802.11 standards and wireless access points; repeaters, hubs, bridges, routers; local area network emulation; public switched network access through POTS and ISDN; intradomain and interdomain routing; routing protocols, including RIP, OSPF, and BGP; multicast; media testing; local- and wide-area diagnostic tools. The equivalent of three lecture hours a week for one semester. Prerequisite: Electrical Engineering 372N with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **E E 372N. Telecommunication Networks.**

Circuit and packet-switched networks; local area networks; protocol stacks; ATM and broadband ISDN; Internet; routing, congestion control, and performance evaluation; multimedia applications. Three lecture hours a week for one semester. Prerequisite: The following with a grade of at least C- in each: Mathematics 340L, and Biomedical Engineering 343 or Electrical Engineering 313, and Biomedical Engineering 335 or Electrical Engineering 351K or Mathematics 362K.

### **E E 372S. Cryptography and Network Security.**

Distributed information system security; cryptographic tools; authentication; message security; system management. The equivalent of three lecture hours a week for one semester. Prerequisite: Mathematics 325K or 340L with a grade of at least C-.

### **E E 374K. Biomedical Electronic Instrument Design.**

Application of electrical engineering principles in the design of electronic instrumentation at the circuit-board level for the measurement of pressure, temperature, flow, and impedance. Also includes the study of light intensity, bioelectric potentials, and stimulation devices such as pacemakers and defibrillators. Focus on design considerations specific to electro-medical environments, safety and efficacy, and public policy issues. Three lecture hours a week for one semester. Prerequisite: Electrical Engineering 438 with a grade of at least C-.

### **E E 374L. Applications of Biomedical Engineering.**

An in-depth examination of selected topics in biomedical engineering, such as optical and thermal properties of laser interaction with tissue; measurement of perfusion in the microvascular system; diagnostic imaging; interaction of living systems with electromagnetic fields; robotic surgical tools; ophthalmic instrumentation; noninvasive cardiovascular measurements. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Electrical Engineering 374K with a grade of at least C-; and credit with a grade of at least C- or registration for Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T.

### **E E 377E. Interdisciplinary Entrepreneurship: Elective.**

Restricted to engineering students. Projects must differ significantly from those developed for Electrical Engineering 364D and 364E. Focus on skill development and mentoring in start-up formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Includes discussion of intellectual property, social issues in design, as well as ethical and safety considerations. Emphasis on written and oral presentation of start-up activities. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 374L, 378 (Topic: Longhorn Startup), Electrical Engineering 377E, Engineering Studies 377E, Management 337 (Topic: Interdisciplinary Entrepreneurship), 337 (Topic 2). Prerequisite: Consent of instructor.

### **E E 679H. Undergraduate Honors Thesis.**

Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Electrical

Engineering 679HA with a grade of at least C- and enrollment in the Engineering Honors Program.

### **E E 179K, 279K, 379K, 479K. Topics in Electrical Engineering.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Electrical Engineering 312 or 313 with a grade of at least C-, and consent of instructor.

#### **Topic 1: Conference Course.**

**Topic 15: Information Theory.** Measures of information; noiseless coding and data compression; discrete memoryless channels and channel capacity; broadcast channels; error-correcting codes. Additional prerequisite: The following with a grade of at least C- in each: Mathematics 340L, and Biomedical Engineering 343 or Electrical Engineering 313, and Biomedical Engineering 335, Electrical Engineering 351K, or Mathematics 362K.

#### **Topic 20: Computer Architecture: Personal Computer Design.**

Commercial general purpose processors, memory architecture, buses, storage devices, graphics subsystems, I/O devices and peripherals, audio subsystems, operating systems, benchmarking, manufacturing, and testing of personal computer systems. One class meeting may take place outside of normally scheduled class time for a tour of a PC manufacturing site. Additional prerequisite: Electrical Engineering 460N (or 360N) with a grade of at least C-.

**Topic 21: Information and Cryptography.** Information theory; construction of codes; cryptography, including security and randomized encryption; Kolmogorov complexity; statistics, including large deviations, nonparametrics, and information inequalities; Vapnik-Cervonenkis methods for learning theory. Additional prerequisite: The following with a grade of at least C- in each: Mathematics 340L, and Biomedical Engineering 343 or Electrical Engineering 313, and Biomedical Engineering 335, Electrical Engineering 351K, or Mathematics 362K.

**Topic 23: Software Evolution.** Software design principles; program differencing techniques; program transformation languages and tools; analysis, testing, debugging and visualization methods for evolving software. Electrical Engineering 379K (Topic: Software Evolution) and 379K (Topic 23) may not both be counted. Additional prerequisite: Electrical Engineering 461L with a grade of at least C-, or an equivalent computer science course with a grade of at least C-.

## **Graduate Courses**

### **E E 394. Topics in Power System Engineering.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in electrical engineering, or graduate standing and consent of instructor.

## **Professional Courses**

# **Energy and Earth Resources Courses**

## **Energy and Earth Resources: EER**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

### **EER 194, 294, 394. Directed Readings in Energy and Earth Resources.**

Restricted to students in the energy and earth resources program. Energy, water, and environmental issues related to the exploration, production, and consumption of energy in society. For each semester

hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **EER 396. Seminar in Energy and Earth Resources.**

Graduate seminar covering a wide range of issues in energy and earth resources. Three lecture hours a week for one semester, with additional hours for some topics. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Energy and Earth Resource Economics.** Same as Petroleum and Geosystems Engineering 383 (Topic 60: Energy and Earth Resource Economics). Theoretical and applied topics in natural resource economics, including project analysis, production theory, industrial organization, markets and regulation, and environmental economics. Additional prerequisite: Graduate standing in computational and applied mathematics, engineering, or geological sciences. Students seeking to enroll in this course must present technical prerequisites satisfactory to the instructor.

#### **Topic 2: Business, Finance, and Management.**

#### **Topic 3: Policy and Law.**

#### **Topic 4: Resource Economics and Econometrics.**

**Topic 5: Geology of Earth Resources.** Same as Geological Sciences 386R. Study of geologic, economic, societal, and environmental issues related to the production and consumption of energy, metal, industrial mineral, and water resources. Emphasizes the descriptive geology and origin of earth resources within the context of their overall geologic settings. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Energy and Earth Resources 396 (Topic: Geology of Earth Resources), 396 (Topic 5), Geological Sciences 386R, 391 (Topic: Geology of Earth Resources). May not be counted toward a graduate degree in geological sciences or petroleum engineering. Prerequisite: Graduate standing.

### **EER 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in energy and earth resources, at least nine semester hours of coursework in the energy and earth resources program, and consent of the graduate adviser; for 698B, Energy and Earth Resources 698A.

## **Professional Courses**

# **Energy Management Courses**

## **Energy Management: EMA**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

### **EMA 180, 280. Seminar in Energy Management.**

Meet with leading energy experts from industry and academia to discuss recent developments in technology, policy, law, and business. Conference course. For each hour of credit earned, the equivalent of one hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **EMA 182, 282, 382. Topics in Economics.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Environmental Economics.** Explore economic theory and public policy as they apply to environmental problems. Includes the role of market failure in explaining the existence of pollution,

alternative strategies for pollution control and environmental management, and global environmental issues.

**Topic 2: Managerial Economics.** Explore energy fundamentals through a detailed examination of the history, structure and functioning of the modern energy industry. Includes models of supply, demand, and transportation; market structure; game theoretic strategies and risk management; environmental issues; and policy and regulation.

**Topic 9: Advanced Economics.**

### EMA 184, 284, 384. Topics in Finance.

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Energy Markets and Risk Management.** Study how firms manage their financial risk exposures and how they use derivative securities.

**Topic 2: Valuation.** Explore financial modeling, derivatives in corporate finance, business valuation, and value-based management.

**Topic 3: Investments.** Analyze the investment decision-making process, including asset allocation, security analysis, risk and expected return measurement, asset-pricing models, and international investment.

**Topic 4: Advanced Corporate Finance.** Investigate advanced corporate financial management in the global marketplace, including valuation concepts, optimal capital structure, risk management, corporate control and restructuring, and mergers and acquisitions.

**Topic 5: Private Equity Mergers and Acquisitions.** Examine the application of advanced corporate finance concepts in the private equity markets and mergers and acquisitions.

**Topic 6: Energy and Environmental Markets.** Explore the business and public policy issues that these changes have raised in energy markets, and in the environmental markets to which they are closely tied using tools from economics and finance. Includes the development the political economy of deregulation, the environmental impacts and policies related to energy production and use, market power and antitrust in energy and environmental markets, and the transportation and storage of energy commodities.

**Topic 7: Environmental, Social, and Governance Investments.** Explore a conceptual and theoretical foundation for corporate ESG (Environmental, Social and Governance) policies and actions and investors' preferences regarding such policies and actions including how such policies and actions affect firm performance and investor reactions.

**Topic 8: Corporate Finance.** Explore principles of finance, with application to all aspects of the energy firm; particular attention to cost of capital, investment decisions, management of assets, and procurement of funds.

**Topic 9: Advanced Finance.**

### EMA 186, 286, 386. Topics in Accounting.

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Financial Accounting.** Explore transaction analysis, financial statement preparation, and analysis of financial statements.

**Topic 2: Cost Accounting.** Analyze manufacturing costs, and explore the development of cost estimates and preparation of relevant information for management decision making.

**Topic 3: Tax Accounting.** Introduction to the role of taxes in contemporary society and their impact on individuals and business entities, with an emphasis on federal income taxation.

**Topic 4: Environmental Accounting.** Explore the pursuit of the goal of sustainability. Investigate how corporate and government leaders must manage companies and economies in terms of balancing

and optimizing the triple bottom line of social, environmental, and economic impacts.

**Topic 5: Oil and Gas Accounting.** Introduction to oil and gas accounting for upstream operations related to exploration and development of oil and gas. Includes accounting principles and procedures for exploration, acquisition, drilling, development and production costs in different phases when searching for producing oil and gas.

**Topic 6: Energy Accounting.** Introduction to accounting for the energy industry. Includes accounting principles and procedures for exploration, acquisition, construction, development and production costs in different phases for a producer of electricity or oil and gas.

**Topic 7: Intermediate Accounting.**

**Topic 9: Advanced Accounting.**

### EMA 188, 288, 388. Topics in Management.

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Negotiations.** Explore the theories, processes, and practical techniques of negotiation to successfully negotiate and resolve disputes in a variety of situations including interpersonal, group, and international settings. Examine influence and conflict resolution strategies; identify interests, issues, and positions of the parties involved; analyze co-negotiators, their negotiation styles, and the negotiation situations; and manage the dynamics associated with most negotiations.

**Topic 2: Entrepreneurship.** Identify innovations and market opportunities. Explore how to write a business plan, obtain funding, and launch a new company.

**Topic 3: Creating and Managing Human Capital.** Investigate issues related to making human resource decisions in a more effective manner. Explore a strategic perspective, with particular emphasis on the links between human resource decisions and a firm's competitive position.

**Topic 4: Strategy.** Analyze business situations from the point of view of the practicing general manager. Address key tasks involved in general management, including strategic decisions that ensure the long-term health of the entire firm or a major division.

**Topic 9: Advanced Strategy.**

### EMA 190, 290, 390. Topics in Quantitative Analysis.

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate Standing.

**Topic 1: Decision Analysis.** Study decision-making under risk and with multiple criteria. Focus on strategic decisions and operational decisions using decision trees, simulation and other quantitative tools.

**Topic 2: Supply Chain.** Investigate the operations or production functions, and the skills required for analyzing and solving related problems.

**Topic 3: Project Management.** Explore project management through a proven framework for leading and directing projects and teams to deliver project results within constraints such as schedule, budget, and available resources.

**Topic 4: Getting Product to Market and Trading.** Provide students a basic understanding of the various aspects of the energy supply chain covering the crude oil, natural gas and electric power supply chains with a focus on how energy products are transported from where they are produced to their ultimate markets.

**Topic 5: Optimization.** Frame, formulate, and apply quantitative optimization and descriptive models to management decisions, using spreadsheets and other software.

**Topic 6: Information Technology.** Explore the in-depth treatment of business data processing concerns such as database management, telecommunications, and the development of commercial systems.

**Topic 7: Analytics.** Investigate methods used to model and analyze data. Explore regression models and time-series models and their application in the area of energy.

**Topic 8: Operations and Supply Chain.** Investigate the operations or production functions, and the skills required for analyzing and solving related problems. Explore the use of developed predictive dynamic models in operations planning and operations decision making.

**Topic 9: Advanced Analytics.**

### **EMA 192, 292, 392. Topics in Marketing.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Energy Consumer Behavior.** Examine the acquisition and consumption of goods, services, time, and ideas by individuals and groups in the energy industry, including normative and descriptive theories.

**Topic 2: Consumer Analysis.** Introduction to the data and tools used to analyze the business environment and enable marketing decision making. Use real-world data and problems to evaluate strategic market opportunities and assess the impact of marketing decisions in the marketplace.

### **EMA 194, 294, 394. Topics in Law.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Law and Agreements.** Explore contracts and transfers by oil and gas lessees such as assignments, farmouts, operating agreements, purchase and sale agreements, and master service agreements. Consider the oil and gas development on federal, state, and American Indian lands as well as environmental regulation of the petroleum industry.

**Topic 2: Real Estate Law and Contracts.** Explore the legal framework of commercial real estate finance and development, including basic real estate law concepts, legal aspects of financing techniques and instruments, subdivision land-use controls, and the environmental regulation of real estate development.

**Topic 3: Domestic Petroleum Transactions.** Explore the practical aspects of the U.S. oil and gas legal regime, focusing on the relationship between energy companies and regulatory authorities. Investigate bankruptcy, energy finance, and land use control, as well as purchase of domestic oil and gas assets by foreigners.

**Topic 4: International Petroleum Transactions.** Explore international petroleum transactions in the context of a single industry. Includes the various participants and transactions that take place at each stage of the industry, from acquisition of development rights through exploration and production to transportation and marketing.

**Topic 5: Environmental Law.** Introduction to environmental thinking in the context of scarce publicly and privately owned natural resources. Explore the public trust doctrine, relevance of the Tenth Amendment to environmental protection, the National Endowment Policy Act, the Endangered Species Act, and the Fish and Wildlife Coordination Act.

**Topic 6: Law and Policy.** An introduction to the legal and regulatory regimes governing the energy industry, as well as the important economic and political concerns that underlie the regulation of the production and sale of energy.

**Topic 9: Advanced Law.**

### **EMA 196, 296, 396. Topics in Engineering and Science.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Oil and Gas Capstone.** Reinforce the interdisciplinary nature of developing petroleum assets. Includes the key stages of project development, such as: acquisition, exploration, development, production, abandonment, and exit.

**Topic 2: Electricity Capstone.** Reinforce the interdisciplinary nature of developing electricity generation assets. Explore the key stages of project development, including site selection, life-cycle analysis, due diligence, permitting, contracting, and financing.

**Topic 3: Energy Technology and Policy.** Explore the understanding of the broad context of energy production and consumption in the U.S. and the world. Discuss past energy trends and fundamentals of energy and power, including fossil fuels and renewable energy sources and technologies. Explore different energy resources, environmental impacts, and societal uses of energy. Evaluate future energy technology options.

**Topic 4: Electricity Systems.** Explore the locational marginal pricing (or nodal) model of organized or centralized day-ahead and real-time electricity markets. Investigate the solution of power flow, formulate optimal dispatch as an optimization problem, consider offer-based economic dispatch, transmission and unit commitment issues. Discuss pricing rules and incentives in markets, particularly in the context of transmission limits. Examine energy and transmission price risk hedging, network models, and capacity adequacy.

**Topic 5: Petroleum Systems.** Introduction to the petroleum system, including source rocks and reservoirs, maturation and migration of hydrocarbons, traps and seals, rock properties, basin, play and prospect risking and assessment and tools for subsurface analysis (wells and seismic) for nontechnical personnel. Examine prospecting strategies and leasing.

**Topic 6: Petroleum Engineering.** Introduction to drilling, reservoir engineering, surface facilities and processing, pipelines, and project abandonment for nontechnical personnel.

**Topic 7: Energy Networks.** Introduction to analysis, design and management of complex integrated systems typically in midstream oil and gas processes and electric grids.

**Topic 8: Advanced Electricity Systems.**

**Topic 9: Advanced Petroleum Systems.**

**Topic 10: Technology and Policy.** Investigate the broad context of energy production and consumption in the U.S. and the world. Discuss past energy trends and fundamentals of energy and power, including fossil fuels and renewable energy sources and technologies. Explore different energy resources, environmental impacts, and societal uses of energy, and evaluate future energy technology options.

**Topic 11: Financial Strategies for Energy Firms.** Perform an integrated analysis of the interaction between the investment and operating policies of a corporation and its financial strategies, with special emphasis on firms in the energy industry.

### **EMA 197, 297, 397. Advanced Energy Management.**

Focus on the economics, strategy, business valuation, technology, science, policy and finance specific to the energy industry. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

## **Professional Courses**

# Engineering Management Courses

## Engineering Management: ENM

### Lower-Division Courses

### Upper-Division Courses

### Graduate Courses

#### **ENM 380E. Topics in Management of People, Processes, Projects, and Organizations.**

Restricted to students in the engineering management degree program. Explore engineering management processes and how these processes are used by administrators and managers. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**Topic 1: Managing People and Organizations.** Introduction to frameworks from the social sciences that are useful for understanding what effective leaders do when working with others. Engineering Management 380 (Topic 1) and 380E (Topic 1) may not both be counted. Offered on the letter-grade basis only.

**Topic 2: Engineering Project Management.** Explore methods for organizing, coordinating, and controlling resources to minimize risk and conflict, and to maintain budgets and schedules. Discuss the evaluation of competing alternatives, organization of a project, scheduling of tasks and resources, and the role of management. Engineering Management 380E (Topic 2) and 383 (Topic 1) may not both be counted. Offered on the letter-grade basis only.

#### **ENM 381E. Topics in Business Foundations.**

Restricted to students in the engineering management degree program. Survey important topics and foundational ideas in business, as applied within an engineering environment. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**Topic 1: Marketing and Negotiation.** Explore major marketing concepts and variables, their interrelationships, and their implications for policy making, problem solving, and strategy formulation. Examine the development of sophisticated strategies and tactics to pursue mutually beneficial solutions. Only one of the following may be counted: Engineering Management 380 (Topic 2), 380 (Topic 3), 380 (Topic 4), 381E (Topic 1). Offered on the letter-grade basis only.

**Topic 2: Legal Issues and Technology Management.** Examine legal considerations in the practice of engineering management. Explore management disciplines to create maximum value from technology. Engineering Management 381 (Topic 1) and 381E (Topic 2) may not both be counted. Offered on the letter-grade basis only.

**Topic 3: Finance and Accounting for Engineering Managers.** Introduction to fundamental concepts in finance and accounting with application. Explore how to evaluate investment and financing opportunities in a corporation. Engineering Management 381E (Topic 3) and 384 may not both be counted. Offered on the letter-grade basis only.

#### **ENM 382E. Topics in Decision Making.**

Restricted to students in the engineering management degree program. Explore methods to make high-quality decisions in an engineering environment. The equivalent of three lecture hours a week for one

semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**Topic 1: Analytics for Engineering Managers.** Explore theory and tools that allow the engineering manager to draw correct inferences from data and include those inferences in the decision-making process. Examine descriptive, predictive, and prescriptive analytics and statistics. Offered on the letter-grade basis only.

**Topic 2: Strategic Decision and Risk Analysis.** Explore tools and methods for making high-quality decisions in the face of uncertainty, applied within an engineering context. Learn how to frame and analyze major decisions and how to overcome the biases that can degrade these decisions. Engineering Management 382E (Topic 2) and 383 (Topic 2) may not both be counted. Offered on the letter-grade basis only.

**Topic 3: Engineering Operations Management.** Examine methods to improve the efficiency of an organization's operations. Explore management of production systems, inventory management, logistics, and supply-chain management. Offered on the letter-grade basis only.

#### **ENM 385C. Projects in Engineering Management I.**

Restricted to students in the engineering management program. First course in a two-semester sequence that concludes with Engineering Management 385D. Independent project carried out under the supervision of an engineering management faculty member. Individual instruction. Engineering Management 385C and 397P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **ENM 385D. Projects in Engineering Management II.**

Restricted to students in the engineering management program. Continuation of Engineering Management 385C. Independent project carried out under the supervision of an engineering management faculty member. Individual instruction. Engineering Management 385D and 397P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Engineering Management 385C.

#### **ENM 397K. Engineering Management Seminar.**

Current topics in engineering management. Conference course. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and admission to the engineering management degree program.

#### **ENM 397P. Projects in Engineering Management.**

Independent project carried out under the supervision of an engineering management faculty member. Conference course. Engineering Management 385C and 397P may not both be counted. Engineering Management 385D and 397P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the engineering management degree program.

#### **ENM 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in engineering management and consent of the graduate adviser. For 698B, Engineering Management 698A.

#### **ENM 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and admission to the engineering management degree program.

## Professional Courses

# Engineering Mechanics Courses

## Engineering Mechanics: E M

### Lower-Division Courses

#### **E M 306 (TCCN: ENGR 2301). Statics.**

Vector algebra, force systems, free-body diagrams; engineering applications of equilibrium, including frames, friction, distributed loads; centroids, moments of inertia. Three lecture hours and two discussion hours a week for one semester. Prerequisite: Mathematics 408D, 408L, 408M, or 408S, and Physics 301 or 303K with a grade of at least C- in each.

#### **E M 311M (TCCN: ENGR 2302). Dynamics.**

Kinematics, dynamics, and energy and momentum methods for points as well as 2D/3D rigid bodies. Describe and predict the motion of different types of rigid bodies in space and time. Vibrations of simple systems. Three lecture hours and two discussion hours a week for one semester. Prerequisite: Engineering Mechanics 306, and Mathematics 408D or 408M with a grade of at least C- in each.

#### **E M 319 (TCCN: ENGR 2332). Mechanics of Solids.**

Internal forces and deformations in solids; stress and strain in elastic and plastic solids; application to simple engineering problems. Three lecture hours a week for one semester, with discussion hours if necessary. Prerequisite: Engineering Mechanics 306, and Mathematics 408D or 408M with a grade of at least C- in each.

#### **E M 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Engineering Mechanics.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's International Engineering Education programs. Credit is recorded as assigned by the study abroad adviser in the Department of Aerospace Engineering and Engineering Mechanics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### Upper-Division Courses

#### **E M 339. Advanced Strength of Materials.**

Same as Aerospace Engineering 339. Curved beams, shear deformation, beam columns, beams on elastic foundations; inelastic behavior of members; elementary plate bending. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 319 with a grade of at least C-.

#### **E M 360. Studies in Engineering Mechanics.**

Advanced work in the various areas of engineering mechanics, based on recent developments. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing in engineering and consent of instructor.

**Topic 4: Theory of Material Science.**

**Topic 13: Applications of Finite Element Methods.**

#### **E M 179S, 279S, 379S, 479S, 579S, 679S, 779S, 879S, 979S. Topics in Engineering Mechanics.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's International Engineering Education Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Aerospace Engineering and Engineering Mechanics. University credit is awarded for work in an exchange program; it may be

counted as coursework taken in residence. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### Graduate Courses

#### **E M 380. Theory of Plasticity.**

Physical basis of plastic deformation; mathematical theory of incremental plasticity; total theories; numerical implementation; slip and physical theories of plastic deformation; rate dependent (viscoplastic) models; applications to several engineering problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Engineering Mechanics 388 or the equivalent.

#### **E M 381. Advanced Dynamics.**

Dynamics of systems of particles and rigid bodies; vibration theory; analytical dynamics, including Lagrangian and Hamiltonian formulations; dynamic stability; continuous systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **E M 382. Nonlinear Analysis.**

Methods for analyzing various types of nonlinear differential equations of dynamical systems; exact methods, perturbation and averaging techniques, direct method of Liapunov. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **E M 384K. Continuum Mechanics.**

Foundations of the general nonlinear theories of continuum mechanics; general treatment of motion and deformation of continua, balance laws, constitutive theory; particular application to elastic solids and simple materials. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Engineering Mechanics 386K or consent of instructor.

#### **E M 384L. Structural Dynamics.**

Same as Aerospace Engineering 384P (Topic 3: Structural Dynamics). Free and forced vibration of single-degree-of-freedom, multiple-degree-of-freedom, and continuous systems. Lagrange's equations and Hamilton's principle; discretization of continuous systems; numerical methods for response and algebraic eigenvalue problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **E M 386K. Analytical Methods I.**

Basic topics in real and complex analysis, ordinary and partial differential equations, and other areas of applied mathematics with application to applied mechanics. Three lecture hours a week for one semester. Aerospace Engineering 380P (Topic 1) and Engineering Mechanics 386K may not both be counted. Prerequisite: Graduate standing.

#### **E M 386L. Analytical Methods II.**

Continuation of Engineering Mechanics 386K. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 380P (Topic 2), Computational Science, Engineering, and Mathematics 386L, Engineering Mechanics 386L. Prerequisite: Graduate standing, and Engineering Mechanics 386K or consent of instructor.

#### **E M 386M. Functional Analysis in Theoretical Mechanics.**

Same as Computational Science, Engineering, and Mathematics 386M. An introduction to modern concepts in functional analysis and linear operator theory, with emphasis on their application to problems in theoretical mechanics; topological and metric spaces, norm linear spaces, theory of linear operators on Hilbert spaces, applications to boundary value problems in elasticity and dynamical systems. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 386M and Engineering Mechanics 386M

may not both be counted. Prerequisite: Graduate standing, Engineering Mechanics 386L, and Mathematics 365C.

#### **E M 386N. Qualitative Methods in Nonlinear Mechanics.**

A study of methods for assessing the qualitative behavior of solutions to equations governing nonlinear continuum mechanics. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Engineering Mechanics 386M.

#### **E M 387. Foundations of Fluid Mechanics.**

Governing equations in differential and integral forms; applications to both inviscid and viscous flow problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **E M 388. Solid Mechanics I.**

Same as Aerospace Engineering 384P (Topic 1: Solid Mechanics I). Mathematical description of stress, deformation, and constitutive equations of solid mechanics; boundary value problems of elasticity. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **E M 388F. Fracture Mechanics.**

Griffith theory of brittle crack propagation, other theories, crack toughness testing concepts. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Engineering Mechanics 388 or consent of instructor.

#### **E M 388L. Solid Mechanics II.**

Same as Aerospace Engineering 384P (Topic 2: Solid Mechanics II). Continuation of Engineering Mechanics 388. Additional topics in elasticity, plasticity, viscoelasticity, variational methods, and other areas of solid mechanics. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Engineering Mechanics 388 or Aerospace Engineering 384P (Topic 1), and consent of instructor.

#### **E M 388M. Micromechanics.**

Constitutive characterization of materials based on their microstructure. Relationships between internal structure and mechanical properties for composites, polycrystals, and polymers on the basis of linear elasticity, plasticity, and theories that account for rate-dependence. Three lecture hours a week for one semester. Prerequisite: Graduate standing and a graduate course in solid mechanics.

#### **E M 388V. Theory of Viscoelasticity.**

Introduction to linear viscoelasticity; methods of characterizing viscoelastic material behavior; analytical and approximate solution techniques for engineering problems, including contact, wave propagation, and thermoviscoelastic problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Engineering Mechanics 388 or consent of instructor.

#### **E M 389J. Experimental Mechanics.**

Principles and techniques of measurement in mechanics; includes discussion of strain gauges, optical interference methods, photoelasticity, and dynamic measurements. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing.

#### **E M 391. Behavior and Mechanics of Active/Smart Materials.**

Continuum physics and thermodynamics including thermal, mechanical, electrical and magnetic behaviors of active/smart materials. Linear and non-linear behavior of ferroelectrics, ferromagnetic materials, and shape memory alloys. Crystal symmetry, domain structure, phenomenological

constitutive models, phase-field modeling, and dielectric elastomers. Three lecture hours a week for one semester.

#### **E M 392R. Random Vibrations.**

Introduction to probability theory and its application to random excitation of linear and nonlinear systems; a probabilistic discussion of failure and fatigue in structures. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **E M 393N. Numerical Methods for Flow and Transport Problems.**

Approximate solution methods for flow and transport problems in engineering and applied science. Finite element, finite difference, and residual methods for linear and nonlinear problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **E M 394. Structural Stability.**

Fundamental theory of buckling of elastic structural elements such as bars, frames, rings, plates, and shells; also special stability topics including inelastic buckling, creep buckling, and buckling under dynamic loading. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Engineering Mechanics 388 or consent of instructor.

#### **E M 394F. Finite Element Methods.**

Same as Aerospace Engineering 384P (Topic 4) and Computational Science, Engineering, and Mathematics 393F. Derivation and implementation of the finite element method; basic coding techniques; application to problems of stress and diffusion. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 384P (Topic 4), Computational Science, Engineering, and Mathematics 393F, Engineering Mechanics 394F. Prerequisite: Graduate standing and consent of instructor.

#### **E M 394G. Computational Techniques in Finite Elements.**

Organization and data management in finite element codes; element models and calculations; equation solving; preprocessing and postprocessing. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Engineering Mechanics 394F.

#### **E M 394H. Advanced Theory of Finite Element Methods.**

Contemporary topics in the theory and application of finite element methods. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Engineering Mechanics 394F, and Engineering Mechanics 386L or the equivalent.

#### **E M 394V. Wave Propagation I.**

Solutions of linear wave equations; waves in elastic media, including plates and cylinders; transient waves, transform methods, asymptotic approximation. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Engineering Mechanics 388 or consent of instructor.

#### **E M 397, 697, 997. Advanced Studies in Engineering Mechanics.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Advanced Topics in Viscoelasticity.**

**Topic 2: Individual Research.**

**Topic 3: Advanced Computational Flows and Transport.**

**Topic 4: Grid Generation and Adaptive Grids.**

**Topic 5: Adaptive Boundary/Finite Element Methods.**

### **E M 397R, 697R. Individual Research.**

Must be arranged by mutual agreement between student and faculty member. Individual research. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **E M 397S. Mechanics Seminar.**

Current topics in mechanics. Conference course. All engineering mechanics graduate students are required to register for either Engineering Mechanics 397S or 397T each semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **E M 397T. Computational Mechanics Seminar.**

Current topics in computational mechanics. Conference course. All engineering mechanics graduate students are required to register for either Engineering Mechanics 397S or 397T each semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **E M 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in engineering mechanics and consent of the supervising professor and the graduate adviser; for 698B, Engineering Mechanics 698A.

### **E M 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in engineering mechanics and consent of the graduate adviser.

### **E M 398T. Supervised Teaching in Engineering Mechanics.**

Teaching methods and objectives, criteria for evaluating teaching effectiveness, procedures and regulations, laboratory teaching. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and appointment as a teaching assistant.

### **E M 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Engineering Studies Courses**

## **Engineering Studies: E S**

### **Lower-Division Courses**

#### **E S 301. Engineering Design and Problem Solving.**

Intended for non-Cockrell School of Engineering students. Introduction to the scope of engineering, foundations of engineering science, and engineering design. Three lecture hours a week for one semester.

#### **E S 102. Spatial Visualization.**

Restricted to engineering majors. Instruction in the learned ability to mentally manipulate two- and three-dimensional structures. The equivalent of one lecture hour a week for one semester. Engineering Studies 102 and General Engineering 119, 219, 319 (Topic: Spatial Visualization) may not both be counted. Offered on the letter-grade basis only.

### **E S 119, 219, 319. Topics in Engineering.**

Restricted to engineering students. For each semester hour of credit earned, one lecture hour a week for one semester. Engineering Studies 119, 219, 319 and General Engineering 119, 219, 319 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

## **Upper-Division Courses**

### **E S 321G. GLUE Undergraduate Research.**

Restricted to engineering majors. Research experience and seminar for undergraduate engineers. Seminar involves workshops, discussion, and oral reports. Semester long research project required. One and one-half lecture hours and six laboratory hours a week for one semester, with additional laboratory hours to be arranged. Only one of the following may be counted unless topics vary: Engineering Studies 122, 222, 322, 321G (or 322G), General Engineering 222. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

### **E S 122, 222, 322. Topics in Professional Development.**

Restricted to engineering students. Small-group seminar involving reading, discussion, and oral reports. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted unless topics vary: Engineering Studies 122, 222, 322, 321G (or 322G), General Engineering 222. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

**Topic 1: EOE Career Development Seminar.** Introduction to skills and professional practices in engineering. Engineering Studies 122, 222, 322 (Topic: EOE Career Development Seminar) and 122, 222, 322 (Topic 1) may not both be counted. Offered on the pass/fail basis only.

**Topic 2: EOE Leadership Development Seminar.** Introduction to professional practices that focus on self-awareness and in-depth discussion of leadership styles and skill development. Engineering Studies 122, 222, 322 (Topic: EOE Leadership Development Seminar) and 122, 222, 322 (Topic 2) may not both be counted. Offered on the pass/fail basis only.

**Topic 3: WEP Leadership Seminar.** Practical applications to assess leadership and communication styles. Engineering Studies 122, 222, 322 (Topic: WEP Leadership Seminar) and 122, 222, 322 (Topic 3) may not both be counted. Offered on the pass/fail basis only.

### **E S 225C. Humanitarian Product Design.**

Design a product that addresses the needs of people in marginalized communities such as those living in refugee camps or in other severely resource-limited environments. Examine and apply design tools, project management methods, and other principles of product development. Present project to an advisory board. Two lecture hours and two laboratory hours a week for one semester. Engineering Studies 225C and 277 (Topic: Humanitarian Product Design) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Consent of the instructor.

### **E S 225D. Humanitarian Product Prototyping.**

Build and test prototype. Examine and apply design tools, project management methods, and other principles of product development. Present project to an advisory board. Two lecture hours and two laboratory hours a week for one semester. Engineering Studies 225D and 277 (Topic: Humanitarian Product Prototyping) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Engineering Studies 225C with a grade of at least C- and consent of instructor.

### **E S 333T. Engineering Communication.**

Explore technical communication skills for engineers, especially researching and writing technical documents for many kinds of readers, managing and documenting sources of information, using and explaining

graphics, delivering oral presentations, working collaboratively, and eliciting information from experts and stakeholders. Two lecture hours and one-and-one-half laboratory hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 333T, Biomedical Engineering 333T, Communication 333T, Civil Engineering 333T, Chemical Engineering 333T, Electrical Engineering 333T, Engineering Studies 333T, Mechanical Engineering 333T, Petroleum and Geosystems Engineering 333T.

### **E S 358C. Industrial Design I.**

Same as Design 358C. Restricted to design majors. Explore methods and techniques for industrial design. Six studio hours a week for one semester. Design 358C and Engineering Studies 358C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Design 314 or Engineering Studies 319.

### **E S 160, 260, 360. Service Learning for Engineers.**

Supervised participation in a service-learning project that helps meet a community need. May be repeated for credit when the projects vary. With approval of the student's major department, may be counted toward an engineering degree. Prerequisite: Consent of instructor.

### **E S 360M. Experiments in Materials Science and Engineering.**

Hands-on lab-based course designed to teach practical techniques in the synthesis and characterization of materials and their properties, and to use experiments to explore fundamental and potentially abstract materials concepts. Four-and-one-half laboratory hours a week for one semester. Engineering Studies 360M and 377 (Topic: Experiments in Materials Science and Engineering) may not both be counted. Prerequisite: Chemistry 301, Math 408C, 408D and 427J, and Physics 303K and 303L. For students in majors that offer an introductory materials science and engineering course, it is advised to take it prior to taking this course.

### **E S 370H. Engineering Entrepreneurship.**

Principles of engineering entrepreneurship, including legal aspects and the ethics of practice. Three lecture hours a week for one semester. Engineering Studies 370H and General Engineering 370H may not both be counted. Prerequisite: Admission to an appropriate major sequence in engineering and to the Engineering Honors Program.

### **E S 370L. Nanofabrication and Nanomaterials.**

Covers the basic tools and materials involved in the fabrication processes needed to create nano-scale structures and functional nanomaterials. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and consent of instructor.

### **E S 370M. Nanodevices.**

Covers the basic theory behind nano-scale devices used in the electronics, display, and energy industries. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Engineering Studies 370L, and consent of instructor.

### **E S 370N. Nanotechnology Innovation.**

Provides a framework for innovation with a specific focus on applications of nanotechnology. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Engineering Studies 370L and 370M, and consent of instructor.

### **E S 370O. Nanometrology and Big Data.**

Explore key concepts of metrology and data analytics in nanomanufacturing systems. Discuss the key steps in big data analytics which enable transformation of metrology and sensing data into optimal decisions. Examine key enabling methodologies and examples for statistical and dynamic modeling of big data in nanomanufacturing

systems, as well as how those models are used for system-wide optimal decisions in terms of process control and system operations. Three lecture hours a week for one semester. Prerequisite: Engineering Studies 370M, upper-division standing, and consent of instructor.

### **E S 177, 277, 377. Topics in Engineering.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Longhorn Startup Seminar.** Overview of entrepreneurship using real-world examples. Only one of the following may be counted: Biomedical Engineering 177T, 277T, 377T (Topic: Longhorn Startup Seminar), Computer Science 178, 378 (Topic: Longhorn Startup Seminar), Engineering Studies 177, 277, 377 (Topic: Longhorn Startup Seminar), 177, 277, 377 (Topic 1), Fine Arts 160, 260, 360 (Topic: Longhorn Startup Seminar), 170, 270, 370, Management 137, 237, 337 (Topic: Longhorn Startup Seminar), Communication 125, 225, 325 (Topic: Longhorn Startup Seminar).

**Topic 2: 21st Century Grand Challenges.** Restricted to Cockrell School of Engineering students. Explore the five components of the NAE Grand Challenges Scholars Program: grand challenges research and design, interdisciplinary curriculum, entrepreneurship, global perspectives, and service learning. Engineering Studies 377 (Topic: Grand Challenges-21st Century) and 177, 277, 377 (Topic 2) may not both be counted.

### **E S 377E. Interdisciplinary Entrepreneurship: Elective.**

Restricted to engineering students. Projects must differ significantly from those developed for Electrical Engineering 364D and 364E. Focus on skill development and mentoring in start-up formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Includes discussion of intellectual property, social issues in design, as well as ethical and safety considerations. Emphasis on written and oral presentation of start-up activities. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 374L, 378 (Topic: Longhorn Startup), Electrical Engineering 377E, Engineering Studies 377E, Management 337 (Topic: Interdisciplinary Entrepreneurship), 337 (Topic 2). Prerequisite: Consent of instructor.

### **E S 277K. Project Development with Underserved Communities.**

Restricted to engineering and social work majors. Focus on skills to initiate, evaluate, and plan an international engineering service project with an underserved community. Two lecture hours and two lab hours a week for one semester. Only one of the following may be counted: Engineering Studies 277K, Civil Engineering 277K (Topic: Project Development for Underserved Communities), Mechanical Engineering 279M (Topic: Project Development for Underserved Communities). Offered on the letter-grade basis only. Prerequisite: Consent of the instructor.

### **E S 277L. Project Design with Underserved Communities.**

Restricted to students in the Projects for Underserved Communities program. Focuses on design of basic infrastructure systems in developing countries. Two lecture hours and two lab hours a week for one semester. Only one of the following may be counted: Engineering Studies 277L, Civil Engineering 277K (Topic: Project Design for Underserved Communities), Mechanical Engineering 279M (Topic: Project Design for Underserved Communities). Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

### **E S 177M. Project Implementation with Underserved Communities.**

Restricted to students in the Projects for Underserved Communities program. Taught on location in international locations such as India, Tanzania, and Guatemala. Entails implementation of project, collecting information for future projects, and checking on previously completed PUC projects if applicable. The equivalent of one lecture hour a week for one semester. Only one of the following may be counted: Engineering Studies 177M, 177 (Topic: Proj Impl Undersrvd Comms-Gua), 177 (Topic: Proj Implm Undersrvd Comms-Ind), 177 (Topic: Proj Implm Undersrvd Comms-Tan), 177 (Topic: Proj Implm Undersrvd Comms-Tha), Mechanical Engineering 179M (Topic: Project Imp Underserved Commun), 179M (Topic: PUC Implementation-Intl). Offered on the letter-grade basis only.

### **E S 279K. Undergraduate Research Experience.**

Restricted to undergraduate students in the Graduates Linking with Undergraduates in Engineering (GLUE) program. Directed study or research in a selected area of engineering. One lecture hour and three laboratory hours a week for one semester. Engineering Studies 279K and General Engineering 279K may not both be counted. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: A major in engineering and a University grade point average of at least 3.00.

### **E S 279L. Women in Engineering Leadership Seminar.**

Restricted to engineering students. Lectures, discussions, and exercises related to various leadership issues. Two lecture hours a week for one semester. Engineering Studies 279L and General Engineering 279L may not both be counted. Offered on the pass/fail basis only.

### **E S 079M. Undergraduate Research Experience.**

Restricted to undergraduate students in the Equal Opportunity in Engineering Program. One lecture hour a week for one semester. Prerequisite: A major in engineering and a University grade point average of at least 3.00.

## **Graduate Courses**

### **E S 380L. Nanofabrication and Nanomaterials.**

Provides an understanding of the basic tools and materials involved in the fabrication processes needed to create nano-scale structures and functional nanomaterials. Three lecture hours a week for one semester. Engineering Studies 377 (Topic: Nanofabrication/Nanomats-WB) and 380L may not both be counted. Prerequisite: Consent of graduate adviser and consent of instructor.

### **E S 380M. Nanodevices.**

Provides an understanding of the basic theory behind important nano-scale devices used in the electronics, display, and energy industries. Three lecture hours a week for one semester. Prerequisite: Consent of graduate adviser and consent of instructor.

### **E S 380N. Nanotechnology Innovation.**

Provides a framework for innovation with a specific focus on applications of nanotechnology. Three lecture hours a week for one semester. Prerequisite: Engineering Studies 380L and 380M. Consent of graduate adviser and consent of instructor.

### **E S 380O. Nanometrology and Big Data.**

Explore key concepts of metrology and data analytics in nanomanufacturing systems. Discuss the key steps in big data analytics which enable transformation of metrology and sensing data into optimal decisions. Examine key enabling methodologies and examples for statistical and dynamic modeling of big data in nanomanufacturing systems, as well as how those models are used for system-wide optimal

decisions in terms of process control and system operations. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Engineering Studies 380M, consent of graduate advisor, and consent of instructor.

### **E S 197, 297, 397. Special Subjects in Engineering.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. With consent of instructor, may be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

## **Professional Courses**

# **English as a Second Language Courses**

## **English as a Second Language: ESL**

### **Lower-Division Courses**

#### **ESL 501G. English Language Grammar.**

Restricted to international exchange students. Focus on improving understanding and use of English grammar in speaking and writing, as well as an introduction to American idioms. Five lecture hours a week for one semester. With consent of instructor, may be repeated for credit. May not be counted toward any University of Texas at Austin degree. Prerequisite: English as a second language placement test and consent of instructor.

#### **ESL 501R. English Language Reading.**

Restricted to international exchange students. Focus on improving reading skills with an emphasis on understanding and discussing a variety of texts, using effective reading strategies, developing vocabulary, and increasing reading speed. Five lecture hours a week for one semester. With consent of instructor, may be repeated for credit. May not be counted toward any University of Texas at Austin degree. Prerequisite: English as a second language placement test and consent of instructor.

#### **ESL 501S. English Language Speaking.**

Restricted to international exchange students. Focus on improving listening and speaking through activities such as note-taking, conversation practice, and participating in discussions. Emphasis on speaking in a variety of contexts; developing appropriate pronunciation, pitch, rhythm, and stress; increasing fluency; and expanding spoken vocabulary. Five lecture hours a week for one semester. With consent of instructor, may be repeated for credit. May not be counted toward any University of Texas at Austin degree. Prerequisite: English as a second language placement test and consent of instructor.

#### **ESL 501W. English Language Writing.**

Restricted to international exchange students. Focus on improving writing skills by increasing writing fluency and accuracy at the sentence, paragraph, and essay levels. Emphasis on structure, organization, and development of ideas. Five lecture hours a week for one semester. With consent of instructor, may be repeated for credit. May not be counted toward any University of Texas at Austin degree.

#### **ESL 302S. Academic Listening and Speaking.**

Restricted to international students. Focuses on the English language skills necessary for understanding lectures, taking notes, participating in and leading discussions, and giving effective presentations. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. May not be counted toward any University of Texas at Austin degree.

### **ESL 302W. Academic Reading and Writing.**

Restricted to international students. Focuses on the English language skills necessary for reading and discussing academic texts, using new vocabulary, composing short papers, and writing research projects. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. May not be counted toward any University of Texas at Austin degree. Prerequisite: Consent of instructor.

## **Upper-Division Courses**

### **Graduate Courses**

#### **ESL 388S. Oral Communication.**

Restricted to international students. Practicum in speaking skills. Focuses on pronunciation, fluency, grammatical accuracy, vocabulary development, formal presentations, and graduate-level discussions. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Offered on the credit/no credit basis only. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

#### **ESL 388T. Basic Speaking Skills.**

Restricted to international students. Preparation for the International Teaching Assistant Oral English Proficiency Assessment. Practice focuses on the five tasks required in the assessment: summary, vocabulary list, reading, concept and graph explanations, and personal introduction. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Offered on the credit/no credit basis only. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

#### **ESL 388W. Academic Writing.**

Restricted to international students. Practicum in writing skills. Focuses on basic syntax and sentence structure, paragraph and essay writing, and basic research writing. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

#### **ESL 389S. Advanced Oral Communication.**

Restricted to international students. Focuses on accuracy and development of the speaking skills needed in academic contexts. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

#### **ESL 389T. Communication and Teaching Culture.**

Restricted to international students. Focuses on pronunciation, presenting and summarizing information, and relevant topics in intercultural communication. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Offered on the credit/no credit basis only. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

#### **ESL 389W. Advanced Academic Writing.**

Restricted to international students. Focuses on the writing skills needed for qualifying exams, research, and conference papers. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

## **Professional Courses**

# **English Courses**

## **English: E**

### **Lower-Division Courses**

#### **E 303C. Plan II World Literature Part I.**

Restricted to Plan II students. Reading of masterpieces of world literature and intensive training in writing and in critical analysis of literature. Three lecture hours a week for one semester. Only one of the following may be counted: English 603A, 303C, Rhetoric and Writing 306, 306Q, Tutorial Course 603A, 303C.

#### **E 303D. Plan II World Literature Part II.**

Restricted to Plan II students. Reading of masterpieces of world literature and intensive training in writing and in critical analysis of literature. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 315, English 303D, (603B), 316N, Tutorial Course 303D, (603B). Prerequisite: English 303C or Tutorial Course 303C.

#### **E 310C. Literature and Community Engagement.**

The equivalent of three lecture hours a week for one semester.

#### **E 310D. Introduction to Digital Studies.**

Explore the critical application of exploratory techniques in digital scholarship in the humanities, including principles of exploratory data analysis programming language to perform both analysis and visualization. Critique how text, images, and audio are analyzed and represented from a humanistic perspective that considers intersectional power dynamics surrounding ability, class, gender, and race in culture. Three lecture hours a week for one semester. Only one of the following may be counted: English 310D, Information Studies 315E (Topic: Intro to Digital Humanities), 315E (Topic 1).

#### **E 310F. Literature, Film, and Other Arts.**

Survey of preeminent films of the twentieth century alongside a consideration of the literary works that most influenced them. Explores different modes of close reading and skills to critically analyze texts in a variety of literary and media formats. Focus on connections between different modes of modern expression and critical analysis. Three lecture hours a week for one semester. Some sections require an additional discussion hour a week. Prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

#### **E 310S. The Films of Alfred Hitchcock.**

Survey the films of Alfred Hitchcock. Examine the question of film as a visual medium and Hitchcock as a visual artist, with close attention to his techniques of storytelling through moving pictures and the performances of the actors. Three lecture hours a week for one semester. Prerequisite: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

#### **E 314J. Literature across the Curriculum.**

Readings selected to highlight the connections between literary study and other fields of inquiry. Three lecture hours a week for one semester. May not be substituted for English 316L (or 316K), 316M (or 316K), 316N (or 316K), or 316P (or 316K). May be repeated for credit when the topics vary. Prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

**Topic 1: Literature and Film.** English 314J (Topic: Literature and Film) and 314J (Topic 1) may not both be counted.

**Topic 3: Literature and Theatre.** English 314J (Topic: Literature and Theatre) and 314J (Topic 3) may not both be counted.

**Topic 4: Harry Potter's Secret Language.** English 314J (Topic: Harry Potter's Secret Language) and 314J (Topic 4) may not both be counted.

### **E 314L (TCCN: ENGL 2341). Introduction to Literary Studies.**

Emphasis on skills and methods used in upper-division English courses; intensive practice in writing; and an introduction to field-specific research. Three lecture hours a week for one semester. May not be substituted for English 316L (or 316K), 316M (or 316K), 316N (or 316K), or 316P (or 316K). May be repeated for credit when the topics vary. Prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

**Topic 3: Banned Books and Novel Ideas.**

**Topic 4: Texts and Contexts.**

**Topic 5: Reading Poetry.**

**Topic 8: The Pulitzer Prize.** An introduction to literary analysis focusing on works that have been awarded the Pulitzer Prize for fiction, drama, and/or poetry.

**Topic 9: Cult Classics.** An introduction to literary analysis focusing on works that have become cult classics.

**Topic 10: GoodReads.** An introduction to literary analysis, focusing on building a literary community.

### **E 314T. Advanced Placement Credit in English.**

Used to record coursework credit based upon an appropriate Advanced Placement Literature and Composition examination score. The equivalent of three lecture hours a week for one semester. Offered on the pass/fail basis only.

### **E 314V. Introduction to Literature and Culture.**

Readings focus on minority and ethnic American literatures in their cultural contexts with an emphasis on skills and methods. Intensive practice in writing and an introduction to field-specific research. Three lecture hours a week for one semester. May not be substituted for English 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K). May be repeated for credit when the topics vary. Prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

**Topic 1: African American Literature and Culture.** Same as African and African Diaspora Studies 315T. Explores texts, drawn from a variety of genres and periods, that indicate the range of African American experiences and how those experiences are influenced by issues such as class, ethnicity, gender, sexuality, and race. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315T, 317F (Topic 1), English 314V (Topic 1). Additional prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

**Topic 2: Asian American Literature and Culture.** Same as Asian American Studies 314. Explores how authors and artists over the course of the past century have imagined what it means to be Asian American. Covers a diverse range of Asian immigrant histories and the formation of Asian American identities according to ethnicity, gender, sexuality, class, and citizenship.

**Topic 3 (TCCN: ENGL 2351): Mexican American Literature and Culture.** Same as Mexican American Studies 314. Representative Chicano writers and genres, such as poetry, prose fiction, and theatre. Three lecture hours a week for one semester. English 314V (Topic 3) and Mexican American Studies 314 may not both be counted. May not be substituted for English 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K). Additional prerequisite: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

**Topic 4: Gay and Lesbian Literature and Culture.** Same as Women's and Gender Studies 301 (Topic 12: Gay and Lesbian Literature and Culture). American writing by gay, lesbian, bisexual, transgender, or queer authors and/or with gay, lesbian, bisexual, transgender, or queer themes. English 314V (Topic 4) and Women's and Gender Studies 301 (Topic 12) may not both be counted.

**Topic 5: Native American Literature and Culture.** Same as American Studies 315F. Studies Native American literature from different regions and cultures and considers this literary tradition in tribal national and United States national contexts. Only one of the following may be counted: American Studies 315 (Topic: Native American Literature and Culture), 315F, English 314V (Topic 5).

**Topic 6: Women, Gender, Literature, and Culture.** Same as Women's and Gender Studies 301 (Topic 27). An introduction to literary analysis focusing on women's and gender studies. English 314V (Topic 6) and Women's and Gender Studies 301 (Topic 27) may not both be counted.

### **E 316L (TCCN: ENGL 2321, ENGL 2322, ENGL 2323). British Literature.**

Introduction to masterpieces of the British literary tradition, emphasizing historical, generic, and thematic connections. Three lecture hours a week for one semester. Some sections require an additional discussion hour a week. Prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

### **E 316M (TCCN: ENGL 2326, ENGL 2327, ENGL 2328). American Literature.**

Introduction to masterpieces of the American literary tradition, emphasizing historical, generic, and thematic connections. Three lecture hours a week for one semester. Some sections require an additional discussion hour a week. Prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

### **E 316N (TCCN: ENGL 2331, ENGL 2332, ENGL 2333). World Literature.**

Introduction to masterpieces of world literature, emphasizing historical, generic, and thematic connections. Three lecture hours a week for one semester. Some sections require an additional discussion hour a week. Only one of the following may be counted: Comparative Literature 315, English 303D, (603B), 316N, Tutorial Course 303D, (603B). Prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

### **E 316P. Masterworks of Literature.**

Introduction to masterpieces of literature, emphasizing historical, generic, and thematic connections. Three lecture hours a week for one semester. Some sections require an additional hour a week. Prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

### **E 318M. Introduction to the English Language.**

Basic linguistic concepts; phonology, syntax, and vocabulary of English; historical, regional, and social variation; applications of linguistics in educational and social action. Three lecture hours a week for one semester. Prerequisite: One of the following: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

### **E 318Q. Supervised Research.**

Student-initiated research conducted with instructor supervision. Three conference hours a week for one semester. May be taken twice for credit. May be repeated for credit. Prerequisite: Approval of written application by supervising instructor and the undergraduate faculty adviser.

**E 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S.**  
**Topics in English.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## Upper-Division Courses

### **E 320L. Major Writers of the Restoration and Eighteenth Century.**

A study of the principal writers: Dryden, Pope, Swift, Johnson, Boswell, Burns, and others. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 321. Shakespeare.**

A selection from the works of William Shakespeare. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 321K. Introduction to Criticism.**

Introduction to major terms, issues, and approaches in literary criticism, and their application to the reasoned discussion of poetry, fiction, and drama. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 321L. American English.**

Same as Linguistics 321L. An overview of the historical development of English in the Americas. Attention to regional, social, and ethnic differences, and their implications for public education. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 321P. Shakespeare through Performance.**

An intensive study of the plays of William Shakespeare, with emphasis on performance as a means of interpretation and an aid to comprehension. Three lecture hours a week for one semester, with additional laboratory hours as required. Prerequisite: Consent of instructor.

### **E 323C. Women in Captivity.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 323C, 370W (Topic: Women in Captivity), Women's and Gender Studies 345 (Topic: Women in Captivity). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 323D. Topics in Diverse Perspectives.**

Study literature and other forms within cultural and historical contexts, focusing on any one or more of the following: gender, race, ethnicity, culture, language, and/or globalization. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: English 323D, 324, 360L, 360S, 364D, 370W, 376M. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 323E. Writing Slavery.**

Same as African and African Diaspora Studies 330P and Women's and Gender Studies 340 (Topic 31). Explores the controversial rewriting of slavery in a presentist context by contemporary authors. Addresses challenges that archival limitations and revisionist writings about slavery

pose for academic disciplines, literary instruction, and/or pedagogy. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330P, 374F (Topic 6), English 323E, 376M (Topic 3), Women's and Gender Studies 340 (Topic 31). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

### **E 323F. African American Writers in France.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 323F, 376M (Topic: Afr Am Writers in France-Hon), Liberal Arts Honors 350 (Topic: Afr Am Writers in France). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 323G. American Literary Masculinities.**

Same as Women's and Gender Studies 345 (Topic 52). Explores constructions of masculinity in American literature from a generally, but not exclusively, feminist perspective. Subjects include what masculinity has meant at different times in United States history, and how it has varied in meaning and significance according to broad categories of identity such as social class, race, region, and queerness. Three lecture hours a week for one semester. Only one of the following may be counted: English 323G, 370W (Topic 12), Women's and Gender Studies 345 (Topic 52). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

### **E 323L. English as a World Language.**

Same as Linguistics 323L. An account of the spread of English around the world; national, social, and regional varieties. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 323S. The Global Short Story.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 323D (Topic: Global Short Story), 323S, 360L (Topic: Global Short Story). Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 323T. Envisioning Muslims: The Middle Ages and Today.**

Examine representations of Muslims in the dominant cultural media of the European Middle Ages, and in cultural media of the twentieth- and twenty-first centuries. Explore how Europeans envisioned Muslims, and how Muslims envisioned themselves. Three lecture hours a week for one semester. Only one of the following may be counted: English 323D (Topic: Envisn Muslim:Mid Age/Today), 323T, 360S (Topic 3), Middle Eastern Studies 342 (Topic 17). Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 323W. Women's Autobiographical Writing.**

Same as Women's and Gender Studies 345 (Topic 48). Examines the autobiographical impulse in women's writing by exploring the concept of the individualistic self versus the sense of self as a part of community and duty, and the way in which that communal self can both partake of humankind and participate in self-actualization. Three lecture hours a week for one semester. Only one of the following may be counted: English 323W, 370W (Topic 11), Women's and Gender Studies 345 (Topic 48). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**E 324C. The Graphic Novel.**

An analysis of the graphic novel. Representative authors include Lynd Ward, Jaime and Gilbert Hernandez, Art Spiegelman, Alan Moore, Neil Gaiman, Chris Ware, Marjane Satrapi, and Alison Bechdel. Three lecture hours a week for one semester. English 324 (Topic: Themes in the Graphic Novel) and 324C may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 324F. The Faustus Legend in Theatre, Fiction, and Film.**

Three lecture hours a week for one semester. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

**E 324L. Literature, Health, and Medicine.**

Examine literature about illness, healing, health, and health care. Explore the overlapping fields of literature and medicine and the health or medical humanities, with some attention also paid to disability studies. Consider the role that literature and the humanities can play in the education of health professionals. Three lecture hours a week for one semester. English 324 (Topic: Literature and Medicine) and 324L may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 324M. Troubled Literary Marriages.**

Examine how the personal lives of authors may be expressed in their works. Use biographies, memoirs, letters, and the words of the authors, both in their creative and private lives, to explicate some of the major texts of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: English 324 (Topic: Literary Marriages from Hell), 324 (Topic 6), 324M. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 324O. Fiction and Medievalism.**

Through selected works of fiction, literary criticism, poetry, visual arts, and film, explore how the category of 'the medieval' has been constructed, and its imagery activated, in post-medieval settings from the eighteenth century onwards. Three lecture hours a week for one semester. English 324O and 379R (Topic 2) may not both be counted. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

**E 324R. Film Adaptations and Complexity.**

Three lecture hours a week for one semester. English 324R and 379R (Topic 1) may not both be counted. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

**E 325S. Perversity and Self-interest.**

Three lecture hours a week for one semester. English 325S and 379R (Topic: Perversity/Self-Interest) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 326K. The Literature of the Middle Ages in Translation.**

Romances, chronicles, legends, tales, and plays by English, Celtic, and Continental writers. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 326L. Survey of Middle English Language and Literature.**

Language and literature from 1100 to 1500. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 327. The British Novel in the Eighteenth Century.**

Representative novels and novelists from 1700 to 1832, including typical works of Defoe, Richardson, Fielding, Sterne, Austen, and Scott. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 328. The British Novel in the Nineteenth Century.**

Representative works by such writers as Dickens, Thackeray, the Brontës, Eliot, Meredith, and Hardy. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 329R. The Romantic Period.**

The prose and poetry of writers such as Blake, Wordsworth, Coleridge, Byron, Keats, Shelley, and others. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in English.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of English. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**E 335P. Business of Writing.**

Same as Creative Writing 335. Study the book publishing landscape including traditional and non-traditional career paths available to writers and those interested in the publishing industry. Analyze the publishing process, from concept to finished book: the acquisition, editorial, publicity, marketing, and sales stages of a book's life. Three lecture hours a week for one semester. Only one of the following may be counted: Creative Writing 335, English 324 (Topic: Business of Writing), 335P. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

**E 336E. British Literature: Beginnings through the Renaissance.**

A survey of major writers, poetry, and prose. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 337. American Literature: From the Beginnings to 1865.**

A survey of major writers, poetry, and prose. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 337E. British Literature: The Restoration through the Romantic Era.**

A survey of major writers, poetry, and prose. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 338. American Literature: From 1865 to the Present.**

A survey of major writers, poetry, and prose. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 338E. British Literature: The Victorian Era through World War II.**

A survey of major writers, poetry, and prose. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 340. The American Novel before 1920.**

Representative novels by such writers as Brown, Melville, Fern, Hawthorne, Twain, Crane, James, Wharton, and Dreiser. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 340S. Literature and Culture of the 1960s.**

Three lecture hours a week for one semester. English 340S and 379R (Topic 7) may not both be counted. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

**E 341G. Poets and Punks: British Culture Since 1945.**

Examine and research the history of literature, popular music, and youth subcultures in England since 1945, and the development of cultural studies. Explore conventional notions of the hierarchy of high and mass culture, the issue of what avant-garde practice involves, and the forms it might take. Three lecture hours a week for one semester. English 341G and 379R (Topic 10) may not both be counted. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

**E 341I. Irish Literature and Politics in the 20th Century.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 341I, 379R (Topic: Irish Classics: 20th-C:Hon), Liberal Arts Honors 350 (Topic: Irish Classics: 20th-C). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 342F. Life and Literature of the Southwest.**

Examine literature reflecting the social inheritance of the Southwest through verse, fiction, travels, and memoirs. Three lecture hours a week for one semester. English 342 (Topic: Life and Lit of the Southwest) and 342F may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 342M. Life and Literature of the US-Mexico Borderlands.**

Same as Mexican American Studies 345D. Examine the literature of the US-Mexico borderlands experience, with an emphasis on the historical and social conditions that characterize this unique region. Explore this in the context of prose fiction, as well as drama, film, and poetry. Three lecture hours a week for one semester. Only one of the following may be counted: English 342 (Topic 1), 342M, Mexican American Studies 345D, 374 (Topic 2). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 342S. Southern Literature.**

Introduction to and survey of the literature of the United States South. Explores methods of literary and cultural interpretation with focus on critical thinking, reading, and writing skills. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 342T. Life and Literature of Texas.**

Examines how Texas authors describe and explore the diversity and complexity of a state often seen in terms of myth and caricature. Works include literature from across the state by writers such as Katherine Anne Porter, Larry McMurtry, Cormac McCarthy, among others. Three lecture hours a week for one semester. Only one of the following may

be counted: English 342 (Topic: Life and Literature of Texas), 342 (Topic 2), 342T. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343C. Caribbean Literature.**

Same as African and African Diaspora Studies 330Q and Comparative Literature 323 (Topic 6). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330Q, 374F (Topic 7), Comparative Literature 323 (Topic 6), English 343C, 360L (Topic 2). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343D. Disability, Race, and Sexuality in Literature and Culture.**

Same as Mexican American Studies 337G and Women's and Gender Studies 335 (Topic 17). Three lecture hours a week for one semester. Only one of the following may be counted: English 343D, 376M (Topic: Deviant Bodies:Disabl/Race/Sex), Mexican American Studies 337G, 374 (Topic: Deviant Bodies:Disabl/Race/Sex), Women's and Gender Studies 335 (Topic: Deviant Bodies:Disabl/Race/Sex), 335 (Topic 17). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**E 343E. Latinx Short Story.**

Same as Mexican American Studies 345E and Women's and Gender Studies 340 (Topic 90). Three lecture hours a week for one semester. Only one of the following may be counted: English 343E, 376M (Topic: Latinx Short Story), Mexican American Studies 345E, 374 (Topic: Latinx Short Story), Women's and Gender Studies 340 (Topic: Latinx Short Story), 340 (Topic 90). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for other majors, upper-division standing.

**E 343F. Black Film at the Oscars.**

Same as African and African Diaspora Studies 3300. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 3300, 374D (Topic: Black Film at the Oscars), English 343F, 376M (Topic: Black Film at the Oscars). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**E 343G. Global Environmental Literature and Film.**

Three lecture hours a week for one semester. Only one of the following may be counted: Bridging Disciplines Program 329 (Topic: Global Environment Lit & Film), English 343G, 360S (Topic: Global Environment Lit & Film). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343I. Immigration Literature.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 343I, 376M (Topic: Immigration Literature-Honors), 376M (Topic 10), Liberal Arts Honors 350 (Topic: Immigration Literature), 350 (Topic 31). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343J. Literature and Social Justice.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 343J, 360L (Topic 1), Liberal Arts Honors 350 (Topic: Literature and Social Justice). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343L. Modernism and Literature.**

Strands of thought and literature that form the network of modernist writing. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343M. Black Queer Literature and Film.**

Same as African and African Diaspora Studies 330W and Women's and Gender Studies 340 (Topic 47). Analyzes written works, films, and videos by and about lesbians, bisexual, transgender, and gay black people, with an emphasis on understanding the historical and theoretical construction of sexual and gender identities and sexual/cultural practices in black communities. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330W, 372E (Topic 13), English 343M, 376M (Topic 8), Women's and Gender Studies 340 (Topic 47). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**E 343N. The Nobel Prize.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 343N, 360L (Topic: The Nobel Prize-Honors), Liberal Arts Honors 350 (Topic: The Nobel Prize). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343P. Postmodern Literature.**

Survey of postmodern writing. As a period, the postmodern extends roughly from the era after World War II, and follows the modern, a term often applied to literature produced since the start of World War I. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343Q. Lesbian, Gay, Bisexual, Transgender, and Queer Literature and Culture.**

Same as Women's and Gender Studies 345E. Three lecture hours a week for one semester. Only one of the following may be counted: English 343Q, 370W (Topic 8), Women's and Gender Studies 345 (Topic 30), 345E. Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**E 343R. Contemporary Native American Literature.**

Three lecture hours a week for one semester. English 343R and 376M (Topic 6) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343S. Sustainability and Representation.**

Three lecture hours a week for one semester. English 343S and 360S (Topic: Sustainability & Representation) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343T. Contemporary Asian American Novels.**

Same as Asian American Studies 320C. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic 3), 320C, English 343T, 376M (Topic 5). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343U. Literature, Health, and Disease.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 343U, 360S (Topic: Lit/Health/Disease: Honors), Liberal Arts Honors 350 (Topic: Lit, Health, and Disease). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343V. Literature of AIDS in Africa.**

Examine the emerging cultural representations of AIDS in sub-Saharan Africa through journalistic, social science, and historical accounts.

Explore the difficulty of representing the various aspects of a public-health crisis. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic 1), English 343V, 360S (Topic 2). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 343W. Contemporary African American Women's Fiction.**

Same as African and African Diaspora Studies 330M and Women's and Gender Studies 340 (Topic 29). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330M, 372E (Topic 15), English 343W, 376M (Topic 7), Women's and Gender Studies 340 (Topic 29). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 344C. Young Adult: Fiction and Film.**

See the works as embedded in specific historical, artistic, and cultural contexts that must be engaged in order to understand their expressed values and concerns about youth culture, specifically and comparatively. Discussions and analyses focus on aesthetics, form, and genre, framed by critical approaches and reading strategies rooted in film, genre, feminist, cultural, ethnic, and gender studies. Three lecture hours a week for one semester. Only one of the following may be counted: English 344C, 344L (Topic: Young Adult: Fiction and Film), 344L (Topic 7), Mexican American Studies 374 (Topic: Young Adult: Fiction and Film). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 344D. Australian Literature and Film.**

Three lecture hours a week for one semester. English 344D and 344L (Topic 4) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 344E. New York School Poets and Artists.**

Three lecture hours a week for one semester. English 344E and 379R (Topic: New York Sch Poets and Artists) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 344F. Film Theory.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 344F, 344L (Topic: Film Theory-Honors), Liberal Arts Honors 350 (Topic: Film Theory). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 344G. Gossip and Poetry.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 344G, 379R (Topic: Gossip and 20th-Century Poetry), Women's and Gender Studies 335 (Topic: Gossip and 20th-Century Poetry). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 344I. Twenty-First Century Poetry.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 344I, 379R (Topic: Twenty-First-Century Poetry), 379R (Topic 14). Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

**E 344J. Binge-Watching: A Cultural History.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 344J, 379R (Topic: Binge-Watching: Cultural Hist), 379R (Topic 12). Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 344M. Major Film Movements.**

Three lecture hours a week for one semester English 344L (Topic: Major Film Movements) and 344M may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 344N. Film Noir.**

Three lecture hours a week for one semester. English 344N and 379R (Topic: Film Noir: Texts and Film) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 344O. Popular Music and Youth Subcultures.**

Three lecture hours a week for one semester. English 344O and 379R (Topic 6) may not both be counted. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 344P. Hollywood Babylon.**

Explore Hollywood's symbolic role in American culture, and the genre of the Hollywood story, as seen in an array of representations of Hollywood (primarily in films and novels, but also in essays, poems, paintings, photographs, songs, fan magazines, and notorious counter-historical accounts such as Kenneth Anger's *Hollywood Babylon*). Three lecture hours a week for one semester. Only one of the following may be counted: English 344L (Topic: Hollywood Babylon), 344L (Topic: Hollywood Babylon-Hon), 344P, Liberal Arts Honors 350 (Topic: Hollywood Babylon). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 344R. Childhood and Adolescence in Literature and Film.**

Examine historical to contemporary representations of childhood and adolescence in literature, film, culture, and society. Three lecture hours a week for one semester. English 344L (Topic 5) and 344R may not both be counted. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 344S. Film Auteurs.**

Three lecture hours a week for one semester. English 344L (Topic: Film Auteurs) and 344S may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 344T. The Animated Film as Text.**

Three lecture hours a week for one semester. English 344L (Topic: The Animated Film as Text) and 344T may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 344U. Writer-Directors: European Literary Cinema.**

Explore a historical-to-contemporary survey of European literary and cinematic movements, featuring pre- and post-auteur writer-directors. Three lecture hours a week for one semester. English 344L (Topic 6) and 344U may not both be counted. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 344V. Music Videos: History and Theory.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 344V, 379R (Topic: Music Videos: Hist/Theory), 379R (Topic 13). Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 344W. Citizen Kane and Company: The Essential Films.**

Examine a select body of films, ranging from the early sound era to the present, that changed the vernacular of filmmaking, opened up new generic or stylistic directions, or epitomized the work of a widely

influential director. Explore film history and theory, an introduction to the study of film genres and movements, the major tactics and techniques of film analysis, and the rigorous study of filmic texts. Three lecture hours a week for one semester English 344L (Topic: Citizen Kane and Company) and 344W may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 345F. Food Writing, Culture, and Environment.**

Trace the origins of food writing and explore the ways the genre engages with contemporary issues of cultural definition, political action, and global sustainability while activating various definitions of taste and judgment ascribed to aesthetic and philosophical pursuits. Three lecture hours a week for one semester. English 345F and 360S (Topic 6) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 345T. The Theater in Austin.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 345T, 350V (Topic: Theater in Austin: Honors), Liberal Arts Honors 350 (Topic: Theater in Austin). Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 348. The Short Story.**

Extensive readings and analyses of stories by major modern writers such as Faulkner, Hemingway, Joyce, Chekhov, and Kafka, as well as contemporary writers. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 348C. Julia Alvarez and Sandra Cisneros.**

Same as Mexican American Studies 345C and Women's and Gender Studies 340 (Topic 86). Three lecture hours a week for one semester. Only one of the following may be counted: English 348C, 349S (Topic: Alvarez and Cisneros), Mexican American Studies 345C, 374 (Topic: Alvarez and Cisneros), Women's and Gender Studies 340 (Topic: Alvarez and Cisneros), 340 (Topic 86). Prerequisite: Upper-division standing.

### **E 348J. J. M. Coetzee.**

Three lecture hours a week for one semester. English 348J and 349S (Topic: J M Coetzee) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 348P. Plath and Sexton.**

Explore the works of Sylvia Plath and Anne Sexton. Three lecture hours a week for one semester. English 348S and 349S (Topic: Plath and Sexton) may not both be counted. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 348S. Zadie Smith.**

Three lecture hours a week for one semester. English 348S and 349S (Topic: Zadie Smith-GBR) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 348T. J.R.R. Tolkien.**

Three lecture hours a week for one semester. English 348T and 349S (Topic: JRR Tolkien) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 348U. Bruce Springsteen.**

Three lecture hours a week for one semester. English 348U and 349S (Topic: Bruce Springsteen) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 349D. Danticat and Diaz.**

Same as African and African Diaspora Studies 330S and Comparative Literature 323 (Topic 60). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330S, 372E (Topic: Danticat and Diaz), Comparative Literature 323 (Topic: Danticat and Diaz), 323 (Topic 60), English 349D, 349S (Topic: Danticat and Diaz). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

### **E 349S. Topics on Major Authors.**

Intensive study of the works of a single major author or two major authors. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: English 322, 349S, 370W, 376M. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**Topic 1: Jane Austen.**

**Topic 2: The Brontës.** English 349S (Topic 2) and 370W (Topic: Brontës: Self and Society) may not both be counted.

**Topic 3: James and Wharton.**

**Topic 4: James Joyce.**

**Topic 5: Toni Morrison.** Same as African and African Diaspora Studies 330J and Women's and Gender Studies 345 (Topic 46). An examination of select novels by the Nobel Laureate and Pulitzer Prize-winning novelist focuses on the positional uniqueness that womanism shares with a predominant feminism, which surfaces in historicized familial relationships. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330J, 372E (Topic 1), English 349S (Topic 5), Women's and Gender Studies 345 (Topic 46). Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**Topic 6: Walt Whitman.**

**Topic 7: Oscar Wilde.**

**Topic 8: Virginia Woolf.** Same as Women's and Gender Studies 345 (Topic 40). Examines critical and fictional works of Virginia Woolf and the author's continuing legacy and influence. Explores the value and limitations of high modernism; English literary heritage and tradition; feminism; creative and critical definitions of gender and sexuality; intellectual activism, including Woolf's critiques of patriarchy, war, and fascism; and Woolf and imperialism and colonialism. English 349S (Topic 8) and Women's and Gender Studies 345 (Topic 40) may not both be counted. Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**Topic 9: William Faulkner.**

**Topic 10: Graham Greene.** English 349S (Topic: Graham Greene) and 349S (Topic 10) may not both be counted.

**Topic 11: Nathaniel Hawthorne.** English 349S (Topic: Nathaniel Hawthorne) and 349S (Topic 11) may not both be counted.

**Topic 12: Alice Munro.** English 349S (Topic: Alice Munro) and 349S (Topic 12) may not both be counted.

**Topic 13: Charles Dickens.** English 349S (Topic: Charles Dickens) and 349S (Topic 13) may not both be counted.

**Topic 14: David Foster Wallace.** Only one of the following may be counted: English 349S (Topic: David Foster Wallace), 349S (Topic 14), Liberal Arts Honors 350 (Topic: David Foster Wallace), 350 (Topic 29).

**Topic 15: Edgar Allan Poe.** English 349S (Topic: Edgar Allan Poe) and 349S (Topic 15) may not both be counted.

**Topic 16: Ernest Hemingway.** English 349S (Topic: Ernest Hemingway) and 349S (Topic 16) may not both be counted.

**Topic 17: George Eliot.** English 349S (Topic: George Eliot) and 349S (Topic 17) may not both be counted.

**Topic 18: Chaucer and Shakespeare.** English 349S (Topic: Chaucer and Shakespeare) and 349S (Topic 18) may not both be counted.

**Topic 19: Shakespeare and Marlowe.**

### **E 349W. Bob Dylan.**

Three lecture hours a week for one semester. English 349S (Topic: Bob Dylan) and 349W may not both be counted. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 350E. Topics in Language and Literature: Beginnings to 1630.**

Three lecture hours a week for one semester. English 350E and 364D may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**Topic 3: Literature and the Visual Arts.** Examines the relationship between words and images across a broad historical sweep. Only one of the following may be counted: English 320M (Topic: Literature and the Visual Arts), 350E (Topic: Literature and the Visual Arts), 350E (Topic 3).

### **E 350M. Topics in Language and Literature: 1630 to 1830.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**Topic 1: Eighteenth-Century Women Writers.** Same as Women's and Gender Studies 345 (Topic 7). Women writers in the early eighteenth-century canon. Argues for a historical perspective that demonstrates the centrality of early eighteenth-century women writers to the western canon. English 350M (Topic 1) and Women's and Gender Studies 345 (Topic 7) may not both be counted. Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

### **E 350R. Topics in Language and Literature: 1830 to 1940.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**Topic 1: Law, Society, and the Novel in Nineteenth-Century Britain.**

**Topic 3: Literature, Cultural Memory, and the American Civil War.**

Examines the American Civil War not in terms of its military or political history but in relation to the ways literary and cultural texts have remembered and rewritten it. Only one of the following may be counted: English 350R (Topic 3), Liberal Arts Honors 350 (Topic: Literature, Cultural Memory, and the American Civil War), 350 (Topic 32).

**Topic 4: The Paperback.** Introduction to basic bibliography terminology and book history by tracking the evolution of the modern paperback, from 1850 to now, by means of author case studies. Only one of the following may be counted: English 350R (Topic: The Paperback), 350R (Topic 4), Liberal Arts Honors 350 (Topic: The Paperback).

**E 350V. Topics in Language and Literature: 1940-Present.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 351D. Angels and Devils in Victorian Fiction.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350R (Topic: Angels/Devils Victorn Fict), 350R (Topic: Angels/Devils Victorn Fict-GBR), 351D. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 351F. Literature and Business in Nineteenth-Century Britain.**

Three lecture hours a week for one semester. English 350R (Topic: Lit and Bus in 19th-C Brit) and 351F may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 351L. London: One Hundred Years Ago.**

Three lecture hours a week for one semester. English 351L and 379R (Topic 9) may not both be counted. Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

**E 351O. Literature of Oxford.**

Three lecture hours a week for one semester. English 350R (Topic: Literature of Oxford-GBR) and 351O may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 351P. Paradise Lost: Reception History.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350M (Topic: Paradise Lost/Its Receptrn), 351P, Liberal Arts Honors 350 (Topic: Paradise Lost/Its Reception), 350 (Topic 30). Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

**E 352C. Classical Backgrounds of Literature.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350E (Topic: Epics and Influences), 350E (Topic: Epics and Influences-Honors), 350E (Topic 1), 352C, Liberal Arts Honors 350 (Topic: Epics and Influences). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 352I. Interwar United States Literature.**

Three lecture hours a week for one semester. English 350R (Topic: Interwar US Literature) and 352I may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 352K. Arthurian Literature and Film.**

A survey of the major Arthurian narratives from their origins in the Middle Ages to the present in various textual (prose, poetry, drama) and visual (illustration, film, graphic) forms. Three lecture hours a week for one semester. English 350E (Topic: Arthurian Literature and Film) and 352K may not both be counted. Prerequisite: Nine semester hours of coursework in English or Rhetoric and Writing.

**E 352V. Viking Literature.**

A survey of early Norse and Anglo-Scandinavian prose and verse—saga; chronicle, heroic epic, and mythological (eddic and skaldic) verse—with attention to the image of the viking in contemporary popular culture. Three lecture hours a week for one semester. English 350E (Topic: Viking Literature) and 352V may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 353R. Literature of the Harlem Renaissance.**

Same as African and African Diaspora Studies 330D. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330D, 374F (Topic: Harlem Renaissance), English 353R, 376M (Topic: Harlem Renaissance). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**E 353W. Women in the Nineteenth-Century British Novel.**

Three lecture hours a week for one semester. English 353W and 379R (Topic: Women in 19th-Cen Brit Novel) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 354C. Crime Fiction.**

Three lecture hours a week for one semester. English 354C and 379R (Topic: Crime Fiction) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 354D. Post-Darwin Novel.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350R (Topic: Post-Darwin Novel-Honors), 354D, Liberal Arts Honors 350 (Topic: Post-Darwin Novel). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 354M. From Middlemarch to Modernism.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350R (Topic: Middlemarch to Modrnsm: Hon), 354M, Liberal Arts Honors 350 (Topic: Middlemarch to Modernsm). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 355V. Vampires and Dandies.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350R (Topic: Vampires and Dandies-Honors), 355V, Liberal Arts Honors 350 (Topic: Vampires and Dandies). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 356. The European Novel.**

Same as European Studies 347 (Topic 7: The European Novel). Selected masterpieces of continental fiction in English translation; representative novelists of the nineteenth and twentieth centuries. Three lecture hours a week for one semester. English 356 and European Studies 347 (Topic 7) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 358E. Eliot and Hardy.**

Explore the works of George Eliot and Thomas Hardy. Three lecture hours a week for one semester. English 349S (Topic: Eliot and Hardy) and 358E may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 358F. Faulkner and O'Connor.**

Explore the works of William Faulkner and Flannery O'Connor. Three lecture hours a week for one semester. Only one of the following may be counted: English 349S (Topic: Faulkner and O'Connor), 349S (Topic: Faulkner and O'Connor-Honors), 358F, Liberal Arts Honors 350 (Topic: Faulkner and O'Connor). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 358J. The Bible as Literature.**

Same as Religious Studies 355. In-depth literary study of the Bible, with emphasis on the formal features of narrative, hymn, prophecy, apocalypse, gospel, and epistle. Three lecture hours a week for one

semester. English 358J and Religious Studies 355 may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 358K. The Bible in British and American Literature.**

Same as Religious Studies 355K. The reading of biblical masterpieces as literature; consideration of different versions of the Bible and their influence on British and American literature. Three lecture hours a week for one semester. English 358K and Religious Studies 355K may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 358P. Robert Frost.**

Three lecture hours a week for one semester. English 349S (Topic: Robert Frost) and 358P may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 358Q. Supervised Research.**

Student-initiated research conducted with instructor supervision. Three conference hours a week for one semester. May be taken twice for credit. May be repeated for credit. Prerequisite: Completion of at least sixty semester hours of coursework, including at least six semester hours of upper-division coursework in English or rhetoric and writing; a University grade point average of at least 3.00; and approval of written application by supervising instructor and the undergraduate faculty adviser.

### **E 358R. Research Apprenticeship.**

Restricted to students in the English Honors Program. Supervised research on a faculty-initiated project. Individual instruction. Prerequisite: Consent of instructor.

### **E 359. British Drama from 1660 to 1900.**

Representative drama texts from the Restoration to the beginnings of modern theatre, including Behn, Sheridan, Wilde, and Shaw. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 360C. Postcolonial Literature.**

Examine the struggles of the migrant and exile with questions of identity, belonging, home, citizenship, and culture. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 360K. English Grammar.**

The study of traditional and transformational grammar. Attention to social differences in language relevant to the teaching of English. Three lecture hours a week for one semester. English 360K and Linguistics 360K may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 360R. Literary Studies for High School Teachers of English.**

Intended for students seeking a secondary school teaching certificate. The principles and practices of teaching literature in secondary schools. Three lecture hours a week for one semester. English 360R and Rhetoric and Writing 379C (Topic: Literary Studies for High School Teachers of English) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 361K. British Drama to 1642.**

A survey of early British drama, usually including works by Marlowe, Kyd, Shakespeare, Jonson, Webster, and Middleton. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 362L. The Contemporary British Novel.**

Representative novels, including those of Joyce, Lawrence, and Woolf. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 363. Milton.**

All the poetry of Milton, with particular attention to *Comus*, *Samson Agonistes*, and *Paradise Lost*. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 363K. Classic to Romantic.**

The theory and practice of Classicism in literature and other arts; the rise of the Romantics in the eighteenth century. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 363S. Early Black Atlantic.**

Three lecture hours a week for one semester. English 363S and 376M (Topic: Early Black Atlantic) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 364E. African American Language.**

Introduction to the history and contemporary form of African American Language (AAL). Through readings, examine the linguistic description of essential features, the use of AAL in the creation of culturally and historically influential texts, and AAL as a subject of public discussion. Three lecture hours a week for one semester. English 364D (Topic: African American English) and 364E may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 364M. History of the English Language.**

Same as Linguistics 364M. Development of sounds, forms, and vocabulary of the English language from its origins to the present. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 364P. Old English.**

An introduction to Old English with sufficient grammar for a reading knowledge of Old English texts. A course in language, not in linguistics. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 364T. The English Language and Its Social Context.**

English language history, theory, and research for students of literature and rhetoric. May include such topics as language diversity and variation, linguistic attitudes, language variety and education, and language and public policy. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 364V. Sailors, Explorers, and the British Novel.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350M (Topic: Sailors/Explrs/Brit Nov:HON), 364V, Liberal Arts Honors 350 (Topic: Sailors/Explrs/Brit Nov). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 366D. Dante.**

Same as Core Texts and Ideas 344D, European Studies 347 (Topic 23), and Italian Civilization 348. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 344D, 345 (Topic: Dante), English 322 (Topic 23), 366D, European Studies 347

(Topic: Dante), 347 (Topic 23), Italian Civilization 348, 349 (Topic 2).  
Prerequisite: Upper-division standing.

### **E 367C. Conference Course in Literature and Language.**

For students who wish to work under supervision on specific projects in literature or language. Three conference hours a week for one semester. May be taken twice for credit. May be repeated for credit. Prerequisite: Completion of at least sixty semester hours of coursework, including at least six semester hours of upper-division coursework in English or rhetoric and writing; a University grade point average of at least 3.00; and approval of written application by supervising instructor and the undergraduate faculty adviser.

### **E 367E. English Internship.**

Research and staff experience working in an appropriate agency or private business. At least twelve hours of fieldwork a week for one semester. May not be counted toward the English major or minor. Offered on the pass/fail basis only. Prerequisite: Completion of at least sixty semester hours of coursework, including at least six semester hours of upper-division coursework in English or rhetoric and writing; a University grade point average of at least 3.00; and approval of written application by the undergraduate faculty adviser.

### **E 368H. Honors Tutorial Course I.**

Research into and development of a thesis topic and proposal. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: English 368H and 369H; or 679H. Prerequisite: Enrollment in or completion of at least one honors section of an English course, admission to the English Honors Program, and consent of the honors adviser.

### **E 368S. Scott and Wordsworth.**

Explore the works of Walter Scott and William Wordsworth. Three lecture hours a week for one semester. Only one of the following may be counted: English 349S (Topic: Scott and Wordsworth-Honors), 368S, Liberal Arts Honors 350 (Topic: Scott and Wordsworth). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 369. Twentieth-Century Drama.**

Ibsen and other major dramatists; tradition and innovation in the substance and form of selected modern plays. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 369H. Honors Tutorial Course II.**

Writing and defense of an Honors thesis. Individual instruction. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: English 368H and 369H; or 679H. Prerequisite: English 368H with a grade of at least B+.

### **E 370. Victorian Prose: Essays and Ideas.**

The prose writer as artist and sage in the cultural, political, religious, and scientific controversies that influence the modern tradition. Representative writers: Carlyle, Mill, Newman, Arnold, Darwin. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 470H. Honors Tutorial Course for Teachers.**

Research into and development of a thesis topic and proposal followed by the writing and defense of a thesis. The equivalent of four lecture hours a week for one semester. Prerequisite: Credit or registration for a minimum of one honors section of an English course, admission to the English Honors Program, admission to UTeach-Liberal Arts, and consent of the honors adviser.

### **E 371C. Early Celebrity Culture.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350M (Topic: Early Celebrity Culture-Honors), 371C, Liberal Arts Honors 350 (Topic: Early Celebrity Culture). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 371K. Modern and Contemporary Poetry.**

Poets that may be studied include Eliot, Auden, Stevens, Thomas, Bishop, Rich, and Merwin. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 371S. Shakespearean Afterlives.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350E (Topic: Shakespearean Afterlives:Hon), 371S, Liberal Arts Honors 350 (Topic: Shakespearean Afterlives). Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 371T. Love and Betrayal in Troy.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350E (Topic: Love/Betrayal in Troy: Hon), 371T, Liberal Arts Honors 350 (Topic: Love/Betrayal in Troy). Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 372L. The American Renaissance.**

Selected writers of the pre-Civil War Romantic movement, including Emerson, Douglass, Fuller, Hawthorne, Melville, Thoreau, Whitman, and others. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 372M. American Realism.**

Selected writers of the post-Civil War realistic movement: Howells, Twain, James, Jewett, Freeman, Crane, and others. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 373M. Early Globalisms, 500-1500 CE.**

Examine, through global literature, the interconnected worlds, humans, activities, and cultures in the approximate time frame of a thousand years to discover what they reveal of early globalisms. Three lecture hours a week for one semester. English 350E (Topic: Imagining World, 500-1500 CE) and 373M may not both be counted Prerequisite: Upper-division standing and one of the following: Comparative Literature 315, English 303D (or 603B), 316L, 316M, 316N, 316P, or Tutorial Course 303D (or 603B).

### **E 374G. Beowulf.**

An extended reading of the work in its cultural and literary context. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **E 374K. Elizabethan Poetry and Prose.**

Renaissance thought and culture as revealed in the lyric and narrative poetry and in the prose masterpieces. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 374L. The Earlier Seventeenth Century: Donne, Jonson, and Their Contemporaries.**

Poetry and prose, 1600 to 1660: the metaphysical and other leading traditions in poetry; the early poems of Milton; the essay, the character, and other prose forms. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 375C. Representations of Only Children in Literature.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350E (Topic: Only Child: Lit/Cul/Env:Hon), 375C, Liberal Arts Honors 350 (Topic: Only Child: Lit/Cul/Env). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 375D. Narratives of Discovery and Conquest.**

Three lecture hours a week for one semester. English 375D and 379R (Topic: Renaissance Travel Narratives) may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 375J. Drama of Jamestown.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350E (Topic: Drama of Jamestown:Hon), 375J, Liberal Arts Honors 350 (Topic: Drama of Jamestown). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 375K. Satire.**

Theory of satire, with readings in the works of such representative figures as Chaucer, Dryden, Pope, Byron, Mark Twain, Will Rogers, Dorothy Parker, James Thurber, and Ishmael Reed. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 375L. Victorian Literature.**

Poetry and prose, 1832 to 1901; parallel reading in the novel and drama, and attention to the social and intellectual background of the period. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 375R. The Image of the Cannibal in the Renaissance.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350E (Topic: Cannibal Renaissance-Honors), 375R, Liberal Arts Honors 350 (Topic: Cannibal Renaissance), 352I. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 376. Chaucer.**

Introduction to Chaucer's narrative and poetic art, as shown in a selection from the dream poems, Troilus and Criseyde, and the Canterbury Tales. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 376F. Gender, Class, and Ethnicity in American Literature and Film.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 344L (Topic: Gend/Class/Ethn Amer Lit/Film), 344L (Topic 8), 376F, Mexican American Studies 374 (Topic: Gender, Class, and Ethnicity in American Literature and Film), Social Work 360K (Topic: Gend/Class/Ethn Amer Lit/Film), Women's and Gender Studies 340 (Topic: Gend/Class/Ethn Amer Lit/Film). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 376R. African American Literature through the Harlem Renaissance.**

Same as African and African Diaspora Studies 330K. A survey of African American writing, including autobiography, poetry, fiction, and drama. Authors may include Douglass, Jacobs, Frances E. W. Harper, Chestnutt, Du Bois, Hurston, and Hughes. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330K, 372E (Topic 4), English 376R. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 376S. African American Literature since the Harlem Renaissance.**

Same as African and African Diaspora Studies 330L. The development of African American poetry, drama, fiction, and nonfiction since the Harlem Renaissance. Authors may include Wright, Ellison, Baldwin, Malcolm X, Baraka, Morrison, Shange, and Charles Johnson. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330L, 372E (Topic 5), English 376S. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 377K. The American Novel after 1920.**

Representative works by such writers as Faulkner, Hemingway, Fitzgerald, Larsen, Hurston, Morrison, Bellow, Erdrich, and Tan. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 377M. The American Novel after 1960.**

Examines American novels and short stories from the 1960s to the present. Considers the aesthetic and narrative innovations of the period in light of social, historical, technological, and political developments. Representative authors include Pynchon, Roth, Morrison, DeLillo, Silko, Robinson, Egan, and Diaz. Three lecture hours a week for one semester. English 324 (Topic: American Novels after 1960) and English 377M may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 378E. Edmund Spenser.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 349S (Topic: Edmund Spenser), 378E, Liberal Arts Honors 350 (Topic: Edmund Spenser). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 678S. Shakespeare at Winedale.**

Study and readings of selected works and criticism, culminating in public performance of the plays. For English 678SB, students are required to be in residence at Winedale near Round Top, Texas. For 678SA, the equivalent of five lecture hours a week for one semester; for 678SB, fifteen to eighteen hours of work a day, including weekends. Offered in the summer session only. Prerequisite: For 678SA, consent of instructor; for 678SB, English 678SA and consent of instructor.

**E 379. American Literature and Thought: 1600-1840.**

Early American literature as an embodiment of American thought and experience. Such topics as European ideas in the New World; the political ideas of Hamilton, Jefferson, and Jackson; nationalism; industrialism. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**E 379D. Digital Research Lab.**

Participate in original faculty research in the Digital Humanities in a project-based, hands-on setting. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division

standing, or nine semester hours of coursework in English or rhetoric and writing.

#### **E 379K. American Literature and Thought: 1840-1920.**

Such topics as transcendentalism, manifest destiny, Utopian thought, and the impact of the theory of organic evolution. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

#### **E 379L. Contemporary Drama.**

Major playwrights since 1950, such as Williams, Shepard, Beckett, Stoppard, Churchill, Fugard, and Pinter. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

#### **E 379P. Drama in Performance.**

Intensive study of drama through active performance as a means of interpretation and an aid to comprehension. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **Graduate Courses**

#### **E 380E. Practicum in Editing.**

A practicum for editing a literary journal. Three lecture hours a week for one semester. May be repeated for credit when the topics or instructors vary. Prerequisite: Graduate standing, admission to the creative writing concentration in English, and consent of the English graduate adviser.

#### **E 380F. Literature for Writers.**

Readings in fiction, poetry, drama, literary criticism, biography, and autobiography from the point of view of a creative writer rather than that of a scholar. Three lecture hours a week for one semester. May be repeated for credit when the instructors vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 382J. Studies in Linguistic Analysis.**

Lectures, textual analysis, outside readings. Three lecture hours a week for one semester. May count as linguistics. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 382L. Studies in Linguistics and Literature.**

Intensive study of specialized subjects. Three lecture hours a week for one semester. May count as linguistics. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 383L. The Teaching of English Composition and Literature.**

A study of the major components of the English program in secondary school or college. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 384K. Methods of Literary Research.**

Issues addressed include methods of literary and cultural interpretation, archival research, academic publishing, and professional development. Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**Topic 2: Disciplinary Inquiries.** English 384K (Topic: Approaches to Disciplinary Inquiries) and 384K (Topic 2) may not both be counted.

#### **E 384L. Scholarly Publication.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 384K (Topic: Scholarly Publication), 384K

(Topic 3), 384L. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 384M. Professional Outcomes.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 384K (Topic: Disciplinary Outcomes), 384K (Topic 4), 384M. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 385N. Creative Writing: Workshop in Fiction.**

Three lecture hours a week for one semester. May be repeated for credit when the instructors vary. Prerequisite: Graduate standing and consent of instructor and the English graduate adviser.

#### **E 385W. Creative Writing: Workshop in Fiction and Poetry.**

Intended for graduate students who are not in a master of fine arts program. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 386L. Creative Writing: Workshop in Poetry.**

Three lecture hours a week for one semester. May be repeated for credit when the instructors vary. Prerequisite: Graduate standing and consent of instructor and the English graduate adviser.

#### **E 387M. Studies in Rhetoric.**

Advanced study of topics in rhetorical theory and in ancillary disciplines. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 387N. Methods of Research in Rhetoric and Composition.**

A study of the theory, practice, and history of research in rhetoric and composition. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 387P. Productions in Rhetoric.**

Applications of rhetoric to professional writing. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 387R. Rhetorical History.**

Topics include classical rhetoric, medieval and Renaissance rhetoric, eighteenth- and nineteenth-century rhetoric, and twentieth-century rhetoric. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 388M. Studies in English and Computers.**

Seminar on research in English literature, language, and rhetoric. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

#### **E 389M. Studies in British and American Literature.**

Selected British and American writers and issues. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**E 389P. Studies in Women, Gender, and Literature.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**E 390M. Studies in European Literature.**

A study of the impact of European writers on British or American literature. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**E 391L, 691L. Conference Course on Special Topics.**

For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**E 392M. Studies in English Literature.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**E 393M. Studies in Criticism, English and American.**

Historical and methodological approaches to literary criticism. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**E 395M. Studies in American Literature.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**E 395N. Studies in the History of Language.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**Topic 1: Old English.** English 364P and 395N (Topic 1) may not both be counted.

**Topic 2: Middle English.**

**Topic 3: Renaissance English.**

**E 396L. Studies in the English Language.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**Topic 1: Prosody.**

**E 397M. Studies in the Literatures and Cultures of the English-Speaking World.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**E 397N. Studies in Ethnic and Third-World Literatures.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the English graduate adviser.

**E 698. Thesis.**

Research and writing of a thesis under the supervision of the chair of the supervising committee and subject to the approval of the committee and the graduate dean. The equivalent of three lecture hours a week

for two semesters. English 698A may not be repeated for credit. The student must register for 698B the semester he or she intends to graduate. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in creative writing; for 698B, English 698A.

**E 398D. Digital Studies Practicum.**

Restricted to students pursuing the graduate portfolio in digital studies. Practical work on a faculty-led digital studies research project, planned and carried out in consultation with the supervising instructor. The equivalent of three lecture hours and at least five hours of fieldwork a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the Digital Studies portfolio director.

**E 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in English and consent of the graduate adviser.

**E 398T. Supervised Teaching in English.**

Three lecture hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, consent of the English graduate adviser, and appointment as a teaching assistant or assistant instructor in a lower-division English course in literature or writing.

**E 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

**Professional Courses****Ensemble Courses****Ensemble: ENS****Lower-Division Courses****ENS 101L. Longhorn Singers.**

Three laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 101S. University Chorus: Sopranos and Altos.**

Open to any University student who can qualify by audition. Three laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Qualify by audition.

**ENS 101T. University Chorus: Tenors and Basses.**

Open to any University student who can qualify by audition. Three laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Qualify by audition.

**ENS 101U. University Chorus.**

Three laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 102S. Symphony Orchestra.**

Six laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 102U. University Orchestra.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 103C. Symphony Band.**

Six laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 103P. Butler Opera Center Ensemble.**

Open to any University student who can qualify by audition. Instruction and performance in operatic acting, vocal coaching, and stage direction. Four laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit.

**ENS 103S. Wind Symphony.**

Six laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 103W. Wind Ensemble.**

Six laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 105. Sight-Reading.**

Designed to develop and improve sight-reading skills in piano performance. Three laboratory hours a week for one semester. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 105C. Jazz Combos.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 105E. Jazz Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 105M. Alternate Improvisation Music Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 106C. Conjunto Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 106E. Early Music Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 106F. African American Vocal Ensemble.**

Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 106J. Javanese Gamelan Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 106K. Hispanic Caribbean Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 106L. Mariachi Laboratory Ensemble.**

Prepare for mariachi ensemble. Open to any University student who can qualify by audition. Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Qualify by audition.

**ENS 106M. Mariachi Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 106N. North Indian Music Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 106T. Middle Eastern Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 106U. Accompanying: Instrumental.**

Designed for pianists to improve ensemble playing and to give training in the technique of instrumental accompanying. One and one-half laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 106V. Beginning Accompanying: Vocal.**

Open to any music majors whose major instrument is piano. An introductory course for pianists designed to teach the basic skills involved in vocal accompanying. Students who want to continue study in vocal accompanying after completing Ensemble 106V should register for Ensemble 106W. One and one-half laboratory hours a week for one semester, with additional hours to be arranged.

**ENS 106W. Advanced Accompanying: Vocal.**

Restricted to music majors whose major instrument is piano. An advanced skills for pianists designed to continue to train students in vocal accompanying through more difficult repertoire. One and one-half laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Ensemble 106V or consent of instructor.

**ENS 107E. Undergraduate Instrumental or Vocal Ensemble.**

Open to any University student who can qualify by audition. Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Qualify by audition.

**ENS 107J. Jazz Orchestra.**

Advanced jazz ensemble. Six laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 107K. Large Instrumental Ensemble.**

Offered under various topics according to instrumentation, including Symphony Band, Symphony Orchestra, and Wind Ensemble. Six laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 107L, 207L. Longhorn Band.**

In the spring semester, this organization divides into multiple performing ensembles. For each semester hour of credit earned, the equivalent of three lab hours a week for one semester. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 107N. New Music Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 107S. Small Instrumental Ensemble.**

Offered under various topics according to instrumentation. Two laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 108C. Texas Concert Band.**

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 108D. Tower Concert Band.**

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 108E. Longhorn Concert Band.**

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 108F. Orange Concert Band.**

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 108J. Longhorn Band Jazz Ensemble.**

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 108K. Longhorn Band Percussion Ensemble.**

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 108M. Longhorn Band Color Guard Ensemble.**

One of several Longhorn Band ensembles offered in spring semesters. Three laboratory hours a week for one semester, with additional

laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 108P. Longhorn Pep Band.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 108S. University Saxophone Ensemble.**

Open to any University student who can qualify by audition. Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Qualify by audition.

**ENS 109D. Percussion Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 109F. Harp Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 109G. Guitar Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 109K. Chamber Singers.**

Six laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 109L. Concert Chorale.**

Six laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Open to any University student who can qualify by audition.

**ENS 109N. Saxophone Choir.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 109Q. Non-Jazz Organ Improvisation.**

Restricted to music majors whose primary instrument is organ. Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit.

**ENS 109R. Popular Choral Ensemble: Recording Arts.**

Performing and recording pop vocal ensemble. Three laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 109T. Trombone Choir.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

**ENS 109U. University of Texas Steel Pan Ensemble.**

Two laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Open to any University student who can qualify by audition.

## Upper-Division Courses

### Graduate Courses

#### **ENS 180E. Graduate Instrumental or Vocal Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 181C. Concert Chorale.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 181S. Chamber Singers.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 182S. Symphony Orchestra.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 182U. University Orchestra.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 183C. Symphony Band.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 183S. Wind Symphony.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 183W. Wind Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 184C. Longhorn Concert Band.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 184G. Color Guard Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 184J. Longhorn Band Jazz Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 184L. Longhorn Band.**

In the spring semester, this organization divides into multiple performing ensembles. Six laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 184P. Longhorn Band Percussion Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 184R. Orange Concert Band.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 184T. Texas Concert Band.**

One of several Longhorn Band ensembles offered in spring semesters. One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 184W. Tower Concert Band.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 185C. Jazz Combos.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 185E. Jazz Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 185J. Jazz Orchestra.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 185M. Alternate Improvisation Music Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 185R. Recording Arts Ensemble.**

Performing and recording pop vocal ensemble. One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 186C. Conjunto Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 186E. Early Music Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

#### **ENS 186J. Java Gamelan Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 186K. Hispanic Caribbean Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 186L. Mariachi Laboratory Ensemble.**

Prepare for mariachi ensemble. One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 186M. Mariachi Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 186N. North Indian Music Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 186T. Middle Eastern Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 186V. African American Vocal Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 187N. New Music Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 188P. Butler Opera Productions.**

Six laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 188S. Opera Studio.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 189G. Guitar Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 189H. Harp Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 189N. Saxophone Choir.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 189P. Percussion Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 189T. Trombone Choir.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**ENS 096C. Conjunto Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**ENS 096E. Early Music Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**ENS 096J. Java Gamelan Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**ENS 096K. Hispanic Caribbean Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**ENS 096L. Mariachi Laboratory Ensemble.**

Prepare for mariachi ensemble. One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**ENS 096M. Mariachi Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**ENS 096N. North Indian Music Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**ENS 096T. Middle Eastern Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**ENS 096V. African American Vocal Ensemble.**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**Professional Courses**

# Environmental Engineering Courses

## Environmental Engineering: EVE

### Lower-Division Courses

#### **EVE 302. Foundations of Environmental Engineering.**

Foundational principles in environmental engineering, sources of contaminants, physics and chemistry of water, air, soil, concepts and tools for assessing sustainability. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Credit or registration for Chemistry 302.

#### **EVE 310. Sustainable Systems Engineering.**

Integration and optimization of engineering systems for water treatment, water reuse, and energy production processes given technical, economic, and environmental constraints. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Physics 303L.

#### **EVE 312. Environmental Engineering and Science.**

Quantitative evaluations of environmental processes including mass and energy balances, mass and heat transfer, chemical kinetics, water quality modeling, water treatment, indoor and outdoor air quality, and risk analyses. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Environmental Engineering 302 and credit or registration for Civil Engineering 333T and Mathematics 427J.

### Upper-Division Courses

#### **EVE 350. Environmental Chemistry for a Sustainable World.**

Application of chemical concepts to understand the fate of contaminants in natural and engineered systems. Focus on the use of analytical and graphical tools for solving chemical equilibrium and kinetic problems. Three lecture hours a week for one semester. Prerequisite: Environmental Engineering 312.

#### **EVE 360. Design for Air Quality Improvement.**

Analysis, synthesis, and integrated design of air pollution control systems for improvements in outdoor and indoor air quality. Design for reduction of high impact pollutants of local, regional and global significance with consideration of human inhalation exposure and climate impacts. Three lecture hours a week for one semester, with additional hours to be arranged for design laboratory, system testing, and field trips. Prerequisite: Civil Engineering 319F and 333T; and Civil Engineering 369L or 369R; and Mechanical Engineering 320 or 326.

#### **EVE 370. Design for Environmental Community Improvement.**

Application of engineering to a project that addresses a local, national or international community or design challenge. Problem statement, project objectives, stakeholder input, technical problem solving, environmental, social and economic assessment is performed collaboratively within a multidisciplinary team to develop a final design for a comprehensive service-learning project. Three lecture hours a week for one semester, with additional hours to be arranged for design laboratory. Prerequisite: Civil Engineering 342 or 369L.

#### **EVE 177K, 277K, 377K. Topics in Environmental Engineering.**

Various specified topics or conference course. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 7: Independent Study.** Restricted to environmental engineering majors. Independent research with a tenure track faculty member in the Department of Civil, Architectural, and Environmental Engineering. Prepare a project proposal and a final report, each of which is evaluated by the faculty supervisor. Environmental Engineering 377K (Topic: Independent Study) and 177K, 277K, 377K (Topic 7) may not both be counted. Additional prerequisite: Consent of instructor.

#### **EVE 177R. Internship.**

The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only.

### Graduate Courses

### Professional Courses

## Environmental Science Courses

### Environmental Science: EVS

#### Lower-Division Courses

#### **EVS 311. Field Seminar in Sustainability.**

Restricted to environmental science majors. Introduces field observation and analysis of environmental processes and sustainability issues. Subjects include ecology, hydrogeology, marine science, climate science, energy, and campus sustainability. Two lecture hours and four laboratory or field laboratory hours a week for one semester. Prerequisite: Consent of instructor.

### Upper-Division Courses

#### **EVS 121. Research Methods.**

Restricted to students pursuing a Bachelor of Science in Environmental Science. Overview of the methods involved in research projects designed to help prepare students in independent research projects or internships. One lecture hour and one workshop hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Environmental Science 311 with a grade of at least C-.

#### **EVS 331. Research Methods for the Environmental Sciences.**

Restricted to environmental science majors. Subjects include experimental design, statistical analysis and modeling, and ethics. Students develop and conduct an independent research project during the laboratory portion of the course. Two lecture hours and four laboratory or field laboratory hours a week for one semester. Prerequisite: Environmental Science 311 with a grade of at least C-.

#### **EVS 141. Environmental Science Professionalism I.**

Restricted to environmental science majors. Examines the fundamental, nontechnical aspects of environmental science and sustainability practices through the use of case studies and projects that use interdisciplinary approaches. Subjects may include the importance of interdisciplinary collaboration in addressing and assessing environmental science processes, the development of professional opportunities across disciplines, understanding professional responsibilities, applying ethical principles, the balance of multidisciplinary demands in professional practice, and the need for lifelong learning. One lecture hour a week for one semester. Prerequisite: Senior standing, Environmental Science 311, and 121 with a grade of at least C- in each.

#### **EVS 151. Environmental Science Professionalism II.**

Restricted to environmental science majors. Examines the fundamental, nontechnical aspects of environmental science and sustainability practices. Focuses on the use of interdisciplinary communication for addressing and assessing environmental science processes, the

challenges posed by communicating across disciplines, the development of professional communication and public speaking skills, effective presentation of research, the ethics and practices of peer research review, and effective communication of the effects of environmental science in a global society. One lecture hour a week for one semester. Prerequisite: Environmental Science 141.

### **EVS 171, 271, 371, 471. Research Experience.**

Restricted to environmental science majors. Supervised study of selected topics in environmental science by individual arrangement with the instructor. Conference course. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

### **EVS 172C, 272C, 372C, 472C. Senior Research Proposal in Environmental Science.**

Restricted to seniors in the Bachelor of Science in Environmental Science degree program. Work towards an understanding of the broader literature on a topic, identify hypothesis of interest, design an experiment to test the hypothesis, develop a budget, and write a research proposal. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged as needed. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Biology 373, 373L, and Environmental Science 121, with a grade of at least C- in each.

### **EVS 172D, 272D, 372D, 472D. Senior Research in Environmental Science.**

Restricted to seniors pursuing the Bachelor of Science in Environmental Science degree. Continuation of Environmental Science 172C, 272C, 373C, or 472C. Perform proposed experiment, collect and analyze data, present results, and write a final report. For each semester hour of credit earned, one hour of field work and one and one-half laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Environmental Science 172C, 272C, 372C, or 472C with a grade of at least C- and consent of instructor.

## **Graduate Courses**

## **Professional Courses**

# **European Studies Courses**

## **European Studies: EUS**

### **Lower-Division Courses**

#### **EUS 302. Introductory Interdisciplinary Topics in European Studies.**

Analysis of various aspects of European culture, science, and technology. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 302, 306, 307, 308. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### **EUS 305. Introduction to European Studies.**

The myths, ideas, and sociopolitical realities that underpin the intellectual and cultural construction of Europe. Three lecture hours a week for one semester.

#### **EUS 306. Introductory Topics in European Anthropology, Geography, History, and Sociology.**

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 302, 306, 307, 308. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Race and Gender Stereotypes in Germany.** Same as German, Scandinavian, and Dutch Studies 311D. Examination of

pseudoscientific popular theories of "race" and gender that developed in Germany and elsewhere in Europe in the nineteenth century, and how these affected the lives of millions and shaped current thinking about "racial" and gender differences. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Bad Blood), 306 (Topic 1), German, Scandinavian, and Dutch Studies 311D, Germanic Civilization 301 (Topic: Bad Blood). **Topic 2: Introduction to the History and Culture of Spain.** Same as Ancient History and Classical Civilization 310 (Topic 1) and History 306N (Topic 13). The history of Spain from its beginnings in the stone age through the great social and economic upheavals of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Introduction to the History and Culture of Spain), 310 (Topic 1), European Studies 306 (Topic: Introduction to the History and Culture of Spain), 306 (Topic 2), History 306N (Topic: Introduction to the History and Culture of Spain), 306N (Topic 13).

**Topic 3: The Roots of Religious Toleration.** Same as History 309J, Jewish Studies 311C, and Religious Studies 306D. Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 310 (Topic: Roots of Religious Toleration), European Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 3), History 309J, 317N (Topic: Roots of Religious Toleration), 317N (Topic 1), Jewish Studies 311 (Topic: Roots of Religious Toleration), 311 (Topic 5), 311C, Religious Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 1), 306D.

**Topic 4: Jewish Civilization: 1492 to the Present.** Same as History 306N (Topic 11), Jewish Studies 304N, and Religious Studies 313N. Subjects may include trends toward secularization, the emancipation of European Jewry, the emergence of American Jewry, the Holocaust, the establishment of the State of Israel, and the Arab-Israeli conflict. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Jewish Civilization: 1492 to the Present), 306 (Topic 4), History 306N (Topic 11), Jewish Studies 304N, 311 (Topic: Jewish Civilization: 1492 to the Present), Religious Studies 313 (Topic: Jewish Civilization: 1492 to the Present), 313N.

**Topic 6: Luther's World.** Same as German, Scandinavian, and Dutch Studies 311G, History 304Q, and Religious Studies 315M. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Luther's World), 306 (Topic 6), German, Scandinavian, and Dutch Studies 310 (Topic: Luther's World), 311G, History 304Q, 306N (Topic: Luther's World), Religious Studies 315 (Topic: Luther's World), 315M.

#### **EUS 307. Introductory Topics in European Culture, Literature, Art, Music, and Media.**

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 302, 306, 307, 308. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: The Vampire in Slavic Cultures.** Same as Comparative Literature 305 (Topic 2) and Russian, East European, and Eurasian Studies 302 (Topic 1). Examines the vampire in the cultures of Russia and Eastern Europe, including manifestations in literature, religion, art, film, and common practices from its origins to present. Only one of the following may be counted: Comparative Literature 305 (Topic: The Vampire in Slavic Cultures), 305 (Topic 2), European Studies 307 (Topic: The Vampire in Slavic Cultures), 307 (Topic 1), Russian, East European, and Eurasian Studies 302 (Topic: The Vampire in Slavic Cultures), 302 (Topic 1), Slavic 301 (Topic: The Vampire in Slavic Cultures), 301 (Topic 1).

**Topic 2: Introduction To Czech History and Culture: Puppets, Pubs, And Polyglots.** Same as Russian, East European, and Eurasian Studies 302 (Topic 3). Survey of Czech history and culture from the middle ages to the present day. Subjects include the culture of daily life, literature, history, philosophy, and the arts. Only one of the following may be counted: Czech 301K (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 301K (Topic 3), European Studies 307 (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 307 (Topic 2), Russian, East European, and Eurasian Studies 302 (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 302 (Topic 3).

**Topic 3: Introduction to the Study of Northern Europe.** Same as German, Scandinavian, and Dutch Studies 301. Introduces significant moments in and monuments from the cultural histories of the German-speaking, Scandinavian, and Dutch nations from their beginnings to the present. Designed to discuss representative problems in research and analysis in cultural studies and the humanities. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 307 (Topic: Introduction to the Study of Northern Europe), 307 (Topic 3), German, Scandinavian, and Dutch Studies 301.

**Topic 4: Movies Go To War.** Same as American Studies 315C, Comparative Literature 305 (Topic 3), and German, Scandinavian, and Dutch Studies 311C. A comparison of films from various nations about major twentieth century wars to the historical facts of the conflicts as practicums in critical comparative analysis of histories as representations. Only one of the following may be counted: American Studies 315 (Topic: Movies Go to War, World War I to Vietnam), 315C, Comparative Literature 305 (Topic: Movies Go to War, World War I to Vietnam), 305 (Topic 3), European Studies 307 (Topic: Movies Go to War, World War I to Vietnam), 307 (Topic 4), German, Scandinavian, and Dutch Studies 311C, Germanic Civilization 311 (Topic 2: Movies Go to War, World War I to Vietnam).

**Topic 5: Grimms' Fairy Tales.** Same as Comparative Literature 305 (Topic 4) and German, Scandinavian, and Dutch Studies 311E. Reading and discussion of tales from the Grimms' collection, as well as some of the relevant secondary literature. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 305 (Topic: Grimms' Fairy Tales), 305 (Topic 4), European Studies 307 (Topic: Grimms' Fairy Tales), 307 (Topic 5), German, Scandinavian, and Dutch Studies 310 (Topic: Grimms' Fairy Tales), 311E.

**Topic 6: Cuisine and Culture of Central and Eastern Europe.** Same as Russian, East European, and Eurasian Studies 302C. An in-depth survey of the culinary traditions, history, and practices of Central and Eastern Europe. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 307 (Topic: Cuisine and Culture of Central and Eastern Europe), 307 (Topic 6), Russian, East European, and Eurasian Studies 302 (Topic: Cuisine and Culture of Central and Eastern Europe), 302C.

**Topic 9: War in Comics and Photography: Southeast Europe.** Same as Russian, East European, and Eurasian Studies 302E. Examine different ways to show and tell stories of armed conflict and state-sponsored violence, drawing on a variety of modern media forms - such as comics, cinema, novels, and photography - as well as contemporary digital platforms including social media. Focus on the 1990s conflicts in the former Yugoslavia (Bosnia, Croatia, and Serbia). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 307 (Topic: War in Comics/Photo: SE Eur), 307 (Topic 9), Russian, East European, and Eurasian Studies 302 (Topic: War in Comics/Photo: SE Eur), 302E, Women's and Gender Studies 301 (Topic: War in Comics/Photo: SE Eur).

**Topic 10: Dissent in Twentieth-Century Ukraine.** Same as Comparative Literature 305C and Russian, East European, and Eurasian Studies 302F. Survey Ukrainian authors from the 1920s to the present,

examining writings from "Executed Renaissance," underground literature, and postmodernism. Focus specifically on works that challenge the paradigm of socialist realism by discussing forbidden subjects (famine, religion, Gulag) or accentuating themes that are not considered "major" (personal life). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 305 (Topic: Dissent 20th-Cent Ukraine), 305C, European Studies 307 (Topic: Dissent 20th-Cent Ukraine), 307 (Topic 10), Russian, East European, and Eurasian Studies 302 (Topic: Dissent 20th-Cent Ukraine), 302F.

### **EUS 307M. An Introduction to Western Music.**

Same as Music 302L. Introduction to musical styles in the Euro-American art music tradition between the Middle Ages and the present day. Designed to foster critical listening and thinking about music, and deepen understanding of the vital role that music has played and continues to play in society and in individual lives. Three lecture hours a week for one semester, with one laboratory hour a week as required. Only one of the following may be counted: European Studies 307 (Topic: Introduction to Western Music), 307M, Music 302L.

### **EUS 308. Introductory Topics in European Economics, Government, Business, and Policy.**

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 302, 306, 307, 308. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Germany and Globalization.** Same as American Studies 315 (Topic 8) and German, Scandinavian, and Dutch Studies 311F. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Germany and Globalization), 315 (Topic 8), European Studies 308 (Germany and Globalization), 308 (Topic 1), German, Scandinavian, and Dutch Studies 310 (Topic: Germany and Globalization), 311F.

### **EUS 113. Preparation for Study Abroad in Europe.**

One lecture hour a week for one semester. May not be counted by students who have previously taken an international learning seminar. Offered on the pass/fail basis only.

### **EUS 318Q. Supervised Research.**

Individual instruction.

### **EUS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in European Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for European Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **EUS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in European Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for European Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **EUS 340M. Continuity and Change in Modern France.**

Same as French Civilization 340M. Focuses on various social, political, and cultural crises in France from the revolution of 1789 to the present time. Three lecture hours a week for one semester. European Studies 340M and French Civilization 340M may not both be counted. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upper-division standing.

### **EUS 346. Topics in European Anthropology, Geography, History, and Sociology.**

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 346, 347, 348, 363. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: History of Britain from 1783 through World War I.** Same as History 358M. Surveys the political, social, economic, and intellectual history of Great Britain from the years preceding the outbreak of the French Revolution to the conclusion of World War I. Three lecture hours a week for one semester. European Studies 346 (Topic 1) and History 358M may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 2: Great Discoveries in Archaeology.** Same as Anthropology 326F. The stories, myths, and people behind some of the great archaeological discoveries. Only one of the following may be counted: Anthropology 324L (Topic: Great Discoveries in Archaeology), Anthropology 326F, European Studies 346 (Topic 2). Prerequisite: Upper-division standing.

**Topic 3: Witches, Workers, and Wives.** Same as History 343W and Women's and Gender Studies 345 (Topic 29: Witches, Workers, and Wives). Explores the role of families and concepts of gender as expressed in key economic, social, political, and cultural patterns in early modern Europe. Prerequisite: Upper-division standing.

**Topic 4: Law and Society in Early Modern Europe.** Same as History 350L (Topic 57: Law and Society in Early Modern Europe) and Women's and Gender Studies 340 (Topic 13: Law and Society in Early Modern Europe). Research seminar on how historians have explored the significance of law, criminal and civil, in the lives of early modern Europeans. Topics include infanticide, fornication, drunkenness, theft, debt, slander, and family disputes. Only one of the following may be counted: European Studies 346 (Topic 4), History 350L (Topic 57), Women's and Gender Studies 340 (Topic 13).

**Topic 5: Vienna: Memory and the City.** Same as American Studies 370 (Topic 41), History 362C, and Urban Studies 322C. Examines the ways in which cultural memory has shaped, and continues to shape, urban life in Vienna, Austria. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic 41), European Studies 346 (Topic 5), Geography 356T (Topic: Vienna: Memory and the City), Germanic, Scandinavian, and Dutch Studies 360 (Topic: Vienna: Memory and the City), History 362C, 362G (Topic 2), Urban Studies 322C, 354 (Topic 7). Additional prerequisite: Upper-division standing.

**Topic 6: Sport and English Society.** Same as Sociology 323M. Restricted to students in the Maymester Abroad Program; contact the University's Study Abroad Office for permission to register for this class. Uses the context of sport to explore the internal divisions around class and region that are central to understanding English identity, particularly the tensions between "the north" and "the south," as well as to discover the origins of American sports such as football and baseball. The equivalent of three lecture hours a week for one semester. Taught in Leeds, England. Only one of the following may be counted: European Studies 346 (Topic: Sport and English Society), 346 (Topic 6), Kinesiology 350, Sociology 321K (Topic: Sport and English Society), 323M. Additional prerequisite: Upper-division standing.

**Topic 7: Globalization.** Same as Sociology 340C. A sociological analysis of the interrelated economic, political, and cultural aspects of globalization. Examines the consequences of globalization for nations around the world and for groups within these nations. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Globalization), 346 (Topic 7), Sociology 321K (Topic: Globalization), 340C. Additional prerequisite: Upper-division standing.

**Topic 8: Heretics and Freedom Fighters, 1350-1650.** Same as German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362T, and Religious Studies 357F. Explores the theologies, politics, and personal identities that emerged and passed away in this era. Three lecture hours a week for one semester. Only one of the following may be counted: Czech 324 (Topic 4), European Studies 346 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic 12), 362T, Religious Studies 357 (Topic 12), 357F, Russian, East European, and Eurasian Studies 325 (Topic 28). Additional prerequisite: Upper-division standing.

**Topic 9: Northern Lands and Cultures.** Same as Geography 356T (Topic 4) and Russian, East European, and Eurasian Studies 345 (Topic 6). Develops geographical understanding of the Circumpolar region of the North, an ancient human habitat, home to distinct millennia-old civilizations. Only one of the following may be counted: European Studies 346 (Topic: Northern Lands and Cultures), 346 (Topic 9), Geography 356T (Topic: Northern Lands and Cultures), 356T (Topic 4), Russian, East European, and Eurasian Studies 345 (Topic: Northern Lands and Cultures), 345 (Topic 6). Additional prerequisite: Upper-division standing.

**Topic 10: Women and the Holocaust.** Same as Comparative Literature 323 (Topic 19), German, Scandinavian, and Dutch Studies 341F, Jewish Studies 363 (Topic 11), and Women's and Gender Studies 340 (Topic 50). Introduction to both the history of Jewish and German women during World War II and the Holocaust, and to women's narratives and self-representations of this period. Historical sources, memoirs, films, and interviews will be used as source material. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women's Narratives of the Holocaust and World War II), 323 (Topic 19), European Studies 346 (Topic: Women's Narratives of the Holocaust and World War II), 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Germanic Civilization 323E (Topic: Women's Narratives of the Holocaust and World War II), Jewish Studies 363 (Topic 11), Women's and Gender Studies 340 (Topic: Women's Narratives of the Holocaust and World War II), 340 (Topic 50). Additional prerequisite: Upper-division standing.

**Topic 11: The Spanish Inquisition.** Same as History 350L (Topic 77), Jewish Studies 364 (Topic 5), and Religious Studies 357L. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 11), History 350L (Topic 77), Jewish Studies 364 (Topic 5), Religious Studies 357 (Topic 10), 357L. Additional prerequisite: Upper-division standing.

**Topic 12: World War II in Eastern Europe.** Same as History 350L (Topic 79), Jewish Studies 364 (Topic 11), and Russian, East European, and Eurasian Studies 335 (Topic 19). Examines the war in Eastern Europe with a particular emphasis on occupation, collaboration, and resistance; the Holocaust; and the connection between ethnic cleansing, population transfer, and the establishment of communism in postwar Eastern Europe. Only one of the following may be counted: European Studies 346 (Topic: World War II in Eastern Europe), 346 (Topic 12), History 350L (Topic: World War II in Eastern Europe), History 350L (Topic 79), Jewish Studies 364 (Topic: World War II in Eastern Europe), 364 (Topic 11), Russian, East European, and Eurasian Studies 335 (Topic: World War II in Eastern Europe), 335 (Topic 19).

**Topic 13: Creation.** Same as History 350L (Topic 80) and Religious Studies 373F. Explores the writings of premodern authors as related

to creation and early developments in western theology, science, and philosophy. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 13), History 350L (Topic 80), Religious Studies 373 (Topic 5), 373F. Additional prerequisite: Upper-division standing.

**Topic 14: Enlightenment and Revolution.** Same as Core Texts and Ideas 375 (Topic 3) and History 350L (Topic 81). Examines the relationship between the intellectual project of the Enlightenment and the political and social transformations that unfolded in western Europe and North America from the beginnings of the Dutch Revolt in the 1560s to the decade following the Paris Commune of 1871. Only one of the following may be counted: Core Texts and Ideas 375 (Topic: Enlightenment and Revolution), 375 (Topic 3), European Studies 346 (Topic: Enlightenment and Revolution), 346 (Topic 14), History 350L (Topic: Enlightenment and Revolution), 350L (Topic 81). Additional prerequisite: Upper-division standing.

**Topic 15: Early Western Colonialism.** Same as History 362E. An examination of the phenomenon of colonialism, with an emphasis on the European expansion across the globe that began at the end of the western Middle Ages and continued throughout the early modern period. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Early Western Colonialism), 346 (Topic 15), History 362E, 362G (Topic: Early Western Colonialism), 362G (Topic 5). Additional prerequisite: Upper-division standing.

**Topic 16: Eastern Europe in the Twentieth Century.** Same as History 362Q and Russian, East European, and Eurasian Studies 335 (Topic 16). Examines the major political, social, and cultural events that shaped Eastern European society in the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 16), History 362G (Topic 7), 362Q, Russian, East European, and Eurasian Studies 335 (Topic 16). Additional prerequisite: Upper-division standing.

**Topic 17: Introduction to the Holocaust.** Same as History 362D, Jewish Studies 364 (Topic 6), and Russian, East European, and Eurasian Studies 335 (Topic 17). Examines the mass killing of Jews and other victims in the context of Nazi Germany's quest for race and space during World War II. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Introduction to the Holocaust), 346 (Topic 17), History 362D, 362G (Topic: Introduction to the Holocaust), 362G (Topic 3), Jewish Studies 364 (Topic: Introduction to the Holocaust), 364 (Topic 6), Russian, East European, and Eurasian Studies 335 (Topic: Introduction to the Holocaust), 335 (Topic 17). Additional prerequisite: Upper-division standing.

**Topic 18: Southeast Europe in the Twentieth Century.** Same as History 362S, Jewish Studies 364 (Topic 8), and Russian, East European, and Eurasian Studies 335 (Topic 18). Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 18), History 362G (Topic 9), 362S, Jewish Studies 364 (Topic 8), Russian, East European, and Eurasian Studies 335 (Topic 18). Additional prerequisite: Upper-division standing.

**Topic 19: Regions and Cultures of Europe.** Same as Geography 326 and Russian, East European, and Eurasian Studies 345 (Topic 2). Spatial patterns in Europe, with emphasis on cultural, historical, and political geography. Only one of the following may be counted: European Studies 346 (Topic: Regions and Cultures of Europe), 346 (Topic 19), Geography 326, Russian, East European, and Eurasian Studies 345 (Topic 2). Additional prerequisite: Upper-division standing.

**Topic 20: Protest, Revolt, and Revolution in West Germany.** Same as German, Scandinavian, and Dutch Studies 361J. Explores pivotal political and cultural movements in post-1945 West Germany, including the student movement, terrorism, feminism, the Green

movement, and the anti-nuclear movement. Students engage with a wide array of primary and secondary sources ranging from literature and films to essays, newspaper articles, and speeches in order to examine the roots and results of protest, revolt, and revolution during this period of German history. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Protest, Revolt, and Revolution in Postwar Germany), 346 (Topic 20), German, Scandinavian, and Dutch Studies 360 (Topic: Protest, Revolt, and Revolution in Postwar Germany), 361J, Germanic Civilization 360E (Topic: Protest, Revolt, and Revolution in Postwar Germany). Additional prerequisite: Upper-division standing.

**Topic 21: Spinoza and Modernity.** Same as Core Texts and Ideas 321F, History 362P, Jewish Studies 364 (Topic 9), and Religious Studies 357M. Introduction to the core of Spinoza's writings and the diverse reactions they have elicited. Examines Spinoza's refusal of mind-body dualism, as well as a transcendent god or ideal as a way of understanding Spinoza's concepts and ideas. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 321F, European Studies 346 (Topic 21), 347 (Topic: Spinoza and Modernity), History 362P, Jewish Studies 364 (Topic 9), Philosophy 354 (Topic 7), Religious Studies 357 (Topic 8), 357M. Additional prerequisite: Upper-division standing.

**Topic 22: German Nationalisms.** Same as German, Scandinavian, and Dutch Studies 361K, Government 368T, and Russian, East European, and Eurasian Studies 335 (Topic 20). History of diverse views and movements regarding German national identity within their respective contexts, 1800-present. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 22), German, Scandinavian, and Dutch Studies 361K, Government 365N (Topic 6), 365N (Topic 19), 368T, Russian, East European and Eurasian Studies 335 (Topic 20). Additional prerequisite: Upper-division standing.

**Topic 23: Holocaust Aftereffects.** Same as Comparative Literature 323 (Topic 40), German, Scandinavian, and Dutch Studies 360 (Topic 1), Jewish Studies 365 (Topic 14), Religious Studies 357V, and Women's and Gender Studies 340 (Topic 66). Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 40), European Studies 346 (Topic 23), German, Scandinavian, and Dutch Studies 360 (Topic 1), Jewish Studies 365 (Topic 14), Liberal Arts Honors 350 (Topic: Holocaust Aftereffects), 351Q, Religious Studies 357 (Topic 18), 357V, Women's and Gender Studies 340 (Topic: Holocaust Aftereffects), 340 (Topic 66). Additional prerequisite: Upper-division standing.

**Topic 24: Europe since 1919.** Same as History 323L. Survey course emphasizing the impact of the two world wars on European social, political, and cultural life in the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Europe since 1919), 346 (Topic 24), History 323L. Additional prerequisite: Upper-division standing.

**Topic 25: The French Revolution and Napoleon.** Same as Core Texts and Ideas 363 and History 353. Analysis of the social, political, and economic origins and outcomes of the French Revolution and Napoleon's empire. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: French Revolution and Napoleon), 346 (Topic 25), Core Texts and Ideas 363, 375 (Topic: French Revolution and Napoleon), History 353. Additional prerequisite: Upper-division standing.

**Topic 26: History of Britain from the Restoration to 1783.** Same as History 334J. Surveys the political, social, economic, and intellectual history of England and Great Britain from the restoration of the Stuart monarchy in 1660 to the conclusion of the War for American Independence in 1783. Three lecture hours a week for one semester.

Only one of the following may be counted: European Studies 346 (Topic: History of Britain from the Restoration to 1783), 346 (Topic 26), History 334J. Additional prerequisite: Upper-division standing.

**Topic 27: Italian Renaissance, 1350-1550.** Same as History 343G and Religious Studies 356C. Survey of political, socioeconomic, religious, and intellectual trends during the Italian Renaissance. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Italian Renaissance, 1350-1550), 346 (Topic 27), History 343G, Religious Studies 356C, 357 (Topic: Italian Renaissance, 1350-1550). Additional prerequisite: Upper-division standing.

**Topic 28: The Church and the Jews.** Same as History 361D, Jewish Studies 364 (Topic 10), and Religious Studies 357O. Examination of the complex relationship between the Western Church and Jews over two millennia. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: The Church and the Jews), 346 (Topic 28), History 361D, 362G (Topic 14), Jewish Studies 364 (Topic 10), Religious Studies 357 (Topic 9), 357O. Additional prerequisite: Upper-division standing.

**Topic 29: Anti-Semitism in History and Literature.** Same as Comparative Literature 323 (Topic 42), German, Scandinavian, and Dutch Studies 361L, and Jewish Studies 364 (Topic 1). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Anti-Semitism in History and Literature), 346 (Topic 29), Comparative Literature 323 (Topic: Anti-Semitism in History and Literature), 323 (Topic 42), German, Scandinavian, and Dutch Studies 360 (Topic: Anti-Semitism in History and Literature), 361L, Jewish Studies 361 (Topic: Anti-Semitism in History and Literature), 364 (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 30: Marx and Marxist Theory.** Same as Core Texts and Ideas 335M, History 332R, and Philosophy 342M. Introduction to the writings of Karl Marx as well as to those of his intellectual successors in Europe and around the globe in the nineteenth and twentieth centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Marx and Western Marxism), 335M, European Studies 346 (Topic: Marx and Western Marxism), 346 (Topic 30), History 332R, 362G (Topic: Marx and Western Marxism), Philosophy 334K (Topic: Marx and Western Marxism), 342M. Additional prerequisite: Upper-division standing.

**Topic 32: The Sacred and the Secular in Modern European Thought.** Same as Core Texts and Ideas 332, History 361G, and Religious Studies 357S. Introduces key themes and methodologies of intellectual history and social theory by exploring the dueling approaches to secularization and sacralization in modern European thought. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 332, 335 (Topic: Sacred and Secular in Modern European Thought), 335 (Topic 7), European Studies 346 (Topic: Sacred and Secular in Modern European Thought), 346 (Topic 32), History 361G, 362G (Topic: Sacred and Secular in Modern European Thought), 362G (Topic 19), Religious Studies 357 (Topic: Sacred and Secular in Modern European Thought), 357 (Topic 20), 357S. Additional prerequisite: Upper-division standing.

**Topic 33: European Immigration to Texas in the Nineteenth Century.** Same as American Studies 321K and German, Scandinavian, and Dutch Studies 361S. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: European Immigration to Texas in the Nineteenth Century), 321K, European Studies 346 (Topic: European Immigration to Texas in the Nineteenth Century), 346 (Topic 33), German, Scandinavian, and Dutch Studies 360 (Topic: European Immigration to Texas in the Nineteenth Century), 361S. Additional prerequisite: Upper-division standing.

**Topic 34: German Scholars: US Exile.** Same as American Studies 321L, Comparative Literature 323 (Topic 56), and German,

Scandinavian, and Dutch Studies 361Q. Examine the migration of established European intellectuals into the US, due to the Second World War. Explore how they worked against their persecutors for their own cultural heritage and to influence US intellectual life. Investigate the ethical dilemmas faced in transplanting their lives and projects into new contexts. Three lecture hours a week for one semester.

Only one of the following may be counted: American Studies 321 (Topic: German Scholars: US Exile), 321L, Comparative Literature 323 (Topic: German Scholars: US Exile), 323 (Topic 56), European Studies 346 (Topic: German Scholars: US Exile), 346 (Topic 34), German, Scandinavian, and Dutch Studies 360 (Topic: German Scholars: US Exile), 361Q. Additional prerequisite: Upper-division standing.

**Topic 35: Restitution and Restorative Justice after the Holocaust.** Same as History 366E, Jewish Studies 364 (Topic 17), and Middle Eastern Studies 343 (Topic 17). Examine attempts to find a measure of justice after the Holocaust. Explore themes of human rights and international law. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Holocaust/Restitutn/Justice), 346 (Topic 35), History 366E, 366N (Topic: Holocaust/Restitutn/Justice), Jewish Studies 364 (Topic: Holocaust/Restitutn/Justice), 364 (Topic 17), Middle Eastern Studies 343 (Topic: Holocaust/Restitutn/Justice), 343 (Topic 17). Additional prerequisite: Upper-division standing.

**Topic 36: Stuart England, 1603-1689.** Same as History 375L. Topical lecture course focusing on the most significant political, religious, social, economic, and cultural developments in seventeenth-century England. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Stuart England, 1603-1689), 346 (Topic 36), History 375L. Additional prerequisite: Upper-division standing.

**Topic 37: Tudor England, 1485-1603.** Same as History 375K. Exploration of the most important political, religious, social, economic, and intellectual changes that occurred in England between the accession of Henry VII and the death of Elizabeth I. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Tudor England, 1485-1603), 346 (Topic 37), History 375K. Additional prerequisite: Upper-division standing.

**Topic 38: The Crusades.** Same as Ancient History and Classical Civilization 330 (Topic 5), History 344S, and Religious Studies 375S (Topic 8). An exploration of the religious encounters between eastern and western Christians, Christian heretics, Jews, Muslims, and polytheists; political, military, and cultural changes of the high middle ages; and the ways that crusading ideas and symbols have been reused in contemporary politics and popular culture. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Crusades), 330 (Topic 5), European Studies 346 (Topic: The Crusades), 346 (Topic 38), History 344S, 350L (Topic: The Crusades), Religious Studies 375S (Topic: The Crusades), 375S (Topic 8). Additional prerequisite: Upper-division standing.

**Topic 39: The World of the Victorians.** Same as History 361C. Introduction to the main contours of social and cultural British history, both in Britain and in its burgeoning empire. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: The World of the Victorians), 346 (Topic 39), History 361C, 362G (Topic 13). Additional prerequisite: Upper-division standing.

**Topic 40: Twelfth-Century Renaissance: 1050-1200.** Same as Ancient History and Classical Civilization 330 (Topic 8), History 344G, and Religious Studies 356F. An examination of social, cultural, and intellectual developments in eleventh- and twelfth-century Europe. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Twelfth-Cent Renais: 1050-1200), 330 (Topic: 12th-Century

Renaissance: 1050-1200), 330 (Topic 8), European Studies 346 (Topic: 12th-Century Renaissance: 1050-1200), 346 (Topic 40), History 344G, Religious Studies 356F, 357 (Topic: 12th-Century Renaissance: 1050-1200). Additional prerequisite: Upper-division standing.

**Topic 41: Europe Via Ethnography.** Same as Anthropology 326G. Develop a geographical and historical orientation to Europe and examine the cultural complexity of Europe via ethnography. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Europe via Ethnography), 325L (Topic 20), 326G, European Studies 346 (Topic: Europe via Ethnography), 346 (Topic 41). Additional prerequisite: Upper-division standing.

**Topic 42: Memories of War.** Same as American Studies 321W, German, Scandinavian, and Dutch Studies 362D, and Government 362S. Consider the ways the wars of the twentieth and twenty-first century are being remembered in Germany and the United States - from poems, novels and films to monuments and the controversial debates about military conflicts that the two countries have been involved in. Utilize theories of social memory, and concepts of individual and social mourning, to analyze how war affects individual lives, how societies mourn, and how remembering war impacts national identity and politics. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Memories of War), 321W, European Studies 346 (Topic: Memories of War), 346 (Topic 42), German, Scandinavian, and Dutch Studies 360 (Topic: Memories of War), 362D, Government 362S. Additional prerequisite: Upper-division standing.

#### **EUS 347. Topics in European Culture, Literature, Art, Music, and Media.**

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 346, 347, 348, 363. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Italian Civilization.** Same as Italian Civilization 360. Survey of the social, political, and cultural history of Italy. Taught in English. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic 1), Italian Civilization 360. With consent of the undergraduate adviser in the Department of French and Italian, may be counted toward a major in Italian. Additional prerequisite: Upper-division standing.

**Topic 3: Introduction to Germanic Religion and Myth.** Same as German, Scandinavian, and Dutch Studies 361C and Religious Studies 357T. Survey of the sources and main features of Germanic religion and of the transition from paganism to Christianity in northern Europe and the Germanic territories of western Europe. Subjects include cosmogonic myths; the origin of man and of society; the concept of the soul; gods and goddesses and their mythology; and the organization of worship. Three lecture hours a week for one semester. Only one of the following may be counted: English 322 (Topic 2), European Studies 347 (Topic 3), German, Scandinavian, and Dutch Studies 361C, Religious Studies 365 (Topic 2), Religious Studies 357 (Topic 17), 357T. Additional prerequisite: Upper-division standing.

**Topic 7: The European Novel.** Same as English 356. Selected masterpieces of continental fiction in English translation; representative novelists of the nineteenth and twentieth centuries. Three lecture hours a week for one semester. English 356 and European Studies 347 (Topic 7) may not both be counted. Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**Topic 12: Social Dramas of Henrik Ibsen.** Same as Comparative Literature 323 (Topic 17), German, Scandinavian, and Dutch Studies 341D, and Women's and Gender Studies 345 (Topic 14). A detailed introduction to Ibsen's social dramas (1877-1899), emphasizing their

unity as a prolonged commentary on the society of his era and the variety of its human problems. Special emphasis on subjects such as: the family and the home; the public world of reputation, work, and citizenship; the predicaments of men and women in a male-dominated society; and the motives of our interventions into the lives of others. Only one of the following may be counted: Comparative Literature 323 (Topic: Social Dramas of Henrik Ibsen), 323 (Topic 17), English 322 (Topic 17), European Studies 347 (Topic: Social Dramas of Henrik Ibsen), 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, Women's and Gender Studies 345 (Topic 14). Additional prerequisite: Upper-division standing.

**Topic 13: Films of Ingmar Bergman.** Same as Comparative Literature 323 (Topic 11) and German, Scandinavian, and Dutch Studies 331C. An introduction to the films of Ingmar Bergman. Only one of the following may be counted: Comparative Literature 323 (Topic: Films of Ingmar Bergman), 323 (Topic 11), English 322 (Topic 18), European Studies 347 (Topic: Films of Ingmar Bergman), 347 (Topic 13), German, Scandinavian, and Dutch Studies 331C, Scandinavian 327 (Topic 9). Additional prerequisite: Upper-division standing.

**Topic 14: Hans Christian Andersen.** Same as Comparative Literature 323 (Topic 12) and German, Scandinavian, and Dutch Studies 341E. Introduction to such Hans Christian Andersen tales as "The Little Mermaid," "The Ugly Duckling," and "The Emperor's New Clothes." Examination of their author and the romantic period in which they were written, as well as their historical, philosophical, and literary context. Only one of the following may be counted: Comparative Literature 323 (Topic: Hans Christian Andersen), 323 (Topic 12), English 322 (Topic 19), European Studies 347 (Topic: Hans Christian Andersen), 347 (Topic 14), German, Scandinavian, and Dutch Studies 341E, Germanic Civilization 323E (Topic 4), Scandinavian 373 (Topic 4). Additional prerequisite: Upper-division standing.

**Topic 15: Isak Dinesen/Karen Blixen.** Same as Comparative Literature 323 (Topic 14), German, Scandinavian, and Dutch Studies 341G, and Women's and Gender Studies 345 (Topic 13). An introduction to the twentieth-century Danish author Karen Blixen, focusing on her major themes such as gender and destiny, and examining her role as a literary figure. Only one of the following may be counted: Comparative Literature 323 (Topic: Isak Dinesen/Karen Blixen), 323 (Topic 14), European Studies 347 (Topic: Isak Dinesen/Karen Blixen), 347 (Topic 15), German, Scandinavian, and Dutch Studies 341G, Women's and Gender Studies 345 (Topic 13). Additional prerequisite: Upper-division standing.

**Topic 16: Contemporary Scandinavian Stories.** Same as Comparative Literature 323 (Topic 10) and German, Scandinavian, and Dutch Studies 341J. An analysis of contemporary Scandinavian literature and films, how they reflect Scandinavian reality, and how Scandinavian identity is created through sports, food, and politics. Only one of the following may be counted: Comparative Literature 323 (Topic: Contemporary Scandinavian Stories), 323 (Topic 10), European Studies 347 (Topic: Contemporary Scandinavian Stories), 347 (Topic 16), German, Scandinavian, and Dutch Studies 341J, Germanic Civilization 323E (Topic: Contemporary Scandinavian Stories), Scandinavian 373 (Topic: Contemporary Scandinavian Stories). Additional prerequisite: Upper-division standing.

**Topic 17: The Scandinavian Contribution to World Literature.** Same as Comparative Literature 323 (Topic 16) and German, Scandinavian, and Dutch Studies 341K. Close readings of the most influential Scandinavian texts, including works by Nobel Prize-winning authors such as Knut Hamsun and Selma Lagerlof, as well as the playwrights August Strindberg and Henrik Ibsen while addressing important themes caused by the revolutionary transition to modernity in Scandinavia around 1900, including emancipation of women and sexuality. Only one of the following may be counted: Comparative Literature 323 (Topic: The Scandinavian Contribution to World Literature), 323 (Topic 16), European Studies 347 (Topic: The

Scandinavian Contribution to World Literature), 347 (Topic 17), German, Scandinavian, and Dutch Studies 341K, Germanic Civilization 323E (Topic: The Scandinavian Contribution to World Literature), Scandinavian 373 (Topic: The Scandinavian Contribution to World Literature). Additional prerequisite: Upper-division standing.

**Topic 18: Medieval Women Mystics.** Same as German, Scandinavian, and Dutch Studies 361D, Religious Studies 357U, and Women's and Gender Studies 340 (Topic 51). The life and writings of Saint Birgitta of Sweden, fourteenth-century visionary, religious reformer, and pilgrim, examined and compared with her predecessor Hildegard of Bingen (Germany), her successor Margery Kempe (England), as well as Margery's mentor, Julian of Norwich. Social and historical contexts for all four of these women mystics will be explored in depth. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, Germanic Civilization 327E (Topic 10), Religious Studies 357 (Topic 15), 357U, Scandinavian 373 (Topic 8), Women's and Gender Studies 340 (Topic 51). Additional prerequisite: Upper-division standing.

**Topic 19: Tolerance in Dutch Culture.** Same as German, Scandinavian, and Dutch Studies 361E and Women's and Gender Studies 340 (Topic 37). The historical roots of Dutch "tolerance" and how it plays a role in current Dutch culture and attitudes towards religious, gender, and sexual differences, as well as drug use, prostitution, and euthanasia. Exploration of the stereotypes and the actuality of these Dutch attitudes and policies from an international comparative perspective. Only one of the following may be counted: European Studies 347 (Topic: Dutch Culture: Too tolerant?), 347 (Topic 19), German, Scandinavian, and Dutch Studies 361E, Germanic Civilization 327E (Topic: Dutch Culture: Too tolerant?), Women's and Gender Studies 340 (Topic: Dutch Culture: Too tolerant?), 340 (Topic 37). Additional prerequisite: Upper-division standing.

**Topic 20: Squaring the Vienna Circle.** Same as Comparative Literature 323 (Topic 18), German, Scandinavian, and Dutch Studies 361F, and Philosophy 329F. Traces the origin of the Vienna Circle of Logical Empiricism in nineteenth-century Europe, and introduces central texts and problems of intellectual history and historical epistemology at the roots of today's analytic philosophy. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Squaring the Vienna Circle), 323 (Topic 18), European Studies 347 (Topic: Squaring the Vienna Circle), 347 (Topic 20), German, Scandinavian, and Dutch Studies 361F, Germanic Civilization 362E (Topic: Squaring the Vienna Circle), Philosophy 327 (Topic: Squaring the Vienna Circle), 329F, 354 (Topic: Squaring the Vienna Circle). Additional prerequisite: Upper-division standing.

**Topic 23: Dante.** Same as Core Texts and Ideas 344D, English 366D, and Italian Civilization 348. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 344D, 345 (Topic: Dante), English 322 (Topic 23), 366D, European Studies 347 (Topic: Dante), 347 (Topic 23), Italian Civilization 348, 349 (Topic 2). Additional prerequisite: Upper-division standing.

**Topic 24: Feminism and Film: Women Filmmakers in Northern and Central Europe.** Same as Comparative Literature 323 (Topic 33), German, Scandinavian, and Dutch Studies 331D, and Women's and Gender Studies 340 (Topic 65). An introduction to the work of women filmmakers from Scandinavia, Germany, as well as to the viewing and interpretation of films in general. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women Filmmakers in Northern and Central Europe), 323 (Topic 33), European Studies 347 (Topic: Women Filmmakers in Northern and Central Europe), 347 (Topic 24), German, Scandinavian, and Dutch Studies 330 (Topic: Women Filmmakers in Northern and Central Europe), 331D, Women's and Gender Studies 340 (Topic: Women Filmmakers in Northern and Central Europe), 340 (Topic 65). Additional prerequisite: Upper-division standing.

**Topic 26: Art in the Lives of Ordinary Romans.** Same as Art History 327R. Art and architecture from the archaeological sites of Pompeii, Herculaneum, and Ostia as indices of Roman culture, 100 BC to AD 250. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 327R, European Studies 347 (Topic: Art in the Lives of Ordinary Romans), 347 (Topic 26).

**Topic 27: Northern Renaissance Art, 1350-1500.** Same as Art History 332K and Religious Studies 357J. Northern European art from the International Style to van Eyck and Hieronymus Bosch. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 332K, European Studies 347 (Topic: Northern Renaissance Art, 1350-1500), 347 (Topic 27), Religious Studies 357 (Topic: Northern Renaissance Art, 1350-1500), 357 (Topic 7), 357J.

**Topic 28: Romanesque Art and Architecture.** Same as Art History 329R. Form and function of religious art in twelfth-century Europe. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 329R, European Studies 347 (Topic: Romanesque Art and Architecture), 347 (Topic 28).

**Topic 29: Early Italian Renaissance Art to 1470.** Same as Art History 331K and Core Texts and Ideas 352D. Traces the beginnings of the "rebirth" (renaissance) of the visual arts, from the end of the Middle Ages to the heyday of the Medici. Works of art are analyzed both in formal terms and in relation to contemporary society, religion, philosophy, economics, statecraft, gender, and other significant issues. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 331K, Core Texts and Ideas 352D, 375 (Topic: Early Italian Renaissance Art to 1470), European Studies 347 (Topic: Early Italian Renaissance Art to 1470), 347 (Topic 29).

**Topic 30: Gothic Cathedral: Amiens.** Same as Art History 330J and Religious Studies 357Q. An examination of the cathedral at Amiens, its meaning, structure, political and financial contexts, and sculptural programs, as well as its influence on other buildings in France and Germany. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 330J, 374 (Topic: Gothic Cathedral: Amiens), European Studies 347 (Topic: Gothic Cathedral: Amiens), 347 (Topic 30), Religious Studies 357 (Topic 14), 357Q.

**Topic 31: The Age of Rembrandt and Rubens: Northern Baroque Art.** Same as Art History 333L and Religious Studies 357R. Northern European art in the seventeenth century, stressing the Netherlands and Flanders. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 333L, European Studies 347 (Topic: The Age of Rembrandt and Rubens: Northern Baroque Art), 347 (Topic 31), Religious Studies 357 (Topic 11), 357R.

**Topic 32: Northern Renaissance Art, 1500-1600.** Same as Art History 332L and Religious Studies 357K. Art and cultural development in the sixteenth century; artists include Durer, Gruenewald, Holbein, and Brueghel. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 332L, European Studies 347 (Topic: Northern Renaissance Art, 1500-1600), 347 (Topic 32), Religious Studies 357 (Topic: Northern Renaissance Art, 1500-1600), 357 (Topic 6), 357K. Additional prerequisite: Upper-division standing.

**Topic 33: Art and the City in Renaissance Italy.** Same as Art History 331P and Core Texts and Ideas 375 (Topic 4). Art, architecture, and emerging civic identity in Florence, Siena, Venice, and other Italian Renaissance city-states. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 331P, 364 (Topic: Art and the City in Renaissance Italy), Core Texts and Ideas 375 (Topic: Art and the City in Renaissance Italy), 375 (Topic 4), European Studies 347 (Topic: Art and the City in Renaissance Italy), 347 (Topic 33), Italian Civilization 349 (Topic: Art and the City in Renaissance Italy), Western Civilization 320 (Topic: Art and the City in Renaissance Italy).

**Topic 34: Berlin.** Same as Comparative Literature 323 (Topic 44), German, Scandinavian, and Dutch Studies 361M, History 361F, and

Urban Studies 326F. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Berlin), 323 (Topic 44), European Studies 347 (Topic: Berlin), 347 (Topic 34), German, Scandinavian, and Dutch Studies 360 (Topic: Berlin), 361M, History 361F, 362G (Topic: Berlin), 362G (Topic 17), Urban Studies 326F, 353 (Topic: Berlin), 353 (Topic 7). Additional prerequisite: Upper-division standing.

**Topic 35: Vikings and Their Literature.** Same as Comparative Literature 323 (Topic 43) and German, Scandinavian, and Dutch Studies 341L. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Vikings and Their Literature), Comparative Literature 323 (Topic: Vikings and Their Literature), 323 (Topic 43), English 322 (Topic: Vikings and Their Literature), European Studies 347 (Topic: Vikings and Their Literature), 347 (Topic 35), German, Scandinavian, and Dutch Studies 340 (Topic: Vikings and Their Literature), 341L. Additional prerequisite: Upper-division standing.

**Topic 36: Scandinavian Cinema Since 1980.** Same as Comparative Literature 323 (Topic 50) and German, Scandinavian, and Dutch Studies 331E. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Scandinavian Cinema Since 1980), 323 (Topic 50), European Studies 347 (Topic: Scandinavian Cinema Since 1980), 347 (Topic 36), German, Scandinavian, and Dutch Studies 330 (Topic: Scandinavian Cinema Since 1980), 331E. Additional prerequisite: Upper division standing.

**Topic 37: Arendt and de Beauvoir.** Same as Comparative Literature 323 (Topic 45), German, Scandinavian, and Dutch Studies 341M, and Women's and Gender Studies 340 (Topic 61). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Arendt And De Beauvoir), 323 (Topic 45), European Studies 347 (Topic: Arendt And De Beauvoir), 347 (Topic 37), German, Scandinavian, and Dutch Studies 340 (Topic: Arendt And De Beauvoir), 341M, Women's and Gender Studies 340 (Topic: Arendt And De Beauvoir), 340 (Topic 61). Additional prerequisite: Upper division standing.

**Topic 38: Nobel Prizes: Literature and Politics.** Same as Comparative Literature 323 (Topic 48) and German, Scandinavian, and Dutch Studies 341N. An introduction to Nobel Prize winning authors from northern Europe in the context of literary prizes and the politics of literary reputation. Analyze and compare literary works, set novels into historical context, investigate what popular and scholarly reviews do, and research in both popular and scholarly sources. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Nobel Prizes: Literature and Politics), 323 (Topic 48), European Studies 347 (Topic: Nobel Prizes: Literature and Politics), 347 (Topic 38), German, Scandinavian, and Dutch Studies 340 (Topic: Nobel Prizes: Literature and Politics), 341N. Additional prerequisite: Upper division standing.

**Topic 39: Northern European Children's Literature.** Same as Comparative Literature 323 (Topic 47) and German, Scandinavian, and Dutch Studies 341P. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Northern European Children's Literature), 323 (Topic 47), European Studies 347 (Topic: Northern European Children's Literature), 347 (Topic 39), German, Scandinavian, and Dutch Studies 340 (Topic: Northern European Children's Literature), 341P. Additional prerequisite: Upper division standing.

**Topic 40: Northern European Comics.** Same as Comparative Literature 323 (Topic 49) and German, Scandinavian, and Dutch Studies 341Q. A study of graphic novels from Scandinavia, Germany, and Holland to understand the art form of comics and the influence of the cultures in which they were produced. Readings, all in English, cover various genres and time periods. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Northern European Comics), 323 (Topic 49), European Studies

347 (Topic: Northern European Comics), 347 (Topic 40), German, Scandinavian, and Dutch Studies 340 (Topic: Northern European Comics), 340 (Topic 1), 341Q. Additional prerequisite: Upper division standing.

**Topic 41: Exhibitions and Public Spectacle.** Same as Comparative Literature 323 (Topic 46), Geography 320N, and German, Scandinavian, and Dutch Studies 361N. Investigate exhibits, world's fairs, museum, monuments, theme parks, and historical reconstructions from Europe and the US, with attention to images of how their sponsoring nations or other entities want to be seen. Examine evidence for both the good and bad sides of national pride and identity. Explore examples of how large-scale culture projects and the public interact. Consider the lasting marks left on the cities and countries sponsoring them. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Exhibitionism and Public Spectacle), 323 (Topic 46), European Studies 347 (Topic: Exhibitionism and Public Spectacle), 347 (Topic 41), Geography 320N, 356T (Topic: Exhibitionism and Public Spectacle), German, Scandinavian, and Dutch Studies 360 (Topic: Exhibitionism and Public Spectacle), 361N. Additional prerequisite: Upper division standing.

**Topic 42: Viking Language: Runes and Sagas.** Same as Comparative Literature 323 (Topic 51) and German, Scandinavian, and Dutch Studies 361R. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Viking Language: Runes and Sagas), 323 (Topic 51), European Studies 347 (Topic: Viking Language: Runes and Sagas), 347 (Topic 42), German, Scandinavian, and Dutch Studies 360 (Topic: Viking Language: Runes and Sagas), 361R. Additional prerequisite: Upper division standing.

**Topic 44: Women and Resistance in Contemporary Eastern Europe.** Same as Russian, East European, and Eurasian Studies 325 (Topic 36) and Women's and Gender Studies 340 (Topic 60). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Women and Resistance in Contemporary Eastern Europe), 347 (Topic 44), Russian, East European, and Eurasian Studies 325 (Topic: Women and Resistance in Contemporary Eastern Europe), 325 (Topic 36), Women's and Gender Studies 340 (Topic: Women and Resistance in Contemporary Eastern Europe), 340 (Topic 60). Additional prerequisite: Upper-division standing.

**Topic 45: Art at Court: The Gothic Period.** Same as Art History 330G. Changing manifestations of Gothic art and architecture at selected court centers, 1140 to 1400. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 330G, European Studies 347 (Topic: Art at Court: The Gothic Period), 347 (Topic 45).

**Topic 46: Twentieth-Century European Art to 1940.** Same as Art History 337K. Major movements in the development of modern European painting and sculpture. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 337K, European Studies 347 (Topic: Twentieth-Century European Art to 1940), 347 (Topic 46).

**Topic 47: Punks and Divas in Southeast Europe.** Same as Russian, East European, and Eurasian Studies 325 (Topic 38) and Women's and Gender Studies 345D. Examine popular music and its role in political struggle and collective identity formation in the Balkans. Analyze music genres in this region in the context of the historical changes it underwent in the twentieth and twenty-first centuries, including the fall of Communism and -- in the case of former Yugoslavia -- the formation of seven new nation-states through a series of bloody and brutal wars. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Punks/Divas in SE Europe), 347 (Topic 47), Russian, East European, and Eurasian Studies 325 (Topic: Punks/Divas in SE Europe), 325

(Topic 38), Women's and Gender Studies 345 (Topic: Punks/Divas in SE Europe), 345D. Additional prerequisite: Upper-division standing.

**Topic 49: Art in the Age of Dante and Giotto.** Same as Art History 329T. Examine the art of the later Middle Ages in Italy (1200-1400), including work by Giotto, Duccio, Nicola and Giovanni Pisano, and Arnolfo de Cambio. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 329T, Art History 363 (Topic: Art in the Age of Dante/Giotto), European Studies 347 (Topic: Art in the Age of Dante/Giotto), European Studies 347 (Topic 49).

**Topic 50: Vamps, Stars, and The Diva.** Same as French Civilization 336 and Italian Civilization 336. Examine French and Italian films through the lens of stardom. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Vamps, Stars, and The Diva), 347 (Topic 50), French Civilization 336, 345 (Topic: Vamps, Stars, and The Diva), Italian Civilization 336, 349 (Topic: Vamps, Stars, and The Diva), Women's and Gender Studies 345 (Topic: Vamps, Stars, and The Diva). Additional prerequisite: Upper-division standing.

**Topic 51: Italian Television Advertising.** Same as Italian Civilization 338 and Women's and Gender Studies 340 (Topic 92). Analysis of Italian television commercials in order to identify changes that have taken place at the level of language, with some attention to socio-cultural dynamics. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Itl TV Ads: Fashion/Food/Cars), 347 (Topic 51), Italian Civilization 338, 349 (Topic: Itl TV Ads: Fashion/Food/Cars), Women's and Gender Studies 340 (Topic: Itl TV Ads: Fashion/Food/Cars), 340 (Topic 92). Additional prerequisite: Upper-division standing.

**Topic 52: Italian Masterpieces.** Same as Core Texts and Ideas 344M and Italian Civilization 337. Study of representative texts in visual arts, film, literature, and opera, from the Renaissance to the present, in their historical context. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 344M, 375 (Topic: Italy Masters: Lit/Film/Art), European Studies 347 (Topic: Italy Masters: Lit/Film/Art), 347 (Topic 52), Italian Civilization 337, 349 (Topic: Italy Masters: Lit/Film/Art). Additional prerequisite: Upper-division standing.

### **EUS 348. Topics in European Economics, Government, Business, and Policy.**

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 346, 347, 348, 363. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Governments and Politics of Eastern Europe.** Same as Government 324J and Russian, East European, and Eurasian Studies 335 (Topic 2: Governments and Politics of Eastern Europe). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic 1), Government 324J, Russian, East European, and Eurasian Studies 335 (Topic 2). Additional prerequisite: Six semester hours of lower-division coursework in government.

**Topic 2: International Trade.** Same as International Business 350. Study of the principles, policies, and problems of the international exchange of goods and investments. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 339K, European Studies 348 (Topic 2), International Business 320F, 350, 350S. Additional prerequisite: Upper-division standing.

**Topic 3: European Environmental Politics.** Same as Government 365U. The history of environmental politics in both the member states of the European Union and the EU itself, including conceptual treatment of general environmental politics and policies, history of European environmentalism, and institutional responses at important 'traditional' and new EU member states. Also examines

EU environmental policies themselves, such as the EU Emissions Trading System, chemicals policy, and GMO policy. Only one of the following may be counted: European Studies 348 (Topic: European Environmental Politics), 348 (Topic 3), Government 365N (Topic: European Environmental Politics), 365N (Topic 20) 365U. Additional prerequisite: Six semester hours of lower-division coursework in government.

**Topic 4: Comprehensive Notions of European Security.** Same as Government 365V. Examines the conceptual and practical aspects of European comprehensive security via the institutions charged with implementing it: the European Union (EU), the North Atlantic Treaty Organization (NATO), and the Organization for Security and Cooperation in Europe (OSCE). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Comprehensive Notions of European Security), 348 (Topic 4), Government 365N (Topic: Comprehensive Notions of European Security), 365N (Topic 21), 365V. Additional prerequisite: Six semester hours of lower-division coursework in government.

**Topic 5: The European Union and Regional Integration.** Same as Government 348C. Designed to provide a detailed introduction to the European Union, one of America's major economic and political partners and one of the major actors in contemporary international relations. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: European Union and Regional Integration), 348 (Topic 5), Government 348C, 365N (Topic: European Union and Regional Integration), 365N (Topic 25). Additional prerequisite: Upper-division standing.

**Topic 6: Hegel and the Formation of Modern European Identity.** Same as Core Texts and Ideas 335E and Government 335E. An in-depth study of how Hegel identifies the social conditions necessary for personal self-realization but also for freedom by means of political community. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Hegel and the Formation of Modern European Identity), 335 (Topic 3), 335E, European Studies 348 (Topic: Hegel and the Formation of Modern European Identity), 348 (Topic 6), Government 335E, 335M (Topic: Hegel and the Formation of Modern European Identity), 335M (Topic 13). Additional prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**Topic 7: Germany and Immigration.** Same as German, Scandinavian, and Dutch Studies 360 (Topic 5). Only one of the following may be counted: European Studies 348 (Topic: Germany and Immigration), 348 (Topic 7), German, Scandinavian, and Dutch Studies 360 (Topic: Germany and Immigration), 360 (Topic 5). Additional prerequisite: Upper division standing.

**Topic 8: Sports and Politics in Germany.** Same as German, Scandinavian, and Dutch Studies 361P. Explore how fascism, communism, liberal democracy, and the current nationalistic backlash against immigration have all used the popularity of sports to achieve their strategic goals, from the 1936 Nazi Olympics to Germany's 2014 World Cup victory and beyond. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Sports and Politics in Germany), 348 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic: Sports and Politics in Germany), 361P. Additional prerequisite: Upper division standing.

**Topic 9: Politics of Memory: Germany and the United States.** Same as American Studies 321R, German, Scandinavian, and Dutch Studies 361U, and Government 368U. Examine the role that narratives of the past play in politics and policies in both Germany and the United States, by engaging with key theoretical and empirical debates. Focus on the role of memory in German and US immigration politics. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Politics Of Memory: GER/US), 321R, European Studies 348 (Topic: Politics Of Memory: GER/US),

348 (Topic 9), German, Scandinavian, and Dutch Studies 360 (Topic: Politics Of Memory: GER/US), 361U, Government 365N (Topic: Politics Of Memory: GER/US), 368U. Additional prerequisite: Upper-division standing.

**Topic 10: Nazi Culture and Politics.** Same as German, Scandinavian, and Dutch Studies 361V, Government 368V, and History 361R. Explore fundamental questions about the unique role of culture in modern democracies and dictatorships by taking an overview of culture and politics in the Third Reich. Examine questions about the relationship between political propaganda and modern entertainment, mass media and authoritarianism, political aesthetics and ideology, and the dynamics of oppression, resistance, and consent. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Nazi Culture and Politics), 348 (Topic 10), German, Scandinavian, and Dutch Studies 360 (Topic: Nazi Culture and Politics), 361V, Government 365N (Topic: Nazi Culture and Politics), 368V, History 361R, 362G (Topic: Nazi Culture and Politics). Additional prerequisite: Upper-division standing.

**Topic 13: Security and Policy in Eastern Europe and Russia.** Same as Government 362U and Russian, East European, and Eurasian Studies 335 (Topic 31). Examine key contemporary security issues and policy dilemmas through the perspective of post-communist Eastern European countries in the context of European Union (EU) enlargement waves, and in the framework of their membership in supranational organizations. Consider the transformation of regional states' national security strategies, threat perception, and priorities transitioning from former Warsaw pact to full-fledged EU and NATO membership in shaping their respective national security priorities. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic 13), Government 362U, 365N (Topic: Security/Policy E Eur/Rus), Russian, Eastern Europe, and Eurasian Studies 335 (Topic: Security/Policy E Eur/Rus), 335 (Topic 31). Additional prerequisite: Upper-division standing.

**Topic 15: Switzerland and Globalization.** Same as German, Scandinavian, and Dutch Studies 361T and Government 363U. Investigate how the small European country of Switzerland positions itself in a globalized world and how it competes and thrives in it. Explore the questions of how globalization impacts a small, affluent country and how its economy copes with globalization. Consider Swiss history, and its development of direct democracy, to understand Swiss exceptionalism, its response to contemporary issues, and its influence abroad. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Switzerland/Globalization), 348 (Topic 15), German, Scandinavian, and Dutch Studies 360 (Topic: Switzerland/Globalization), 361T, Government 365N (Topic: Switzerland/Globalization), 363U. Additional prerequisite: Upper-division standing.

### **EUS 350. Governments and Politics of Western Europe.**

Same as Government 324L. Comparative study of peoples, institutions, parties, interest groups, and bureaucracy in the countries of Western Europe, concentrating on the major political systems of Britain, France, Germany, and Italy. Three lecture hours a week for one semester. European Studies 350 and Government 324L may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

### **EUS 356. Germany and Europe since 1945.**

Restricted to students participating in the summer program in Wuerzburg, Germany. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing and consent of instructor.

### **EUS 358Q. Supervised Research.**

Individual instruction. Prerequisite: Upper-division standing.

### **EUS 362. Independent Research in European Studies.**

Tutorially directed research on a modern European topic. Conference course. Required for the concentration in European studies. May be repeated for credit. Prerequisite: Upper-division standing, admission to the European studies program, and consent of instructor.

### **EUS 363. Interdisciplinary Topics in European Studies.**

An analysis of various aspects of European culture, science, and technology. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: European Studies 346, 347, 348, 363. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **EUS 375. Capstone Research in European Studies.**

Supervised research on a modern European topic chosen in consultation with the student's adviser and culminating in a full-length thesis. Individual instruction. Prerequisite: Upper-division standing, admission to the European studies major, and consent of instructor.

## **Graduate Courses**

### **EUS 381. Advanced Topics in European Studies.**

Examination of recent developments in Europe, with emphasis on the role of the European Union in political, cultural, economic, and security matters. Three lecture hours a week for one semester or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

## **Professional Courses**

## **Finance Courses**

### **Finance: FIN**

#### **Lower-Division Courses**

#### **Upper-Division Courses**

#### **FIN 320F. Foundations of Finance.**

Restricted to non-McCombs School of Business majors. Principles of effective financial management, including planning, organization, and control; financial intermediaries; securities markets; evaluating alternative assets, debt, and capital structures. Three lecture hours a week for one semester. Prerequisite: Forty-five semester hours of college coursework and one of the following: Accounting 310F; Accounting 311 or 311H, and Accounting 312 or 312H; 6 semester hours of accounting coursework.

#### **FIN 321K. Intermediate Microeconomics for Business.**

Restricted to students in a business major. Explore microeconomic analysis of consumer theory, producer theory, decision-making under uncertainty, and market equilibrium. Examine game theory, monopoly and oligopoly behavior, and the principal-agent problem. Consider the application of these ideas to decisions made by business leaders in real-world settings. Three lecture hours a week for one semester. Only one of the following may be counted: Finance 321K, Economics 420K, 421K. Prerequisite: Mathematics 408Q, 408D, 408L, or 408S with a grade of at least C-.

#### **FIN 322F. Foundations of Personal Finance.**

Restricted to non-McCombs School of Business majors. Explore an overview from the individual and family perspectives of financial planning tools, cash management, consumer credit, and basic tax preparation, insurance selection, investment and retirement planning.

Includes application of knowledge to hypothetical situations and case studies. The equivalent of three lecture hours a week for one semester. Human Development and Family Sciences 322 and Finance 322F may not both be counted. Prerequisite: Upper-division standing.

#### **FIN 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in Finance.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Finance. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

#### **FIN 357. Business Finance.**

Restricted to students in the McCombs School of Business. Principles of finance, with application to all aspects of the business firm; particular attention to cost of capital, investment decisions, management of assets, and procurement of funds. Three lecture hours a week for one semester. Finance 357 and 357H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for the following: Accounting 312 or 312H; and Business Administration 324 or 324H; and Statistics 371G or 371H, or Statistics 235 or 235H and Decision Science 235 or 235H.

#### **FIN 357H. Business Finance: Honors.**

Restricted to students in the McCombs School of Business Honors Program. An investigation of the principles of finance, with application to all aspects of the business firm; particular attention to cost of capital, investment decisions, management of assets, and procurement of funds. Three lecture hours a week for one semester. Finance 357 and 357H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Economics 304K and 304L, and credit or registration for the following: Accounting 312H; and Business Administration 324H; and Statistics 371H, or Statistics 235H and Decision Science 235H.

#### **FIN 165P, 365P. Energy Finance Practicum.**

Restricted to students accepted to the Helios Challenge. Students apply skills in the energy industry and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May not be used to satisfy the professional, business related internship or practicum course degree requirement for the Bachelor of Business Administration. Prerequisite: Consent of instructor.

#### **FIN 366P. Finance Practicum.**

Restricted to students accepted to the Financial Analyst Program or Real Estate Investment Trust Program. Students apply skills in their major area and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise. The equivalent of three lecture hours a week for one semester. Prerequisite: Forty-five semester hours of college coursework and consent of instructor.

#### **FIN 367. Investment Management.**

Restricted to students in a business major. Investment theory, alternatives, and decision making under differing uncertainties and constraints; formulation of objectives and strategies; development of conceptual managerial perspectives and philosophies for investment environments. Three lecture hours a week for one semester. Prerequisite: Finance 357 or 357H.

#### **FIN 370. Integrative Finance.**

Restricted to students in a business major. Integrates financial decision making in functional areas of finance; utilizes various concepts to promulgate strategies, policies, and procedures in managing funds to achieve objectives. Three lecture hours a week for one semester. Finance 370 and 370H may not both be counted. Prerequisite: Senior standing; Finance 357 or 357H, and 367 (or 367Q); credit or registration for one of the following: Accounting 353J, 366P; Business Administration 353, 353H, Finance 353, 366P; Management 347P, 353, 366P, 367P, 369P; Management Information Systems 353, 366P; Marketing 353, 366P; Operations Management 353, or 366P; and three additional semester hours of coursework in finance or real estate.

#### **FIN 370H. Integrative Finance: Honors.**

Restricted to students admitted to the McCombs School of Business Honors Program. Integrates financial decision making in functional areas of finance; utilizes various concepts to promulgate strategies, policies, and procedures in managing funds to achieve objectives. Three lecture hours a week for one semester. Finance 370 and 370H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Senior standing; Finance 357H and 367 (or 367Q); credit or registration for one of the following: Accounting 353J, 366P; Business Administration 353, 353H, Finance 353, 366P; Management 347P, 353, 366P, 367P, 369P; Management Information Systems 353, 366P; Marketing 353, 366P; Operations Management 353, or 366P; and three additional semester hours of coursework in finance or real estate.

#### **FIN 371M. Money and Capital Markets.**

Restricted to students in a business major. Development of modern financial markets, with emphasis on the factors that determine interest rates; institutional characteristics and pricing mechanisms of various interest-sensitive securities. Three lecture hours a week for one semester. Prerequisite: Finance 357 or 357H.

#### **FIN 172, 272, 372. Advanced Topics in Finance.**

Restricted to students in a business major. Advanced topics in finance. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Credit or registration for Finance 357 or 357H; additional prerequisites may vary with the topic.

**Topic 1: Environmental, Social, and Governance Investing.** A critical assessment of the actions of investors and corporations with regard to environmental, social, and governance policies, including the potential motivations and resulting consequences. Finance 372 (Topic: Environmental, Social, and Governance Investing) and 172 (Topic 1), 272 (Topic 1), 372 (Topic 1) may not both be counted. Additional prerequisite: Credit or registration for Finance 367.

**Topic 2: Valuation of Energy Investment.** Restricted to business majors. Explores the evaluation and financing of energy investments with a focus on upstream oil and gas projects. Emphasis on developing financial modeling skills, from detailed discounted cash flow models to advanced option pricing models, using various computational approaches. Three lecture hours a week for one semester. Finance 372 (Topic: Valuation of Energy Investment) and 172 (Topic 2), 272 (Topic 2), 372 (Topic 2) may not both be counted. Additional prerequisite: Finance 374C.

**Topic 3: Financial Planning for Wealth Management.** Introduction to basic concepts of personal wealth management and financial planning, including insurance and risk management, investment management, tax planning, estate planning and retirement planning. Designed for upper-level finance and accounting majors interested in a career in financial services or students pursuing master in professional accounting with interest in this area of the accounting profession. Only one of the following may be counted: Accounting 378

(Topic: Financial Planning for Wealth Management), 178 (Topic 3), 278 (Topic 3), 378 (Topic 3), 180K (Topic 24), 280K (Topic 24), 380K (Topic 24), Finance 172 (Topic 3), 272 (Topic 3), 372 (Topic 3), 377 (Topic: Financial Planning for Wealth Management). Additional prerequisite: Accounting 311 or 311H, and 312 or 312H, with a grade of at least C- in each; credit or registration for Accounting 364 is recommended.

**Topic 5: Financial Technology.** Restricted to business majors. Explore an overview of the most recent technological advances that are changing the financial services industry and how these technological breakthroughs offer new ways for people to save, invest, borrow, and transact. Analyze how new technologies create value in the financial industry, from reducing unit cost, increasing transparency, increasing competition, creating network effects, leveraging economies of scales, and lowering asymmetric information. Examine the competitive landscape and the market opportunities and threats for incumbents and new entrants. Only one of the following may be counted: Finance 372 (Topic: Financial Technology), 372 (Topic 5), Business Analytics 372 (Topic 5).

**Topic 6: Optimization Method in Finance.** Explores quantitative methods and techniques in optimization and simulation, and their use in financial decision making. Discusses theory and application in portfolio selection, options and other derivative pricing, index tracking, risk measures, volatility estimating. Specific subjects will include linear, quadratic, nonlinear, and integer programming; dynamic programming; robust optimization; Monte Carlo methods and variance reduction techniques. Emphasis will be placed on problem solving with advanced computational programming languages. Only one of the following may be counted: Finance 372 (Topic: Optimization Method in Finance), 372 (Topic 6), Statistics 372 (Topic 6), Business Analytics 372 (Topic 6), Decision Science 372 (Topic 6).

**Topic 10: Economic Principles of Managerial Decisions.** Using game theory to make sound strategic decisions and gain a competitive advantage. Subjects include strategic pricing, contracting, market entry, and network competition. Only one of the following may be counted: Economics 330T (Topic: Economic Principles of Managerial Decisions), 350K (Topic: Economic Principles of Managerial Decisions), 351N, Finance 372 (Topic: Economic Principles of Managerial Decisions), 172 (Topic 10), 272 (Topic 10), 372 (Topic 10).

**Topic 18: Corporate Finance Fellows.** Restricted to students admitted to the Corporate Finance Fellows program. Practicum in the application of finance tools and methods to corporate finance problems. Finance 372 (Topic: Corporate Finance Fellows) and 172, 272, 372 (Topic 18) may not both be counted. Additional prerequisite: Consent of instructor.

### **FIN 373. Research Topics in Finance.**

Restricted to students in a business major. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Finance 357 or 357H, and consent of instructor.

**Topic 1: Advanced Studies in International Finance.** Students work in small research groups to write academic papers on topics in international finance and business. Designed to develop critical thinking skills, writing skills, sophisticated use of technology, and experience working across different cultures.

### **FIN 374C. Valuation.**

Restricted to students in a business major. An in-depth study of theory and practice of corporate financial management in establishing major financial and investment policies; techniques for analysis, evaluation, and control. Three lecture hours a week for one semester. Prerequisite: Finance 357 or 357H.

### **FIN 374S. Entrepreneurial Finance.**

Restricted to students in a business major. Development, implementation, and control of financial plans, strategies, and policies by owner-managers of small and medium-sized firms; analysis of alternatives and decision making. Three lecture hours a week for one semester. Prerequisite: Finance 357 or 357H.

### **FIN 375F. Banking and Financial Intermediation.**

Restricted to students in a business major. Theory of financial intermediation, regulatory environment, interest rates, and asset/liability management with a focus on commercial banking; depository and contractual intermediation. Three lecture hours a week for one semester. Prerequisite: Finance 357 or 357H.

### **FIN 376. International Finance.**

Same as International Business 376. Restricted to students in a business major. Explore the international financial environment, with emphasis on the factors affecting exchange rates and how exchange rate changes affect the firm. Three lecture hours a week for one semester. Finance 376 and International Business 376 may not both be counted. Prerequisite: Finance 357 or 357H.

### **FIN 377. Advanced Investment Analysis.**

Second course in investments, with emphasis on quantitative applications and the underlying theory in the analysis and management of securities and portfolios. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Finance 357 or 357H; additional prerequisites vary with the topic.

**Topic 1: Portfolio Analysis and Management.** Restricted to students in a business major. Additional prerequisite: Finance 367 or 367Q.

**Topic 2: Financial Risk Management.** Restricted to students in a business major. Finance 377 (Topic 2) and 377 (Topic 5: Energy Financial Risk Management) may not both be counted. Additional prerequisite: Finance 367 or 367Q.

**Topic 3: Security Analysis.** Restricted to students accepted to the Financial Analyst Program. Additional prerequisite: Credit or registration for Finance 367 or 367Q, and consent of instructor.

**Topic 4: Financial Analysis.** Restricted to students in a business major. Application of fundamental analysis and valuation techniques. Additional prerequisite: Credit or registration for Finance 367 or 367Q.

**Topic 5: Energy Financial Risk Management.** Restricted to students in a business major. Finance 377 (Topic 2: Financial Risk Management) and 377 (Topic 5) may not both be counted. Additional prerequisite: Finance 367 or 367Q.

**Topic 6: Fixed Income Analysis.** Restricted to students in a business major. Explore the role of fixed income securities, and methods of economic and financial analysis relevant to their markets. Finance 377 (Topic: Fixed Income Analysis) and 377 (Topic 6) may not both be counted. Additional prerequisite: Credit or registration for Finance 367 (or 367Q).

**Topic 7: Security Market Policy.** Restricted to students in a business major. Analyze current developments in financial market innovation and regulation to understand their effects on capital creation, investor welfare, market efficiency, and financial stability. Explore new financial products, securities fraud and misconduct, shadow banking, technological disruptions, market failures, systemic risk, and policy trade-offs in securities markets regulation. Finance 377 (Topic: Security Market Policy) and 377 (Topic 3) may not both be counted. Additional prerequisite: Upper-division standing; Finance 367 or 367Q.

### **FIN 377L. Portfolio Analysis and Management.**

Restricted to students in a business major. An exploration of quantitative applications and the underlying theory in the analysis and management of securities and portfolios; designed for students with career goals in

investment. Three lecture hours a week for one semester. Prerequisite: Finance 367 or 367Q.

### **FIN 179C, 379C. Independent Research in Finance.**

Restricted to students in a business major. Conference course. Only one of the following may be counted: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upper-division; Finance 357 or 357H with a grade of at least C-; and consent of instructor. A student registering for this course must obtain written approval from the department chair's office, on forms provided for that purpose, before the first meeting of the course.

## **Graduate Courses**

### **FIN 286, 386. Valuation.**

Study of subjects such as financial modeling, derivatives in corporate finance, business valuation, and value-based management. For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Graduate standing and Business Administration 285T or 385T.

### **FIN 286C. Valuation for Executives.**

Restricted to students in the Executive MBA Program. Explore debt and equity valuation, financial markets, firms' cost of capital, and capital structure decisions in greater detail. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **FIN 290, 390. Seminar: Money and Capital Markets.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, Business Administration 285T or 385T, Finance 286, and credit or registration for Finance 394 (Topic 1: Advanced Corporate Finance) and 397 (Topic 1: Investment Theory and Practice).

**Topic 1: Financial Markets and Institutions.** How financial markets are organized and function. Includes debt equity and foreign exchange markets, primary and secondary market operations, and investment banking.

**Topic 2: Special Topics in Capital Markets and Financial Institutions.** Study of issues and topics in the capital markets and financial institutions that are not covered in other courses.

### **FIN 294, 394. Seminar: Financial Management and Theory.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Business Administration 285T or 385T.

**Topic 1: Advanced Corporate Finance.** Advanced corporate financial management in the global marketplace: valuation concepts, optimal capital structure, risk management, corporate control and restructuring, and mergers and acquisitions. Additional prerequisite: Credit or registration for Finance 286.

**Topic 2: Financial Strategies.** An integrated analysis of the interaction between the investment and operating policies of a corporation and its financial strategies. Additional prerequisite: Finance 286, 394 (Topic 1), and credit or registration for Finance 397 (Topic 1: Investment Theory and Practice).

**Topic 3: Global Finance.** Additional prerequisite: Finance 286, 394 (Topic 1), and 397 (Topic 1: Investment Theory and Practice).

**Topic 4: Financial Management of Small Business.** Additional prerequisite: Finance 286.

**Topic 5: Financial Technology.** Analyzes the effect technology has on the delivery of financial services and products in the areas of lending, clearing and trading. Finance 294 (Topic: FINANCIAL TECHNOLOGY) and 294, 394 (Topic 5) may not both be counted.

**Topic 6: Special Topics in Corporate Finance.**

**Topic 7: Raising Capital.** An analysis of the decision to raise capital, including sources of debt and equity, financial distress, restructuring, and financing acquisitions. Prerequisite: Finance 286, 394 (Topic 1), and credit or registration for Finance 397 (Topic 1).

**Topic 8: Financial Strategies for Energy Firms.** An integrated analysis of the interaction between the investment and operating policies of a corporation and its financial strategies, with special emphasis on firms in the energy industry. Prerequisite: Finance 286, 394 (Topic 1), and credit or registration for Finance 397 (Topic 1).

**Topic 9: Advanced Valuation and Financial Modeling for Energy Firms.** Construction and use of financial models for valuation and decision-making, with applications to the energy industry. Prerequisite: Finance 286, 394 (Topic 1), and 397 (Topic 1).

**Topic 10: New Venture Finance.** Explore the process to building a new venture from idea to liquidation event from the perspectives of both the founders as well as sophisticated venture investors. Develop a common financial framework to parse financial instruments through which we can demonstrate the salient points of a new venture's value proposition to its stakeholders. Use this framework to scale the model to express managerial controls, confidence, and ultimately the core values such that the founding team could reasonably expect to raise sophisticated capital. Finance 394 (Topic: New Venture Finance) and 294, 394 (Topic 10) may not both be counted.

**Topic 11: Private Equity.** An examination of the application of advanced corporate finance concepts in the private equity markets. Additional prerequisite: Finance 286, 394 (Topic 1: Advanced Corporate Finance), and credit or registration for Finance 397 (Topic 1: Investment Theory and Practice).

**Topic 12: Energy Development and Corporate Strategies.** Introduction to the legal, engineering, business, and financial aspects of energy development and operations. Additional prerequisite: Finance 286 and credit or registration for Finance 394 (Topic 1: Advanced Corporate Finance).

**Topic 13: Valuation of Energy Investments.** Covers the theory and practice of the evaluation and financing of energy investments with a focus on application to upstream oil and gas projects. Develop financial modeling skills, from detailed discounted cash flow models to advanced option pricing models utilizing a variety of computational approaches. Finance 294 (Topic: VALUATION OF ENERGY INVESTMENTS) and 294, 394 (Topic 13) may not both be counted. Additional prerequisite: Finance 286.

**Topic 14: Venture Capital Fellows Program.** Additional prerequisite: Credit or registration for Finance 286 and 394 (Topic 1).

**Topic 15: Energy Finance Practicum.** Additional prerequisite: Credit or registration for Finance 286.

**Topic 16: Corporate Finance and Financial Markets.** Restricted to students admitted to the McCombs School of Business.

**Topic 17: Advanced Valuation and Financial Modeling.** Construction and use of financial models for valuation and decision-making. Additional prerequisite: Finance 286, 394 (Topic 1: Advanced Corporate Finance), and 397 (Topic 1: Investment Theory and Practice).

**Topic 18: Corporate Finance Fellows I.** Restricted to students admitted to the Corporate Finance Fellows program. Only one of the following may be counted: Finance 394 (Topic: Corporate Finance Fellows), 294 (Topic 18), 394 (Topic 18).

**Topic 19: Economic Principles of Managerial Decisions.** Study of how economic principles are used to think strategically about business

decisions. Only one of the following may be counted: Finance 394 (Topic: Economic Principals of Managerial Decision), 294 (Topic 19), 394 (Topic 19).

**Topic 20: Corporate Finance Fellows II.** Restricted to students admitted to the Corporate Finance Fellows program.

### **FIN 395. Finance Doctoral Seminar.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Fundamentals of Financial Theory.** An overview of finance theory and empirical evidence.

**Topic 2: Uncertainty in Economics and Finance.** The notions of risk, risk aversion, prudence, arbitrage, and equilibria in economies that include financial markets. The impact of adverse selection and moral hazard problems on the existence and properties of market equilibria.

**Topic 3: Asset Pricing Theory.** Detailed introduction to asset pricing theory, focusing on absence of arbitrage, consumption-portfolio choice, and simple equilibrium models.

**Topic 4: Empirical Methods in Asset Pricing.** In-depth study of existing empirical work in asset pricing, including econometric and statistical methods.

**Topic 5: Corporate Finance.** Analysis of the theory of corporate finance and empirical evidence regarding corporate finance.

**Topic 6: Current Research Topics in Finance.** Restricted to doctoral students in finance.

**Topic 7: Summer Research Topics.** Restricted to doctoral students in finance. Provides an opportunity for students to develop and conduct original research projects.

**Topic 8: Special Topics in Finance Theory.**

**Topic 9: Applied Finance Research.** Restricted to doctoral students in finance. Provides an opportunity for students to develop and conduct original research.

**Topic 10: Empirical Methods in Corporate Finance.** Restricted to doctoral students. In-depth study of existing empirical work in corporate finance, including econometric and statistical methods.

### **FIN 297, 397. Seminar: Investment Theory and Management.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Business Administration 285T or 385T.

**Topic 1: Investment Theory and Practice.** Analysis of the investment decision-making process, asset allocation, security analysis, risk and expected return measurement, asset-pricing models, and international investment. Additional prerequisite: Credit or registration for Finance 286.

**Topic 2: Portfolio Management and Security Analysis.** Modern practices in managing investment portfolios, portfolio optimization methods, asset management for individual and institutional investors, and valuation of equity securities. Additional prerequisite: Finance 286 and 397 (Topic 1), and credit or registration for Finance 394 (Topic 1: Advanced Corporate Finance).

**Topic 4: Financial Risk Management.** Studies how firms manage their financial risk exposures and how they use derivative securities. Additional prerequisite: Finance 286 and 397 (Topic 1), and credit or registration for Finance 394 (Topic 1: Advanced Corporate Finance).

**Topic 5: Fixed Income Analysis.** Comprehensive analysis of debt securities and the techniques used to value these instruments. Additional prerequisite: Finance 286 and 397 (Topic 1), and credit or registration for Finance 394 (Topic 1: Advanced Corporate Finance).

**Topic 6: Special Topics in Investments.** Issues and topics in the investment area that are not covered in other courses. Additional prerequisite: Finance 286 and 397 (Topic 1), and credit or registration for Finance 394 (Topic 1: Advanced Corporate Finance).

**Topic 7: Derivative Securities.** Analysis and pricing of derivative securities, including forwards, futures, and options. Prerequisite: Finance 286 and 397 (Topic 1).

**Topic 8: Energy Derivatives.** Analysis and pricing of derivative securities, including forwards, futures, and options, with emphasis on derivatives related to the energy industry. Prerequisite: Finance 286 and 397 (Topic 1).

**Topic 9: Alternative Investments.** Overview of alternative investments, including hedge funds, private equity, and real estate. Prerequisite: Finance 286 and 397 (Topic 1).

**Topic 10: Environmental, Social, and Governance Investing.** A critical assessment of the actions of investors and corporations with regard to environmental, social, and governance policies, including the potential motivations and resulting consequences. Finance 397 (Topic: ENVIR/SOCIAL/GOV INVESTING ) and Finance 297, 397 (Topic 10) may not both be counted.

**Topic 11: Quantitative Trading Strategies.** Examine statistical analyses that can be used in a variety of application areas, including energy trading, and provide a cutting edge perspective on technical trading and valuation.

### **FIN 297P, 397P. Investments Practicum.**

Project-based study with a focus on the application of finance principles to practical investment problems. For 297P, at least twelve lecture hours and forty-eight hours of project work scheduled throughout the semester. For 397P, at least fifteen lecture hours and sixty hours of project work scheduled throughout the semester. Prerequisite: Graduate standing.

### **FIN 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in finance and consent of the graduate adviser; for 698B, Finance 698A.

### **FIN 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in finance and consent of the supervising faculty member and the graduate adviser.

### **FIN 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

## **Fine Arts Courses**

### **Fine Arts: F A**

#### **Lower-Division Courses**

##### **F A 103. Introduction to Teaching Fine Arts.**

Explores concepts in teaching art, dance, music, or theatre in Texas public schools. One lecture hour a week for one semester. Students enrolled in UTeach Fine Arts may not count this course towards their degree. Offered on the pass/fail basis only. Prerequisite: For non-College of Fine Arts students, consent of department.

##### **F A 105, 205, 305. Fine Arts Success Seminar.**

Designed for first-year College of Fine Arts undergraduates. Explore college success and personal and professional growth in a creative context. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Offered on the pass/fail basis only.

### **F A 005C. Success Seminar.**

Build community and get an in-depth student support experience via academic support, community building, professional development, and general student advocacy related subjects. May be repeated for credit. Offered on the pass/fail basis only.

### **F A 308. Arts Integrations for Multidisciplinary Connections.**

Same as Theatre and Dance 302S. Through readings, videos, in-class activities, discussion, field trips, micro-teaching, and written reflection, designed to develop a practical understanding of the techniques and skills associated with integrating the arts into various contexts. Provides experience in each art content area (dance, music, theatre arts, and visual arts) to develop an introductory understanding of each of these disciplines. Three lecture hours a week for one semester. Fine Arts 308 and Theatre and Dance 302S may not both be counted. Offered on the letter-grade basis only.

### **F A 110, 210, 310 (TCCN: HUMA 1315). Topics in the Fine Arts.**

Interdisciplinary studies within the fine arts or including the fine arts and other areas. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit when the topics vary.

### **F A 313C. Engaging with the Arts from the Audience.**

An introduction to gaining more from engaging with live artistic performance through learning new tools and techniques, meeting artists and attending performances from Texas Performing Arts. Three lecture hours a week for one semester.

### **F A 119, 219, 319, 419, 519, 619. International Learning Seminars.**

Restricted to students participating in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of completing work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Fine Arts 119, 219, 319, 419, 519, 619 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **F A 119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, 919Q. Topics in Fine Arts.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Fine Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **F A 320. Exploring the Fine Arts.**

Restricted to non-College of Fine Arts students. An interdisciplinary introduction to the fine arts: their basic concepts, meaning, aesthetics, and role in society. Three lecture hours a week for one semester, with field trips as required. May not be counted toward a degree in the College of Fine Arts. Prerequisite: Upper-division standing.

### **F A 129, 229, 329, 429, 529, 629. International Learning Seminars.**

Restricted to students participating in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of completing work in international locations. For

each semester hour of credit earned, one lecture hour a week for one semester. Fine Arts 129, 229, 329, 429, 529, 629 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **F A 129Q, 229Q, 329Q, 429Q, 529Q, 629Q, 729Q, 829Q, 929Q. Topics in Fine Arts.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the College of Fine Arts. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **F A 140, 240, 340, 640, 940. Fine Arts Internship.**

Restricted to students in the College of Fine Arts. Designed to establish the academic foundations of an internship course in the fine arts. Integration of knowledge derived from academic studies compiled with the experiences gained in an internship setting. Requires completion of a minimum of fifty hours of satisfactory on-site work per credit hour earned. Internship hours to be arranged. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.50; and consent of instructor.

### **F A 345. Leadership and Urban Engagement.**

Same as Communication 340, Liberal Arts 340, and Management 340. Restricted to students accepted to the UT in New York Program. Explore leadership skills and goals in the urban context. Read and discuss leadership challenges that arise when stakeholders come together to plan, make decisions, and take action in organizational and community settings. Three lecture hours a week for one semester. Only one of the following may be counted: Communication 340, Fine Arts 345, Liberal Arts 325 (Topic: Leadership/Urban Engagement), 340, Management 340. Prerequisite: Upper-division standing.

### **F A 150, 250, 350. Special Topics in the Fine Arts.**

Special interdisciplinary studies within the fine arts or including the fine arts and other areas. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Managing Performing Arts Organizations.** Restricted to students in the College of Fine Arts; other students may contact the department for permission to register for this class. Focuses on the business aspect of performing arts and, in particular, nonprofit, mission-based arts organizations with an emphasis on organizational structure; budget development and management; strategic planning; trustee development; trustee/staff relations; fundraising; marketing and publicity; audience development, development of outreach programming; box-office management; operations and human resources; and collective bargaining agreements/labor relations, and contract negotiation. Fine Arts 150, 250, 350 (Topic: Managing Performing Arts Organizations) and 150, 250, 350 (Topic 1) may not both be counted.

### **F A 160, 260, 360. Advanced Topics in the Fine Arts.**

Advanced interdisciplinary studies within the fine arts or including the fine arts and other areas. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### **F A 362. Foundations of Arts Management.**

Restricted to students who are pursuing the Minor in Arts Management and Administration or students in the College of Fine Arts. Overview of issues in the management of contemporary arts organizations in both internal functions and relations with external constituencies. Explores organizational creation, leadership, mission development, funding, audience development, evaluation, community relations, and the policy environment. Three lecture hours a week for one semester. Only one of the following may be counted: Fine Arts 362, 381 (Topic: Foundations of Arts Management), 383. Offered on the letter-grade basis only.

### **F A 363. Arts Entrepreneurship and New Venture Creation.**

Introduction to arts entrepreneurship with particular attention to the creation of new ventures. Focus on the process of generating and refining ideas for creating new enterprises, and key components and formulation of a business plan. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **F A 364. Developing and Reaching Audiences.**

Focus on central issues faced by arts and organizations with respect to audience development and engagement. Explores different models and techniques adopted by organizations with respect to audience and community engagement, and fundamentals of marketing for arts organizations. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **F A 365. Fundraising in the Arts.**

Survey of strategies involved in generating contributed income for arts organizations from private individuals, foundations, corporations, businesses and government agencies, and focus on how the process is related to marketing tickets to the same patrons. Three lecture hours a week for one semester. Only one of the following may be counted: Fine Arts 365, 381 (Topic: Fundraising in the Arts), 385. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **F A 366. Managing Arts Organizations.**

Focuses on the business aspect of managing arts with emphasis on non-profit, mission-based, performing, and visual arts organizations. Explores organizational structure and development, budget development and management, strategic planning, trustee development, trustee/staff relations, fundraising, marketing and publicity, audience development, development of community engagement programming, ticketing and admission management, operations, human resources, collective bargaining/labor relations, and contract negotiation. Three lecture hours a week for one semester. Only one of the following may be counted: Fine Arts 366, 381 (Topic 1: Managing Performing Arts Organizations), 381 (Topic: Managing Performing Arts Organizations), 386. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **F A 367. Philanthropy and Arts Organizations.**

Examines sources, characteristics, and consequences of cultural philanthropy in the United States. Explores practical implications of how private philanthropy works for those engaged in seeking and awarding support. Focus on select exercises and cases to translate broad themes to practical issues related to formulating and implementing strategies for seeking resources and supporting arts and culture. Three lecture hours a week for one semester. Only one of the following may be counted: Fine Arts 367, 381 (Topic 2: Philanthropy And The Arts), 381 (Topic: Philanthropy And The Arts), 387. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, or consent of instructor.

### **F A 368. Cultural Policy and Participation.**

Examines governmental and private policies, and structures that impact cultural production and participation. Considers rationales for and

against public support for culture, how policies have both promoted and impeded cultural producers and consumers, advocacy efforts by organizations in the cultural sector, and relations between governmental policy and private initiative. Three lecture hours a week for one semester. Only one of the following may be counted: Fine Arts 368, 381 (Topic: Cultural Policy and Participation), 388. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **F A 369. The Entrepreneurial Artist.**

Same as Arts and Entertainment Technologies 367. Exploration of new modes of online and social arts marketing and self promotion. Use of established models to create materials and prototype marketing resources. Three lecture hours a week for one semester. Only one of the following may be counted: Arts and Entertainment Technologies 367, Fine Arts 360 (Topic: The Entrepreneurial Artist), Fine Arts 369. Offered on the letter-grade basis only.

### **F A 170, 270, 370. Longhorn Startup Seminar.**

Focus on skill development and mentoring in start-up formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Includes discussion of intellectual property, social issues in design, as well as ethical and safety considerations. Emphasis on written and oral presentation of start-up activities. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Biomedical Engineering 177T, 277T, 377T (Topic: Longhorn Startup Seminar), Computer Science 178, 378 (Topic: Longhorn Startup Seminar), Engineering Studies 177, 277, 377 (Topic: Longhorn Startup Seminar), 177, 277, 377 (Topic 1), Fine Arts 160, 260, 360 (Topic: Longhorn Startup Seminar), 170, 270, 370, Management 137, 237, 337 (Topic: Longhorn Startup Seminar), Communication 125, 225, 325 (Topic: Longhorn Startup Seminar). Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

### **F A 171, 271, 371. Special Topics in Arts Management and Administration.**

Focused and in-depth study of selected topics in the management and administration of artistic ventures in the commercial, not-for-profit, and/or public sectors. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

**Topic 1: Subjects in Arts Management.** Focused and in-depth study of selected subjects in the management of artistic ventures in the commercial, not-for-profit, and/or public sectors. Offered on the letter-grade basis only.

**Topic 2: Subjects in Arts Administration.** Focused and in-depth study of selected subjects in the administration of artistic ventures in the commercial, not-for-profit, and/or public sectors. Offered on the letter-grade basis only.

### **F A 175, 375, 675. Independent Studies: Art, Drama, or Music.**

Independent study or research within the fine arts or between the fine arts and other disciplines. Individual instruction. May be repeated for credit. Prerequisite: Upper-division standing, a grade point average of at least 3.00, consent of instructor, and consent of the dean of the College of Fine Arts.

## **Graduate Courses**

### **F A 381. The Arts.**

Topics within the fine arts, or including the fine arts and other areas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **F A 382. Independent Studies: Art, Drama, or Music.**

Study or research in art, drama, or music, or among these areas, or between these areas and other disciplines. Individual instruction. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and of the dean of the College of Fine Arts.

### **F A 383. Foundations of Arts Management.**

Overview of issues in the management of contemporary arts organizations in both internal functions and relations with external constituencies. Explores organizational creation, leadership, mission development, funding, audience development, evaluation, community relations, and the policy environment. Three lecture hours a week for one semester. Only one of the following may be counted: Fine Arts 362, 381 (Topic: Foundations of Arts Management), 383. Prerequisite: Graduate standing.

### **F A 184, 284, 384. Graduate Fine Arts Internship.**

Restricted to students in the College of Fine Arts. Designed to establish the academic foundations of an internship course in the fine arts. Integration of knowledge derived from academic studies will combine with the experiences gained in an internship setting. Requires completion of a minimum of fifty hours of satisfactory on-site work per credit hour earned. A minimum of fifty hours of satisfactory on-site work per credit hour earned. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing, a University grade point average of at least 2.50, and consent of instructor.

### **F A 385. Fundraising in the Arts.**

Survey of strategies involved in generating contributed income for arts organizations from private individuals, foundations, corporations, businesses and government agencies, and focus on how the process is related to marketing tickets to the same patrons. Three lecture hours a week for one semester. Only one of the following may be counted: Fine Arts 365, 381 (Topic: Fundraising in the Arts), 385. Prerequisite: Graduate standing.

### **F A 386. Managing Arts Organizations.**

Focuses on the business aspect of managing arts with emphasis on non-profit, mission-based, performing, and visual arts organizations. Explores organizational structure and development, budget development and management, strategic planning, trustee development, trustee/staff relations, fundraising, marketing and publicity, audience development, development of community engagement programming, ticketing and admission management, operations, human resources, collective bargaining/labor relations, and contract negotiation. Three lecture hours a week for one semester. Only one of the following may be counted: Fine Arts 366, 381 (Topic 1: Managing Performing Arts Organizations), 381 (Topic: Managing Performing Arts Organizations), 386. Prerequisite: Graduate standing.

### **F A 387. Philanthropy and Arts Organizations.**

Examines sources, characteristics, and consequences of cultural philanthropy in the United States. Explores practical implications of how private philanthropy works for those engaged in seeking and awarding support. Focus on select exercises and cases to translate broad themes to practical issues related to formulating and implementing strategies for seeking resources and supporting arts and culture. Three lecture hours a week for one semester. Only one of the following may be counted: Fine Arts 367, 381 (Topic 2: Philanthropy And The Arts), 381 (Topic: Philanthropy And The Arts), 387. Prerequisite: Graduate standing.

### **F A 388. Cultural Policy and Participation.**

Examines governmental and private policies, and structures that impact cultural production and participation. Considers rationales for and against public support for culture, how policies have both promoted

and impeded cultural producers and consumers, advocacy efforts by organizations in the cultural sector, and relations between governmental policy and private initiative. Three lecture hours a week for one semester. Only one of the following may be counted: Fine Arts 368, 381 (Topic: Cultural Policy and Participation), 388. Prerequisite: Graduate standing.

## **Professional Courses**

# **Foreign Language Education Courses**

## **Foreign Language Education: FLE**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **FLE 397P. Internship.**

Internship in teaching English as a second or foreign language. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in foreign language education and consent of the graduate adviser.

#### **FLE 197V, 297V, 397V. Conference Course.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be taken five times for credit. May be repeated for credit. Prerequisite: Graduate standing in foreign language education and consent of graduate adviser.

#### **FLE 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in foreign language education, admission to a field of specialization, completion of nine semester hours of coursework toward the degree, and consent of the graduate adviser; for 698B, Foreign Language Education 698A.

#### **FLE 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in foreign language education, completion of nine semester hours of coursework to be counted toward the degree, and admission to a field of specialization.

#### **FLE 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **French Civilization Courses**

## **French Civilization: F C**

### **Lower-Division Courses**

#### **F C 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in French Civilization.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken

in residence. Transfer credit is awarded for work in an affiliated study program. May be repeated for credit when the topics vary.

## Upper-Division Courses

### F C 320. The French Heritage.

Introduction to French civilization: architecture, painting, music, and social and political history. Given in English; requires no knowledge of French. Three lecture hours a week for one semester. May not be counted toward a major or minor in French. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upper-division standing.

### F C 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in French Civilization.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### F C 336. Vamps, Stars, and The Diva.

Same as European Studies 347 (Topic 50) and Italian Civilization 336. Examine French and Italian films through the lens of stardom. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Vamps, Stars, and The Diva), 347 (Topic 50), French Civilization 336, 345 (Topic: Vamps, Stars, and The Diva), Italian Civilization 336, 349 (Topic: Vamps, Stars, and The Diva), Women's and Gender Studies 345 (Topic: Vamps, Stars, and The Diva). Prerequisite: Upper-division standing.

### F C 339. The Development of the French Film.

Films in French, with subtitles in English; lectures in English. Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. English 322 (Topic 20: The Development of the French Film) and French Civilization 339 may not both be counted. Prerequisite: Upper-division standing.

### F C 340M. Continuity and Change in Modern France.

Same as European Studies 340M. Focuses on various social, political, and cultural crises in France from the revolution of 1789 to the present time. Three lecture hours a week for one semester. European Studies 340M and French Civilization 340M may not both be counted. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upper-division standing.

### F C 341. Topics in French Studies.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### F C 342. French Through Coding.

Three lecture hours a week for one semester. Prerequisite: French 322E with a grade of at least C.

## Graduate Courses

## Professional Courses

# French Courses

## French: FR

### Lower-Division Courses

#### FR 301. French for Graduate Students in Other Departments.

No auditors permitted. Intensive reading course for graduate students, emphasizing basic grammar and vocabulary with translation practice. Three lecture hours a week for one semester. The symbol CR fulfills the foreign language requirement for the Doctor of Philosophy degree in some departments. May not be used to fulfill the foreign language requirement for any bachelor's degree. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

#### FR 601C. Beginning French.

An intensive beginning course with an emphasis on basic skills: listening, speaking, reading, and writing. Six lecture hours a week for one semester. Only one of the following may be counted: French 601C, 604, 406, 506. Only one of the following may be counted: French 601C, 604, 407, 507, 508K.

#### FR 604. Accelerated First-Year French.

Designed for students of high motivation. A six-hour course comparable to French 506 and 507. Six lecture hours a week for one semester. Only one of the following may be counted: French 601C, 604, 406, 506. Only one of the following may be counted: French 601C, 604, 407, 507, 508K.

#### FR 406, 506. Introductory French I.

Emphasis on basic skills: listening, speaking, reading, and writing at the novice level of proficiency. Designed for students with no prior coursework in French. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: French 601C, 604, 406, 506.

#### FR 407, 507. Introductory French II.

Emphasis on basic skills: listening, speaking, reading, and writing at the novice to intermediate levels of proficiency. Designed novice level proficiency and prior French coursework. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: French 601C, 604, 407, 507, 508K. Prerequisite: French 406 with a grade of at least C.

#### FR 508K. Alternate First-Year French II.

An accelerated review of material covered in French 506, followed by study of new material covered in French 507. Five lecture hours a week for one semester. Only one of the following may be counted: French 601C, 604, 407, 507, 508K. Prerequisite: Transfer credit or credit by examination for French 506; or credit for French 506 earned at the University more than one calendar year prior to registering, with a grade of at least C.

#### FR 611C. Intermediate French.

An intensive intermediate course with emphasis on basic skills: listening, speaking, reading, and writing. Does not meet the prerequisite requirements for French 320E or 324L. Six lecture hours a week for one semester. Only one of the following may be counted: French 611C, 612, 312K, 412K. Prerequisite: French 601C, 604, 507, or 508K with a grade of at least C.

#### FR 612. Accelerated Second-Year French: Four Skills.

Designed for students of high motivation. A six-hour course comparable to French 312K and 312L combined. Six lecture hours a week for one semester. French 612 and 312L may not both be counted. Only one of the

following may be counted: French 611C, 612, 312K, 412K. Prerequisite: French 604, 507, or 508K with a grade of at least C.

### **FR 312K, 412K. Intermediate French I.**

Emphasis on basic skills: listening, speaking, reading, and writing at the Intermediate level of proficiency. Designed for students with Novice level proficiency and a prior beginning French course. For each semester hour of credit earned, one lecture hour a week. Only one of the following may be counted: French 611C, 612, 312K, 412K. Prerequisite: French 407 or 507 with a grade of at least C.

### **FR 312L (TCCN: FREN 2312). Second-Year French II: Four Skills.**

Listening, speaking, reading, and writing at the advanced, second-year level. Three lecture hours a week for one semester. French 612 and 312L may not both be counted. Prerequisite: French 312K with a grade of at least C.

### **FR 317C. Enhancing French Skills.**

Listening, speaking, reading, and writing course designed to provide additional preparation for upper-division French courses. Three lecture hours a week for one semester. Prerequisite: French 312K or 412K or 611C with a grade of at least C.

### **FR 118L. Practice in Spoken French.**

Designed to be taken concurrently with French 317C. Two lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: French 611C or 312K with a grade of at least C.

### **FR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in French.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **FR 320E. Advanced French I.**

Designed to develop the listening, speaking, reading, and writing skills needed for the analysis of literary and cultural readings in the French-speaking world. Three lecture hours a week for one semester. Prerequisite: French 312L or 317C with a grade of at least C.

### **FR 120M. Advanced Practice in Spoken French I.**

Two lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: French 612, 312L, (312N), or 317C with a grade of at least C.

### **FR 120N. Advanced Practice in Spoken French II.**

Two lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Completion of at least one upper-division French course, or equivalent proficiency.

### **FR 322E. Advanced French II.**

Continuation of French 320E. Designed to develop the listening, speaking, reading, and writing skills needed to analyze literary and cultural readings in the French-speaking world. Three lecture hours a week for one semester. Prerequisite: French 320E with a grade of at least C.

### **FR 324L. Practical Phonetics.**

A thorough review of French phonetics, with emphasis on improving production and understanding of spoken French. Three lecture hours a week for one semester. Prerequisite: French 320E with a grade of at least C.

### **FR 325C. Crisis and Conflict.**

Focus on reading and interpreting texts dealing with historical and social conflicts as manifested in moments of crisis in French or francophone history. Three lecture hours a week for one semester. Prerequisite: French 322E with a grade of at least C.

### **FR 325D. Self and Society.**

Focus on reading and interpreting texts involving confrontations between the narrative "I" and representations of various social groups. Three lecture hours a week for one semester. Prerequisite: French 322E with a grade of at least C.

### **FR 325E. Representing Difference.**

Focus on reading and interpreting texts involving representation of difference (gender, religious, cultural, political, economic, social). Three lecture hours a week for one semester. Prerequisite: French 322E with a grade of at least C.

### **FR 326K. Introduction to French Literature I: From the Middle Ages through the Eighteenth Century.**

Introduction to the reading and analysis of representative texts, with some attention to cultural and historical background. Three lecture hours a week for one semester. Prerequisite: French 320E.

### **FR 326L. Introduction to French Literature II: From the French Revolution to the Present.**

Introduction to the reading and analysis of representative texts, with some attention to cultural and historical background. Three lecture hours a week for one semester. Prerequisite: French 320E.

### **FR 327C. French through Cuisine.**

A refinement of reading, writing, speaking, and listening skills in French through the context of gastronomy. Three lecture hours a week for one semester. Prerequisite: French 320E with a grade of at least C.

### **FR 328C. French through Film.**

A refinement of reading, writing, speaking, and listening skills in French through the context of French and francophone cinema. Three lecture hours a week for one semester. Prerequisite: French 320E with a grade of at least C.

### **FR 329C. French through Music.**

A refinement of reading, writing, speaking, and listening skills in French through the context of French and francophone music. Three lecture hours a week for one semester. Prerequisite: French 320E with a grade of at least C.

### **FR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in French.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **FR 130D. French across Disciplines.**

Students read and discuss French language materials related to the subject matter of another designated course. One lecture hour a week for one semester. Prerequisite: Upper-division standing and three semester hours of upper-division coursework in French.

### **FR 330K. Studies in French Language and Cultures.**

Topics with a focus on language or culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: French 322E.

**Topic 2: French Cuisine.** Study of the language of French gastronomy through readings, literature, and film. Explores French society, history, customs, and attitudes in the gourmet culture of French cuisine with particular emphasis on Lyon and its regional specialties. French 330K (Topic: French Cuisine) and 330K (Topic 2) may not both be counted.

### **FR 340C. The Arts in France.**

A survey of the major artistic styles, modes, and currents in painting, architecture, sculpture, the decorative arts, and costume, from the medieval through the contemporary periods. Three lecture hours a week for one semester. Prerequisite: French 322E.

### **FR 340P. The Making and Identity of France.**

The general political history of France, from the nation's inception to its current existence as part of the European Community. Three lecture hours a week for one semester. Prerequisite: French 322E.

### **FR 340T. France and the Francophone World Today.**

An introduction to life in France and francophone regions through the study of contemporary society and culture. Three lecture hours a week for one semester. Prerequisite: French 322E.

### **FR 342C. French for Business.**

Development of the ability to function in French in business-related situations, both orally and in writing. Three lecture hours a week for one semester. Prerequisite: French 322E.

### **FR 348. French Drama Workshop.**

Intensive analysis of one or several plays or short literary texts, with emphasis on diction, delivery of lines, acting and staging; public performance of one play. Three lecture hours a week for one semester. Prerequisite: French 320E with a grade of at least C.

### **FR 349P. French Internship.**

Provides the opportunity to apply language skills by using French in a professional setting such as a business or agency. Three lecture hours a week for one semester. Prerequisite: French 322E and consent of the department.

### **FR 350F. Francophone Literature and Culture.**

Explore the francophone world through novels, poetry, theater, and film. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and one of the following with a grade of at least C: French 325C, 325D, or 325E.

### **FR 351C. Topics in French Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: French 325C, 325D, 325E, 326K, or 326L.

### **FR 357C. French New Wave in Context.**

Three lecture hours a week for one semester. French 357 (Topic: French New Wave in Context) and 357C may not both be counted. Prerequisite:

Six semester hours of upper-division coursework in French with a grade of at least C.

### **FR 358C. French Cinema and Memory.**

Analyze French films through the lens of memory. Examine themes including the relationship between the cinematic medium and memory, the portrayals of personal memory versus historical memory, and the influence of film on our conception of memory. Three lecture hours a week for one semester. French 358 (Topic: French Cinema and Memory) and 358C may not both be counted. Prerequisite: Six semester hours of upper-division coursework in French with a grade of at least C.

### **FR 358Q. Supervised Research.**

Individual instruction. May be repeated for credit. Prerequisite: French 325C, or 325D, or 325E, or 326K, or 326L.

### **FR 363L. French Through the Media.**

Focus on how the French language is used today to discuss current and cultural topics in the French media. Three lecture hours a week for one semester. French 359 (Topic: French Through the Media) and 363L may not both be counted. Prerequisite: At least six semester hours of upper-division coursework in French.

### **FR 364L. Introduction to French Linguistics.**

Introduction to the syntactic, phonological, morphological, lexical, historical, and applied aspects of French linguistics. Three lecture hours a week for one semester. Prerequisite: At least six semester hours of upper-division coursework in French.

### **FR 165K, 265K, 365K. Conference Course.**

Supervised individual study of selected problems in French language and literature. Prerequisite: French 325C, or 325D, or 325E, or 326K, or 326L.

### **FR 371L. Advanced Written and Oral Composition.**

Designed to guide students toward smooth and effective written and oral expression; weekly compositions on assigned subjects; periodic oral presentations. Three lecture hours a week for one semester. Prerequisite: French 322E.

### **FR 372. Comparative Stylistics.**

Comparison of contemporary French and English syntax and style; study and practice in the technical difficulties of English-to-French and French-to-English translation. Three lecture hours a week for one semester. Prerequisite: French 322E.

### **FR 379H. Honors Tutorial Course.**

Supervised individual research on a literary, linguistic, or cultural topic, and writing and defense of a thesis under the direction of a committee of two faculty members. Conference course. Prerequisite: Admission to the French Honors Program.

## **Graduate Courses**

### **FR 380C. French for Graduate Students in Other Departments.**

No auditors permitted. Intensive reading course, emphasizing basic grammar and vocabulary with translation practice. Three lecture hours a week for one semester. The symbol CR fulfills the foreign language requirement for the Doctor of Philosophy degree in some departments. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **FR 380L. History of the French Language.**

An analysis of the evolution of the French language since its origin. Three lecture hours a week for one semester. Prerequisite: Graduate

standing in French, or graduate standing and six semester hours of upper-division coursework in French.

#### **FR 180P. Introduction to Studies in Literature and Culture.**

Proseminar in methods of study and research in French studies. One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **FR 380R. Reference Works and Research Methodologies.**

Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

#### **FR 381. Old French Language.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing and twelve semester hours of upper-division coursework in French.

#### **FR 381J. Topics in French Studies.**

Designed for students in other departments; taught in English with optional reading in French. Three lecture hours a week for one semester. Graduate students in French may count only one topic toward the degree. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **FR 381M. Critical Approaches to Literature.**

Introduction to various modern approaches to literary criticism, stressing both theory and practical application. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **FR 381N. Studies in Language and Style.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Rhetoric, Composition, and Stylistics.**

**Topic 2: Translation.**

#### **FR 381P. Old Provençal.**

An introduction to Old Provençal through analysis of literary texts. Three lecture hours a week for one semester. Prerequisite: Graduate standing and twelve semester hours of upper-division coursework in French.

#### **FR 382L. Studies in the Civilization of the French-Speaking World.**

Studies in various aspects of the cultures of France, Quebec, Francophone Africa, the French Caribbean, and other areas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **FR 383K. Structure of French: Phonology and Morphology.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing in French, or graduate standing in linguistics and six semester hours of upper-division coursework in French.

#### **FR 383M. Structure of French: Syntax and Semantics.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing in French, or graduate standing in linguistics and six semester hours of upper-division coursework in French.

#### **FR 383N. Introduction to French Linguistics.**

An introductory survey of the main fields of French linguistics: phonology, syntax, sociolinguistics, historical linguistics, and applied linguistics. Three lecture hours a week for one semester. Fulfills linguistics requirement for doctoral candidates in French literature.

May not be counted toward a graduate degree in French linguistics or Romance linguistics. Prerequisite: Graduate standing.

#### **FR 385L. Conference Course in French Language and Literature.**

For students needing specialized courses not normally or not often included in the regular course offerings. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of the graduate adviser.

#### **FR 390K. Studies in French Literature through the Renaissance.**

Intensive study of particular writers or literary movements. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and twelve semester hours of upper-division coursework in French.

#### **FR 390L. Studies in French Literature of the Seventeenth and Eighteenth Centuries.**

Intensive study of particular writers or literary movements. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and twelve semester hours of upper-division coursework in French.

#### **FR 390M. Studies in French Literature from the Nineteenth Century to the Present.**

Intensive study of particular writers or literary movements. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and twelve semester hours of upper-division coursework in French.

#### **FR 390N. Studies in Francophone Literature.**

Studies in the literatures of Quebec, Francophone Africa, the French Caribbean, and other areas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **FR 391K. Studies in Criticism and Literary Genres.**

Intensive study of critical theory or of the evolution of a genre. Topics: *Le Voyage*: themes, genres, structure; French short fiction since 1650; the theatre of the absurd; and others. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and twelve semester hours of upper-division coursework in French.

#### **FR 392K. Studies in French Linguistics.**

Examination of specific issues in theoretical, applied, descriptive, or historical linguistics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and twelve semester hours of upper-division coursework in French.

#### **FR 395L. Comprehensive Examination Preparation.**

Restricted to doctoral students in the Department of French and Italian. Supervised preparation for the comprehensive examination for the doctoral degree. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate Standing, consent of the graduate adviser, and satisfactory completion of all course requirements for the doctoral degree.

#### **FR 396K. Comparative Romance Linguistics.**

General survey of the development of spoken Latin in Italy, Spain, Portugal, and France; main traits of phonology, morphology, and syntax in each modern derivative language. Three lecture hours a week for one

semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in languages and consent of instructor and the graduate adviser.

**Topic 1: Introduction to Romance Linguistics.** Same as Italian 396K (Topic 1: Introduction to Romance Linguistics), Linguistics 383 (Topic 3: Introduction to Romance Linguistics), Portuguese 396K (Topic 2: Introduction to Romance Linguistics), and Spanish 396K (Topic 2: Introduction to Romance Linguistics).

### **FR 197T. Practicum in Teaching College French.**

Designed to train first-year teaching assistants to observe, describe, and evaluate foreign language instruction and testing. Practical aspects of teaching to be studied include organization of class time; treatment of vocabulary and grammar; speaking and pronunciation; listening and reading comprehension; evaluating and creating tests; testing language content and language skills. One lecture hour a week for one semester. Prerequisite: Graduate standing.

### **FR 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in French and consent of the graduate adviser; for 698B, French 698A.

### **FR 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in French and consent of the graduate adviser.

### **FR 398T. Supervised Teaching in French.**

Teaching under the close supervision of the course instructor for two semesters; weekly group meetings with the instructor, individual consultations, and reports throughout the teaching period. Three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant.

### **FR 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **General Engineering Courses**

## **General Engineering: G E**

### **Lower-Division Courses**

#### **G E 102E, 202E. Supplemental Instruction for Electrical Engineering 302.**

Restricted to engineering majors. Development of problem-solving skills in the material covered in Electrical Engineering 302. For each semester hour of credit earned, two hours of supplemental instruction a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Electrical Engineering 302.

#### **G E 104J, 204J. Supplemental Instruction for Mathematics 427J.**

Restricted to engineering majors. Development of problem-solving skills in the material covered in Mathematics 427J. For each semester hour of credit earned, two hours of supplemental instruction a week for one semester. May not be counted toward any engineering degree.

Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Mathematic 427J.

#### **G E 105G. Supplemental Instruction for Mathematics 305G.**

Restricted to engineering majors. Development of problem-solving skills in the material covered in Mathematics 305G. For each semester hour of credit earned, two hours of supplemental instruction a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Mathematic 305G.

#### **G E 106D, 206D. Supplemental Instruction for Chemistry 301.**

Restricted to engineering majors. Development of problem-solving skills in the material covered in Chemistry 301. For each semester hour of credit earned, two hours of supplemental instruction a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Chemistry 301.

#### **G E 106E, 206E. Supplemental Instruction for Chemistry 302.**

Restricted to engineering students. Development of problem-solving skills in the material covered in Chemistry 302. For each semester hour of credit earned, two hours of supplemental instruction a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Chemistry 302.

#### **G E 107C, 207C. Supplemental Instruction for Mathematics 408C.**

Restricted to engineering majors. Development of problem-solving skills in the material covered in Mathematics 408C. For each semester hour of credit earned, two hours of supplemental instruction a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Mathematics 408C.

#### **G E 107D, 207D. Supplemental Instruction for Mathematics 408D.**

Restricted to engineering majors. Development of problem-solving skills in the material covered in Mathematics 408D. For each semester hour of credit earned, two hours of supplemental instruction a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Mathematics 408D.

#### **G E 207E. Supplemental Instruction for Mathematics 340L.**

Restricted to engineering students. Development of problem-solving skills in the material covered in Mathematics 340L. Two two-hour discussion sections a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Mathematics 340L.

#### **G E 207K. Supplemental Instruction for Mathematics 427K.**

Restricted to engineering students. Development of problem-solving skills in the material covered in Mathematics 427K. Two two-hour discussion sections a week for one semester. May not be counted toward any engineering degree. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in Mathematics 427K.

#### **G E 207L. Supplemental Instruction for Mathematics 427L.**

Restricted to engineering students. Development of problem-solving skills in the material covered in Mathematics 427L. Two two-hour discussion sections a week for one semester. May not be counted

toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Mathematics 427L.

#### **G E 207R. Supplemental Instruction for Mathematics 408K.**

Restricted to engineering students. Four lecture hours a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Mathematics 408K.

#### **G E 207S. Supplemental Instruction for Mathematics 408L.**

Restricted to engineering students. Four lecture hours a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Mathematics 408L.

#### **G E 207T. Supplemental Instruction for Mathematics 408M.**

Restricted to engineering students. Four lecture hours a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Mathematics 408M.

#### **G E 108K, 208K. Supplemental Instruction for Physics 303K.**

Restricted to engineering majors. Development of problem-solving skills in the material covered in Physics 303K. For each semester hour of credit earned, two hours of supplemental instruction a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Physics 303K.

#### **G E 108L, 208L. Supplemental Instruction for Physics 303L.**

Restricted to engineering majors. Development of problem-solving skills in the material covered in Physics 303L. For each semester hour of credit earned, two hours of supplemental instruction a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Physics 303L.

#### **G E 209. Supplemental Instruction for Engineering Courses.**

Restricted to engineering students. Development of problem-solving skills in the material covered in selected engineering courses. Two two-hour discussion sections a week for one semester. May not be counted toward any engineering degree. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Varies with the topic.

#### **G E 109C, 209C. Supplemental Instruction for Engineering Mechanics 306.**

Restricted to engineering majors. Development of problem-solving skills in the material covered in Engineering Mechanics 306. For each semester hour of credit earned, two hours of supplemental instruction a week for one semester. May not be counted toward any engineering degree. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Engineering Mechanics 306 and consent of instructor.

#### **G E 109D, 209D. Supplemental Instruction for Engineering Mechanics 319.**

Restricted to engineering majors. Development of problem-solving skills in the material covered in Engineering Mechanics 319. For each semester hour of credit earned, two hours of supplemental instruction a week for one semester. May not be counted toward any engineering degree. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Engineering Mechanics 319 and consent of instructor.

#### **G E 212. Supplemental Instruction for Electrical Engineering 312.**

Restricted to engineering students. Development of problem-solving skills in the material covered in Electrical Engineering 312. Two two-hour discussion sections a week for one semester. May not be counted toward any engineering degree. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Electrical Engineering 312.

#### **G E 119, 219, 319. Topics in Engineering.**

Restricted to engineering students. Topics to supplement lower-division engineering curriculum. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Engineering Studies 119, 219, 319 and General Engineering 119, 219, 319 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Varies with the topic.

### **Upper-Division Courses**

#### **G E 222. Topics in Professional Development.**

Restricted to engineering students. Small-group seminar involving reading, discussion, and oral reports. Two lecture hours a week for one semester. Only one of the following may be counted unless topics vary: Engineering Studies 122, 222, 322, 321G (or 322G), General Engineering 222. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

### **Graduate Courses**

### **Professional Courses**

## **Geography Courses**

### **Geography: GRG**

#### **Lower-Division Courses**

##### **GRG 301C, 401C. The Natural Environment.**

An introduction to the study of the Earth from a holistic perspective including geologic, atmospheric, ecological, and water sciences and its relevance to present-day environmental problems. Three lecture hours and one-and-one-half laboratory hours a week for one semester.

##### **GRG 301K (TCCN: GEOL 1347). Weather and Climate.**

A survey of meteorological phenomena and climatological processes of the earth. Three lecture hours a week for one semester.

##### **GRG 302S. Special Topics in Geography.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

##### **GRG 304E, 404E. Environmental Science: A Changing World.**

Surveys the major global environmental concerns affecting the Earth and its residents from the perspectives of the environmental sciences. Three lecture hours and one-and-one-half laboratory hours a week for one semester.

##### **GRG 305 (TCCN: GEOG 1302). This Human World: An Introduction to Geography.**

Introductory survey of human geography, including human-environment relations, cultural patterns and processes, and geography's relation to other fields of study. Three lecture hours and one laboratory hour a week for one semester.

##### **GRG 306C. Conservation.**

Introduction to environmental management, with emphasis on the major causes and consequences of environmental degradation. The

course is organized around the premise that people cannot solve environmental problems unless they know how and why they occur; a major objective is to identify and understand the sociocultural forces that drive environmental degradation. Three lecture hours a week for one semester.

### **GRG 307C. Introduction to Urban Studies.**

Same as Urban Studies 301. A multidisciplinary study of cities and complex urban environments; historical and contemporary issues from both national and international perspectives. Three lecture hours a week for one semester.

### **GRG 309C. Creating the Sustainable Society.**

Same as Sociology 309C. Overview of sustainability as something human beings must strive to create in an era of global warming and ever greater social inequalities, both between and within countries. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 302P (Topic: Creating Sustainable Societies), 309C, Sociology 304 (Topic: Creating Sustainable Societies), 309C.

### **GRG 310C, 410C. Spatial Data and Analysis.**

Fundamental concepts in spatial data acquisition, analysis, and presentation, with emphasis on the needs of professionals in cartography, geographic information systems (GIS), and remote sensing. Three lecture hours and one-and-one-half laboratory hours a week for one semester.

### **GRG 312E. Digital Earth.**

Explore concepts in geospatial technologies that are becoming increasingly important tools in research, policy, and everyday life. These include geospatial data sources, applications, and implications. Two lecture hours and one-and-one-half laboratory hours a week for one semester.

### **GRG 319. Geography of Latin America.**

Same as Latin American Studies 319. Adaptations to population growth and spatial integration in cultural landscapes of great natural and ethnic diversity; problems of frontiers and cities. Three lecture hours a week for one semester.

### **GRG 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Geography.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **GRG 320K. Land and Life: The American Southwest.**

Historical geography of the southwestern United States, emphasizing the ways of life of American Indian, Spanish, mestizo, and Anglo cultures. Three lecture hours a week for one semester, with one field trip to be arranged. Prerequisite: Upper-division standing.

### **GRG 320M. Geography of Media.**

Explores communication media from a geographical perspective. Subjects include place images, changing attitudes about public and private spaces, social networking, and the geography of communications infrastructure. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 320M, 356T (Topic:

Geography of Media), 356T (Topic 7) Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **GRG 320N. Exhibitions and Public Spectacle.**

Same as Comparative Literature 323 (Topic 46), European Studies 347 (Topic 41), and German, Scandinavian, and Dutch Studies 361N. Investigate exhibits, world's fairs, museum, monuments, theme parks, and historical reconstructions from Europe and the US, with attention to images of how their sponsoring nations or other entities want to be seen. Examine evidence for both the good and bad sides of national pride and identity. Explore examples of how large-scale culture projects and the public interact. Consider the lasting marks left on the cities and countries sponsoring them. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Exhibitionism and Public Spectacle), 323 (Topic 46), European Studies 347 (Topic: Exhibitionism and Public Spectacle), 347 (Topic 41), Geography 320N, 356T (Topic: Exhibitionism and Public Spectacle), German, Scandinavian, and Dutch Studies 360 (Topic: Exhibitionism and Public Spectacle), 361N. Prerequisite: Upper division standing.

### **GRG 321D. Development and Social Movement in East and Southeast Asia.**

Same as Asian Studies 361J. Examine the notions of development and the ways in which development is associated with state building, moral economy, political performance, and accumulation regimes. Explore the development of civil society and social movement in East Asia, and explanations of the mechanisms and drivers of displacement. Conceptualize the "Right to the City", and alternative right-based approaches to land, housing, infrastructure, commons and public resources. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Development and Movement), 361J, Geography 321D, 356T (Topic: Development and Movement). Prerequisite: Upper-division standing.

### **GRG 321L. Archaeology of Climate Change.**

Same as Anthropology 324L (Topic 57). Examines why climate changes, the methods for recording climate change, and includes case studies of the varied responses of past human societies to climate change in different geographic regions and time periods with varying socio-political and economic systems. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Archaeology of Climate Change), 324L (Topic 57), Geography 321L, 356 (Topic: Archaeology of Climate Change). Prerequisite: Upper-division standing.

### **GRG 322D. Human Health and the Environment.**

Same as Urban Studies 332D. Introduction to environmental health concepts. Examine current events to explore the relationship between environment and health and whether an environmental condition is or is not an important threat to health. Discuss the complexity of determining "proof" in this field. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 322D, 356T (Topic 9), Urban Studies 332D, 350 (Topic 2). Prerequisite: Upper-division standing.

### **GRG 322L. Geographies of Latin American to United States Migration.**

Same as Latin American Studies 325E. Examine the contemporary complex multi-scalar origins, patterns, and processes of Latin American and Caribbean migration and settlement in the United States. Through a place-specific, spatially contextualized, and historically situated approach, explore the collective and individual experiences of migrants, asylum seekers, and refugees from select nations including: Mexico, Guatemala, Honduras, El Salvador, Puerto Rico, the Dominican Republic, Haiti, and Cuba. Analyze the multi-layered factors shaping diverse Latin American migratory patterns and processes. Three lecture hours a week

for one semester. Only one of the following may be counted: Geography 322L, 356T (Topic: Geog of Lat American-U.S. Migr), Latin American Studies 325E, 330 (Topic: Geog of Lat American-U.S. Migr). Prerequisite: Upper-division standing.

### **GRG 323K. South America: Nature, Society and Sustainability.**

Same as Latin American Studies 330 (Topic 3). Field study of environmental and social change in selected landscapes in South America, such as protected areas; places of food production; transportation routes; migrant landscapes; urban areas; sites of cultural and historical importance; and issues of human rights. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **GRG 324E. Applications and Ethics of Digital Spatial Technologies.**

Explore the applications and ethical considerations of remote sensing, the Global Positioning System (GPS), and Geographic Information System (GIS) technologies and practice. Three lecture hours a week for one semester. Geography 324E and 356T (Topic: Dig Spatial Tech: App/Ethcs) may not both be counted. Prerequisite: Upper-division standing.

### **GRG 324F. Race, Capitalism, and the Environment.**

Same as African and African Diaspora Studies 351U and Women's and Gender Studies 340 (Topic 82). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351U, 372C (Topic: Race/Capitalism/Environment), Geography 324F, 356T (Topic: Race/Capitalism/Environment), Women's and Gender Studies 340 (Topic: Race/Capitalism/Environment), 340 (Topic 82). Prerequisite: Upper-division standing.

### **GRG 325. Geography of Texas.**

Texas as an environmental and cultural borderland: as a transition zone between plains and mountains, humid and arid, South and West, Anglo-America and Latin America. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **GRG 325E. The Healthy, Livable City.**

Same as Urban Studies 325E. Explore the design of the built environment and its potential for addressing and preventing many childhood and adult health concerns in the United States. Examine how to create healthy, walkable, vital communities for all. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 325E, Geography 356 (Topic: The Healthy, Livable City), Urban Studies 325E, 352 (Topic: The Healthy, Livable City). Prerequisite: Upper-division standing.

### **GRG 326. Regions and Cultures of Europe.**

Same as European Studies 346 (Topic 19) and Russian, East European, and Eurasian Studies 345 (Topic 2). Spatial patterns in Europe, with emphasis on cultural, historical, and political geography. Only one of the following may be counted: European Studies 346 (Topic: Regions and Cultures of Europe), 346 (Topic 19), Geography 326, Russian, East European, and Eurasian Studies 345 (Topic 2). Prerequisite: Upper-division standing.

### **GRG 327. Geography of the Former Soviet Union.**

Same as Russian, East European, and Eurasian Studies 345 (Topic 4: Geography of the Former Soviet Union). A systematic introduction to cultural, physical, political, and economic geography of the former Soviet Union. Focus on the fundamental transformation that the former Socialist Union Republics, now sovereign states, have undergone since 1991. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **GRG 329K. Qualitative Methods for Social Research.**

Same as Latin American Studies 322P and Sociology 320T. Explore hands-on training in qualitative methods used in mixed methods research in contemporary social science. Examine the application and use of case studies; archival analysis; content analysis; participant observation and ethnography; key informant ("elite") interviewing; focus groups; social psychological testing; and how to design and run surveys. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 329K, Latin American Studies 322P, Sociology 320T, 321K (Topic: Qualtrv Mthds in Socl Rsrch). Prerequisite: Upper-division standing.

### **GRG 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Geography.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geography and the Environment. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **GRG 330F. Geographies of International Development in Africa.**

Same as African and African Diaspora Studies 340M. Critically examines the major approaches to "Development" in colonial and postcolonial eras, with a focus on a range of African resources: from water to wildlife, forests to farms, airways to rangelands, and including a consideration of African bodies themselves as sites of development and resistance. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340M, 372F (Topic: Intl Development in Africa), 372F (Topic 1), Geography 330F, 356T (Topic: Intl Development in Africa), 356T (Topic 10). Prerequisite: Upper-division standing.

### **GRG 330W, 430W. Water and Watersheds.**

Exposure to numerical analyses techniques developed by hydrologists and to fundamental equations controlling water transfer over and through earth materials. Learn how to administer hydrologic applications to practical problems in physical geography, geology, civil engineering, ecology, and environmental sciences. For 330W, three lecture hours a week for one semester; for 430W, three lecture hours and one-and-one-half laboratory hours a week for one semester. Geography 330W and 356 (Topic: Water and Watersheds) may not both be counted. Prerequisite: Upper-division standing and Geography 301C.

### **GRG 331K. Nature, Society, and Adaptation.**

Same as Anthropology 324L (Topic 17: Cultural Ecology). Long term trajectories of change in human environment relationships, including issues of human evolution and human nature, violence, population, food, agriculture, urbanization, globalizing modernization, and environmental impacts; issues of sustainability, cultural survival, human rights, and environmental protection. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **GRG 333C. Severe and Unusual Weather.**

A continuation of Geography 301K, focuses on atmospheric hazards such as severe thunderstorms and their offspring (hail, lightning, tornadoes, damaging winds and flash floods) as well as tropical cyclones. Covers human risk perception in relation to atmospheric hazards. Three lecture hours a week for one semester, with additional field hours to be arranged. Prerequisite: Geography 301K.

**GRG 333K. Climate Change.**

Examines changes in climatic systems over both short and long time periods in relation to impacts on physical and ecological systems. Discusses past, present, and future changes in climatic conditions and the methods used to make those evaluations. Three lecture hours a week for one semester. Geography 333K and 356T (Topic: Climate Change) may not both be counted. Prerequisite: Upper-division standing.

**GRG 334. Conservation, Resources, and Technology.**

Analysis of the relationship between the human population and its resource base, with particular emphasis on current problems in environmental resource management. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**GRG 334E. Children's Environmental Health.**

Discuss environmental health issues as they pertain to children's health. Focus on emerging scientific and public health issues such as water quality, air pollution, endocrine-disrupting chemicals, and the food environment. Three lecture hours a week for one semester. Geography 334E and 356 (Topic 1) may not both be counted. Prerequisite: Upper-division standing.

**GRG 334K. Soils.**

Morphology, genesis, properties, and distribution of world soils. Factors of soil formation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and six semester hours of coursework in physical geography or one or more of the geological or natural sciences, or the equivalent.

**GRG 334L. Vulnerability to Natural Hazards.**

Same as Latin American Studies 330 (Topic 5). An interdisciplinary approach, set right at the nexus of both physical and human geography, to studying the types of natural disasters that occur throughout Earth with a focus on tropical areas. Explore a region's susceptibility to natural disasters by studying the physical phenomena that incite specific hazards so that their spatial distribution can be outlined. Utilize theoretical frameworks that can expose the social causes of human vulnerability, the political repercussions of disasters, and how disaster response varies from country to country depending on varying political stances and economic conditions. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 334C, 334L, Latin American Studies 330 (Topic: Environment Hazards Latin America/Caribbean), 330 (Topic 5). Prerequisite: Upper-division standing.

**GRG 335C. Quaternary Landscapes.**

Changing physical and biotic landscapes on the Ice Age earth during the last two million years. Reconstruction of Quaternary geomorphic landscapes based on principles and applications of geochronology and paleoclimatology. Three lecture hours a week for one semester. Geography 335C and 385C may not both be counted. Prerequisite: Upper-division standing and Geography 301C.

**GRG 335D. Anthropocene.**

Evaluates the role of humans in changing Earth systems. Examines the evidence used to reconstruct past environments, to decipher the ecological and biogeographical consequences of land use, to measure altered surface processes, to distinguish the anthropogenic contribution to climate change, and to predict likely future scenarios. Explores the interaction of human history with altered biophysical patterns and processes. Assesses the recognition of the Anthropocene as a potential new epoch in Earth history, including the implications of that recognition for environmental stewardship. Three lecture hours a week for one semester. Geography 335D and 356T (Topic: Anthropocene) may not both be counted. Offered on the letter-grade basis only. Prerequisite:

Upper-division standing, and three semester hours of coursework in physical geography or one of the geological or natural sciences.

**GRG 335K. Mountain Geocology.**

Geological evolution of mountains. Physical geography of mountains: climates, soils, vegetation, landforms and geomorphic processes. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and six semester hours of coursework in physical geography or one or more of the geological or natural sciences.

**GRG 335N. Landscape Ecology.**

The study of spatial patterns in the earth's biosphere found within landscapes, typically areas measured in square kilometers. Examines the processes that create those patterns, drawing from ecology, biogeography, and many other disciplines. Also explores the practical applications of landscape ecology to the study of natural environments and those managed or altered by human activities. Three lecture hours a week for one semester. Geography 335N and 356T (Topic: Landscape Ecology) may not both be counted. Prerequisite: Upper-division standing and three semester hours of coursework in physical geography or one of the geological or natural sciences.

**GRG 336. Contemporary Cultural Geography.**

Same as Urban Studies 340. Recent theoretical developments in cultural geography, with a focus on landscapes and the everyday practices that imbue them with meaning; the ways those meanings are contested and are the foci of struggle; and how the relationship between culture and space plays a central role in the social construction of identity. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 336, Urban Studies 340, 354 (Topic 8). Prerequisite: Upper-division standing.

**GRG 336C. National Parks and Protected Areas.**

Introduces current conservation principles and management strategies; outlines the challenges, changes, and dilemmas associated with protected areas. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**GRG 337. The Modern American City.**

Same as Architecture 350R (Topic 1) and Urban Studies 337. Issues facing residents of United States cities, such as transportation and housing, poverty and crime, metropolitan finance, environmental and architectural design; historical/comparative urban evolution. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 350R (Topic 1), Geography 337, Urban Studies 337, 352 (Topic 1). Prerequisite: For students in the School of Architecture, upper-division standing; for others, upper-division standing and consent of instructor.

**GRG 338C. Rivers and Landscapes: Fluvial Geomorphology.**

Drainage basin evolution and channel adjustment, variability of river systems in differing geomorphic regimes, relationships between fluvial systems and other components of physical geography, and the role of humans as geomorphic agents. Three lecture hours a week for one semester, with additional field hours to be arranged. Prerequisite: Upper-division standing; and Geography 301C or Geological Sciences 401, or the equivalent.

**GRG 339, 439. Process Geomorphology.**

Analysis of geomorphic processes and their effects on landform development. For 339, three lecture hours a week for one semester; for 439, three lecture hours and one-and-one-half laboratory hours a week for one semester. Prerequisite: Upper-division standing, and credit or registration for Geography 301C or Geological Sciences 401.

### **GRG 339K. Environment, Development, and Food Production.**

Assessment of various types of agriculture with regard to environmental factors and management techniques. Three lecture hours a week for one semester. Geography 339K and 390S may not both be counted. Prerequisite: Upper-division standing.

### **GRG 340D. Political Ecology of Globalization and Environmental Degradation.**

Study of current environmental problems from the perspective of political ecology, which critically examines political, economic, and social relations between humans and the natural world. Uses case studies from Africa, Latin America, Asia, and the Middle East to address climate change, deforestation, desertification, biodiversity, and environmental justice. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **GRG 440L. Landuse/Landcover Change Practicum.**

Focuses on best practices for classifying and mapping land use and land cover, as well as how they change over time in an experiential learning environment. Develop testable hypotheses answered by the original data analysis and interpretation. Two lecture hours and three laboratory hours a week for one semester. Geography 440L and 356T (Topic: Landuse/Landcover Change Practicum) may not both be counted. Prerequisite: Geography 460G.

### **GRG 340U. Internship and Service Learning.**

Same as Urban Studies 360. Internship experience in an urban studies-related public or nonprofit agency. The opportunity to apply the knowledge, theory, and understanding gained from courses in areas of specialization to urban issues in a professional setting. Includes an academic service-learning component. Approximately five to ten hours a week for one semester. Only one of the following may be counted: Geography 340U, 356T (DIRECTED INTRNSHPS IN URB STDS), Urban Studies 360. Prerequisite: Upper-division standing; and Urban Studies 301 and 315.

### **GRG 341K. Landscapes of Mexico and Caribbean America.**

Same as Latin American Studies 330 (Topic 2: Landscapes of Mexico and Caribbean America). The natural regions and cultural landscapes of Mexico, Central America, and the West Indies. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **GRG 342C. Sustainable Development.**

Historical and contemporary analysis of international development with a focus on the prospects for environmental sustainability. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **GRG 342S. Sustainability, Equity, and Health.**

Same as Health and Society 347E. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 342S, 356 (Topic: Sustainability/Equity/Health), Health and Society 340 (Topic: Sustainability/Equity/Health), 347E. Prerequisite: Upper-division standing.

### **GRG 343E. Mapping Latin America.**

Same as History 363E and Latin American Studies 330 (Topic 4). Discuss the role of maps in the creation of Latin America as a specific sort of place. As such, allows familiarity with a broad overview of Latin American history from Pre-Columbian civilizations to the modern period. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 343E, 356T (Topic: Mapping Latin America), 356T (Topic 12), History 363E, 363K (Topic: Mapping Latin America),

363K (Topic 4), Latin American Studies 330 (Topic: Mapping Latin America), 330 (Topic 4). Prerequisite: Upper-division standing.

### **GRG 344G. Environmental Law.**

Examine environmental law and its impact on all life. Analyze key federal environmental statutes and leading cases in which these statutes have been interpreted by courts. Three lecture hours a week for one semester. Geography 344G and 356 (Topic: Environmental Law) may not both be counted. Prerequisite: Upper-division standing.

### **GRG 344K. Global Food, Farming, and Hunger.**

Examination of contemporary transformations in global agro-food systems, with emphasis on the current paradox of epidemic obesity in some parts of the world and enduring hunger in others. Three lecture hours a week for one semester. Geography 344K and 356T (Topic: Farming, Food, and Global Hunger) may not both be counted. Prerequisite: Upper-division standing.

### **GRG 346. The Human Use of the Earth.**

The state of the world from an ecological perspective. Case studies are drawn from a wide range of ecological settings and involve both traditional and modern societies. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **GRG 349S. Global Sustainability and Soil.**

Same as Liberal Arts Honors 352J. Restricted to Plan I majors in the College of Liberal Arts. Examine soil as a resource from the perspectives of natural and sustainability science, including soil ecology and biodiversity, formation, fertility for ecosystems and farming systems, soil health, distinguishing characteristics in nature, taxonomy, and soil spatial variability around the globe. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 349S, 356 (Topic: Global Sustnblty/Soil-Hon), Liberal Arts Honors 350 (Topic: Global Sustainability/Soil), 352J. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Geography 401C, and a cumulative grade point average of at least 3.25.

### **GRG 350E. Geoprocessing.**

Computer programming and scripting applied to geospatial data. Three lecture hours a week for one semester. Geography 350E and 356T (Topic: Geoprocessing) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and Geography 460G.

### **GRG 350K. Geographies of Globalization.**

Examines globalization in historical and contemporary contexts, with a focus on race, class and gendered power. Three lecture hours a week for one semester. Geography 350K and 356T (Topic: Introduction to Globalization) may not both be counted.

### **GRG 356. Topics in Environmental Geography.**

Topics include environmental assessment methods and techniques, the conservation movement, and climate and people. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### **GRG 356C. Geo-Archaeology and Environmental History.**

Long-term ecology as reconstructed from settlement and land-use histories. Empirical case studies in environmental history from the Mediterranean region, the Near East, and Mesoamerica. Applications to degradation, desertification, sustainability, and global change. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 382N, Geography 356C, 382K. Prerequisite: Upper-division standing.

### **GRG 356D. Water Resources in Latin America and the Caribbean.**

Same as Latin American Studies 331. Examine the variability of landscapes, climatic regions, and anthropogenic activities found throughout Latin America and the insular Caribbean to explore the complex issues related to water resource accessibility. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 356 (Topic: Water Res: Lat Amer/Caribbean), 356D, Latin American Studies 330 (Topic: Water Res: Lat Amer/Caribbean), 331. Prerequisite: Upper-division standing.

### **GRG 356T. Topics in Geography.**

Three lecture hours a week for one semester. Some topics may require additional field trips. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: The Culture of Cities.** Same as American Studies 370 (Topic 13) and Urban Studies 320T. Examines the social, geographical, and cultural evolution of the United States from a rural and small-town society to an urban and suburban nation. Subjects may include the segregation of public and private space; the formation of urban subcultures organized by gender, work, race, religion, and sexuality; social and spatial divisions between rich and poor and native-born and immigrant; and the increasing importance of "cultural capital" in reshaping urban politics and in conflicts over revitalization and gentrification. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic 13), Geography 356T (Topic 1), Urban Studies 320T, 354 (Topic 4). Additional prerequisite: Upper-division standing.

**Topic 2: Memory and Place.** Same as American Studies 370 (Topic 23). Explores how cultural memory is produced in its various forms, from memorials, public art, and commodities to popular culture, rituals, and museums, and how public remembering is inevitably anchored in specific geographic places. Additional prerequisite: Upper-division standing.

**Topic 3: Geographical Information Systems and Remote Sensing for Archaeology and Paleontology.** Same as Anthropology 324L (Topic 33). Designed to give students interested in the fields of archaeology, physical anthropology, and paleontology a foundation in the use of geographical information systems (GIS) and the analysis of remotely sensed data from satellites and aerial photographs. Additional prerequisite: Upper-division standing.

**Topic 4: Northern Lands and Cultures.** Same as European Studies 346 (Topic 9) and Russian, East European, and Eurasian Studies 345 (Topic 6). Develops geographical understanding of the Circumpolar region of the North, an ancient human habitat, home to distinct millennia-old civilizations. Only one of the following may be counted: European Studies 346 (Topic: Northern Lands and Cultures), 346 (Topic 9), Geography 356T (Topic: Northern Lands and Cultures), 356T (Topic 4), Russian, East European, and Eurasian Studies 345 (Topic: Northern Lands and Cultures), 345 (Topic 6). Additional prerequisite: Upper-division standing.

**Topic 5: Urban Publics.** Same as Urban Studies 324C. The concept of the public in the city and how it has shifted over time along the lines of gender, ethnicity, race, and class. Examines contemporary struggles over defining the urban public and how those struggles are linked to social, cultural, political, and economic forces. Subjects include uses of public space, the public sphere, eminent domain, urban politics, civic engagement, and political participation. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 356T (Topic 5), Urban Studies 324C, 354 (Topic: Urban Publics). Additional prerequisite: Upper-division standing.

**Topic 6: The Environmental Change and Management of Large Rivers.** An interdisciplinary perspective on the physical processes of large rivers. Subjects include land degradation; deforestation;

river engineering; flood processes; sedimentology; floodplains management; ecohydrology; Quaternary fluvial geomorphology; and paleohydrology. Only one of the following may be counted: Geography 356T (Topic: Environmental Change and Management of Large Rivers), 356T (Topic 6), Latin American Studies 330 (Topic: Environmental Change and Management of Large Rivers). Prerequisite: Upper-division standing.

**Topic 8: Global Societies.** The use of geographical perspectives to make sense of the global society. Subjects include globalization, war, economic crisis, and social movements. Geography 356T (Topic: Global Societies) and 356T (Topic 8) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 14: Geography of Religion in Eastern Europe and Russia.** Same as Religious Studies 357G and Russian, East European, and Eurasian Studies 345 (Topic 9). A comprehensive overview of major religious culture regions in the former Eastern bloc countries. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 356T (Topic: Geography of Religion in Eastern Europe and Russia), 356T (Topic 14), Religious Studies 357 (Topic: Geography of Religion in Eastern Europe and Russia), 357 (Topic 5), 357G, Russian, East European, and Eurasian Studies 345 (Topic: Geography of Religion in Eastern Europe and Russia), 345 (Topic 9). Additional prerequisite: Upper-division standing.

### **GRG 357. Medical Geography.**

The geographic distribution, expansion, and contraction of the infectious diseases that have the greatest influence in shaping human societies today: malaria, AIDS, and others. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **GRG 358E. Geography and Religion.**

Same as Humanities 350 (Topic 3). Ideas about the relationships among the natural world, myth, and ritual; principal focus on Christianity, Islam, and Judaism and their offshoots and antagonists in the Western world. Geography 358E and Humanities 350 (Topic 3) may not both be counted. Prerequisite: Upper-division standing.

### **GRG 460C. The Geographer's Craft.**

A comprehensive introductory survey of research techniques used in contemporary geography. The course uses the problem-solving approach to teach technical skills and concepts drawn from cartography, remote sensing, geographical information systems, spatial statistics, and maps and map interpretation. Three lecture hours and one and one-half laboratory hours a week for one semester.

### **GRG 460G. Environmental Geographic Information Systems.**

An introduction to the creation and use of geographic information systems. Three lecture hours and two lab hours a week for one semester. Prerequisite: Upper-division standing.

### **GRG 360L. Spatial Analysis.**

Application of statistical techniques to spatial problems: research and experimental design, hypothesis testing and sampling, with reference to spatial patterns and areal associations. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **GRG 462K. Introduction to Remote Sensing of the Environment.**

The use of electromagnetic energy to sense objects in the natural environment; interpretation and recognition of patterns detected by sensors. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Upper-division standing.

**GRG 464K. Advanced Remote Sensing and Pattern Analysis.**

Advanced classification techniques for satellite image processing and landscape pattern analysis. Three lecture hours and one and one-half discussion hours a week for one semester. Geography 356 (Topic: Advanced Remote Sensing and Pattern Analysis) and 464K may not both be counted. Prerequisite: Upper-division standing, and Geography 462K or the equivalent or consent of instructor.

**GRG 366C. Comparative Ecosystems.**

The important ecosystem processes that affect the distributions, characteristics, and management of natural environments at landscape, regional, and continental scales. Ecosystem functions, including nutrient cycling, water balance, and the role of natural disturbances in a wide range of ecosystems, from the tundra to the rain forests and grasslands of the tropics. Three lecture hours a week for one semester. Geography 356T (Topic: Comparative Ecosystems) and 366C may not both be counted. Prerequisite: Upper-division standing and three semester hours of coursework in physical geography or one of the geological or natural sciences.

**GRG 366K. Biogeography.**

Contemporary patterns of plant and animal distribution, and the environmental and historical processes affecting them. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and three semester hours of coursework in physical geography or one of the geological or natural sciences.

**GRG 367D. Climate Change and Vegetation Response in the Kalahari.**

Using the Kalahari as a basis for understanding, explore the ecological dynamics of savanna systems and their interactions with climatic variability over time and space. The focus on monitoring and assessment to inform rangeland management includes vegetation sampling and calculations of carrying capacity. Examine how savanna systems dynamics are comparable across regions, and thus are both globally and UT-locally relevant. The equivalent of three lecture hours a week for one semester. Geography 356T (Topic: Climate Change and Vegetation Response in the Kalahari) and 367D may not both be counted. Offered on the letter-grade basis only. Prerequisite: GPA of at least 2.0.

**GRG 367K. Vegetation Ecology.**

Plant autecology and synecology. Ecological factors and processes of plant communities. Vegetation geocology, succession, and dynamics. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and six semester hours of coursework in physical geography or one or more of the geological or natural sciences.

**GRG 368C. Spatial Analysis and Geographic Information Systems.**

Addresses spatial problem solving by focusing on both the theoretical/conceptual and practical aspects of geographic information systems modeling. Describes geographic information systems techniques and spatial statistics used to quantify and measure spatial patterns. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Geography 460G (360G).

**GRG 368D. Enviro-Cultural Dynamics in Botswana.**

Examines the Kalahari case study of the San "First People" and their history of treatment in the Central Kalahari Game Reserve compared to other more recently arriving peoples. Explores how cultural groups are differentially treated and how that treatment and their ties to and uses of the landscape evolves over time. The equivalent of three lecture hours a week for one semester. Geography 356T (Topic: Enviro-Cultural Dynamics

in Botswana) and 368D may not both be counted. Offered on the letter-grade basis only. Prerequisite: GPA of at least 2.0.

**GRG 369D. GIS Applications in Social and Environmental Science.**

A hands-on approach to covering the appropriate use of geographical information systems (GIS) and spatial statistical analysis in different sub-disciplines. Three lecture hours a week for one semester. Geography 356 (Topic: GIS Applications in Social and Environmental Science) and 369D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Geography 460G.

**GRG 470C. Advanced Geographic Information Systems.**

Study of methods of spatial analysis, design and implementation of a geographic information system, vector and raster modeling, and advanced applications of geographic information systems. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Upper-division standing and Geography 460G (360G).

**GRG 370D. Spatial Reasoning with Geographic Information Systems.**

Using Geographic Information Systems (GIS) and spatial analysis, examine different types of real-world problems. Read newspaper and journal articles about real issues or problems and explore how they can be addressed and potentially solved. Focus on specific problems and learn about the GIS tools and techniques that are appropriate for each scenario. Three lecture hours a week for one semester. Geography 356 (Topic: Spatial Reasoning with GIS) and 370D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Geography 460G.

**GRG 373F. Field Techniques.**

Introduction to the collection and mapping of environmental and cultural data, involving both classroom lectures and outdoor exercises. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, a major in geography, and consent of instructor.

**GRG 373K. Field Methods for Landscape Characterization.**

The design of research questions and the acquisition of data for the characterization of landscapes. Utilizes geographical and ecological field-based methods. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Geography 301C or the equivalent.

**GRG 374. Frontiers in Geography.**

Restricted to geography majors and students seeking a secondary school teaching certificate with geography as the second teaching field. Current concerns and methodology in the field of geography; an introduction to theory and research in geography. The equivalent of three lecture hours a week for one semester, with one field trip to be arranged. Prerequisite: Upper-division standing and consent of the undergraduate adviser.

**GRG 476T. Topics in Geography.**

Three lecture hours and one and one-half laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**GRG 679H. Honors Tutorial Course.**

For honors candidates in geography. Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis. Regular conferences with the faculty supervisor are also required. Conference course for two semesters. Prerequisite: For 679HA, admission to the Geography Honors Program no later than two semesters before expected graduation; for 679HB, Geography 679HA. A University grade point average of at least 3.00 and a grade point average

in geography of at least 3.50 are required for admission to the Geography Honors Program.

### **GRG 379K. Conference Course.**

Supervised individual study of selected problems in geography. Conference course. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in one or more of the social, geological, or natural sciences; and consent of instructor.

### **GRG 379L. Practicum: Internships in Applied Geography.**

Research and staff experience working in an appropriate government agency or private business. At least six but no more than nine hours of work a week for one semester. Prerequisite: Completion of at least seventy semester hours of coursework, including twelve semester hours of geography, and consent of the undergraduate adviser.

## **Graduate Courses**

### **GRG 380. Field Course in Geography.**

Collection of data, formulation of meaningful categories of regions, development of hypotheses of cause-and-effect relations through direct contact with the phenomena and processes in the area where a problem is located. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **GRG 380C. Myth, Ritual, Place, and Environment.**

Impact of local religious lore and practice on cultural landscapes, conservation, and sense of place; cultural and environmental consequences of the spatial expansion of world religions; other themes in the geography of religion, including civil religion and environmental theology. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 380D. Environment and Health in Latin America.**

Same as Latin American Studies 388 (Topic 4: Environment and Health in Latin America). Issues related to health, health care, and development in Latin America and the Caribbean, considered with the recognition that health depends on the interactions of social, economic, and political factors as well as on health care services. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 380E. Geomorphology of the Southwest.**

Geography of West Texas and New Mexico; late Cenozoic basalt flows, volcanic ashes, sand sheets, alluvium, paleolake deposits, glacial moraines, colluvium, and soils; integration of landforms and landscape ecology. Includes a ten-day field trip. The equivalent of three lecture hours a week for one semester, with additional field hours to be arranged. Prerequisite: Graduate standing and consent of instructor.

### **GRG 380F. Field Techniques in Sediments and Soils.**

Designed to provide experience in field description of sediments and soils in Central Texas; second half of course focuses on field interpretation of geomorphology and landscape evolution using sedimentary deposits and soils. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **GRG 381. Seminar in Historical Geography.**

Topics include Latin America, Anglo-America, Texas, boundaries, settlement origins and patterns, origins of agriculture. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in geography or a related social science, and consent of instructor.

### **GRG 381C. Mapping the Middle East.**

Ways in which the Middle East is and has been represented cartographically. Cartographic representations of the region during the fifteenth and sixteenth centuries; the nature and evolution of a distinctive Islamic cartographic tradition; the role and use of maps during the nineteenth and twentieth centuries both in the extension of colonialism and in the creation of modern states; and the contemporary use, applications, and implications of geographic information systems in organizing and representing data spatially. Prerequisite: Consent of instructor.

### **GRG 381D. Soil Geomorphology.**

Examine three aspects of soil geomorphology: soil formation as it relates to earth surface processes, soils and sustainability, and soil ecosystem interactions. Three lecture hours a week for one semester. Geography 381D and 396T (Topic: Soil Geomorphology) may not both be counted. Prerequisite: Graduate standing.

### **GRG 382K. Geo-Archaeology and Environmental History.**

Same as Anthropology 382N. Long-term ecology as reconstructed from settlement and land-use histories. Empirical case studies in environmental history from the Mediterranean region, the Near East, and Mesoamerica. Applications to degradation, desertification, sustainability, and global change. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 382N, Geography 356C, 382K. Prerequisite: Graduate standing.

### **GRG 383C. Seminar in Environment and Development.**

A third- and fourth-world perspective on the geographic implications of international development; emphasis on local and global environmental effects. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in geography or a related social science.

#### **Topic 2: Environment and Development in the Middle East.**

### **GRG 383F. Long-Term Climate Change and History.**

Climate and atmospheric science considered with long-term climate and historical and archaeological change over Earth history, focusing on the Quaternary to the future. Three lecture hours a week for one semester. Geography 383F and 396T (Topic: Long-Term Climate Change and History) may not both be counted. Prerequisite: Graduate standing.

### **GRG 384C. Watershed Systems and Environmental Management.**

The effect of landcover change on drainage basin processes, considered from a geomorphological perspective over varying temporal and spatial scales. Topics may include watershed management, stream channel restoration, fluvial geomorphic processes, and Geographic Information Systems applications to drainage basin processes. Three lecture hours a week for one semester, with additional field hours to be arranged. Prerequisite: Graduate standing and consent of instructor.

### **GRG 385. Seminar in Regional Geography.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; consent of instructor.

**Topic 1: Regional Geography of Latin America.** Same as Latin American Studies 388 (Topic 1: Regional Geography of Latin America). Topics include land and life in Central America; culture, environment, and development in Latin America; recent trends in Latin American geography.

**Topic 2: Europe.** Topics include various aspects of the economic and political geography of individual nations or regions, such as

regional differences in Southeast Europe, agricultural developments in European Community countries, trade, viability of individual countries, the changing resources picture in Western and Eastern Europe.

**Topic 3: Anglo-America.** Topics include agricultural patterns of the United States, comparative regional studies, measurement and delimitation of regions, analysis of population shifts.

**Topic 4: Asia.** Topics include economic regionalization in Asia, spatial structure of Asian manufacturing, regional discrimination analysis for selected areas and variables in Asia, urban structure in South Asia, developmental activity and spatial change in India.

**Topic 5: Regional Geography of the Middle East and North Africa.** Same as Middle Eastern Studies 381 (Topic 11: Regional Geography of the Middle East and North Africa). Topics include developmental activity and spatial change in the Middle East, comparative regional studies.

### **GRG 385C. Quaternary Landscapes.**

Changing physical and biotic landscapes on Ice Age earth during the past two million years. Reconstruction of Quaternary geomorphic landscapes based on principles and applications of geochronology and paleoclimatology. Three lecture hours a week for one semester. Geography 335C and 385C may not both be counted. Prerequisite: Graduate standing.

### **GRG 385H. Wetlands: Earth System Science and History.**

Biophysical, historical, and policy/restoration components of wetlands with global and regional case studies. Three lecture hours a week for one semester. Geography 385H and 396T (Topic: Wetlands and Floodplains) may not both be counted. Prerequisite: Graduate standing.

### **GRG 386C. Seminar in Quaternary Studies.**

Issues and new developments in regional and global aspects of Quaternary climates, biota, prehistory, and landscape evolution. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **GRG 387C. Political Ecology.**

An introduction to the history of development theory, economic globalization, studies in the history of science, issues of social justice, and critical studies of environmental history. Three lecture hours a week for one semester. Geography 387C and 396T (Topic: Political Ecology) may not both be counted. Prerequisite: Graduate standing.

### **GRG 387D. Globalization, Conflict, and Resistance.**

Focuses on a theoretical and empirical understanding of the economic, cultural, political, and policy dimensions of globalization; study of the impact of globalization on people and places; understanding of class and identity conflicts using case studies from Latin America, the United States, Europe, Africa, the Middle East, and Asia; and exploration of theories of social movement with examples from the global North and South. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 387K. Geoarchaeology of Mesoamerica.**

Examine three areas of Mesoamerican geoarchaeology: regional environments, the lines of scientific evidence for current and past environments, and human-environmental interactions from the Pleistocene to the present. Three lecture hours a week for one semester. Geography 387K and 396T (Topic: Geoarchaeology of Mesoamerica) may not both be counted. Prerequisite: Graduate standing.

### **GRG 388. Seminar in Resources and Conservation.**

Development of the conservation movement, problems of resource misuse, conservation practices, state and national conservation policies, nature and distribution of natural resources. Three lecture hours a week

for one semester. Prerequisite: Graduate standing in geography or a related social science, and consent of instructor.

### **GRG 388C. Indigenous Maps, Architecture, and Enculturation of Colonial Mexico.**

Same as Latin American Studies 388 (Topic 2: Indigenous Maps, Architecture, and Enculturation of Colonial Mexico). The encounter of Spanish and indigenous cultures and ecologies; regional diversity of agricultural, urban, and economic development from 1521 to 1810; ethnic transformation and new socioeconomic configurations. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 388R. Forest Hydrology.**

Traces the history of forest hydrology as a science that describes the natural complexities of water movement through forested headwater landscapes and the changes imposed to these processes by disturbances associated with extreme weather events, deforestation, timber harvesting, wildfires, and climate change. Three lecture hours a week for one semester. Geography 388R and 396T (Topic: Forest Hydrology) may not both be counted. Prerequisite: Graduate standing.

### **GRG 389P. Hydrogeomorphology.**

Hydrologic and geomorphologic applications to practical problems in physical geography, geology, civil engineering, ecology, and environmental sciences. Three lecture hours a week for one semester. Geography 389P and 396T (Topic: Hydro-Geomorphology) may not both be counted. Prerequisite: Graduate standing.

### **GRG 390. Cultural and Humanistic Geography.**

Analysis of human-environment interactions by employing the concepts of place, home, and dwelling. Discussion of humanistic and postmodern geographical research. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 390C. Landscape, Meaning, and Society.**

The creation, transformation, and meaning of landscapes within different societies through time. Iconographical analysis of the built environment; impress of belief and ideology on landscape; analysis of nationalistic and authoritarian landscapes; problems of defining and mapping ethnicity; civilizational process and behavior; institutional vandalism, place annihilation, and the destruction and effacement of landscape symbols; cultural and geographical foundations and unintended consequences of global economic integration. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **GRG 390K. Issues in Geography.**

Examines the history, philosophy, and ontology of geography, including its various subfields. Three lecture hours a week for one semester. Required of all first-year graduate students in geography. Prerequisite: Graduate standing in geography, or graduate standing and consent of the graduate adviser.

### **GRG 390L. Research in Geography.**

Builds on topics explored in Geography 390K by focusing on epistemology and research in the field of geography. Students develop plans for research and write a research proposal. Three lecture hours a week for one semester. Required of all first-year graduate students in geography. Prerequisite: Graduate standing and Geography 390K.

### **GRG 390S. Environment, Development, and Food Production.**

Assessment of various types of nonmechanized agriculture with regard to environmental factors and management techniques. Three lecture

hours a week for one semester. Geography 339K and 390S may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **GRG 391C. Dynamics of Earth Systems.**

An overview of climate, vegetation, soil, and landform processes. Principles and methodology of physical geography. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 391M. Multivariate Techniques in Spatial Analysis.**

The application of multivariate data analytic techniques including regression, factor, canonical, and discriminatory analysis of spatial problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Geography 360L or a basic course in inferential statistics.

### **GRG 392C. The Anthropocene in the Longue Duree.**

Explore the "Anthropocene" (early to future) from the perspectives of multiple disciplines including geography, anthropology, archaeology, geology, and ecology. Discuss its drivers, its historical roots, and its chronologies. Three lecture hours a week for one semester. Geography 392C and 396T (Topic: Anthropocene In The Longue Dur) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **GRG 192D. Grant Writing in Geography.**

Designed to train students to write competitive and successful applications for extramural grants and fellowships. One lecture hour a week for one semester. Prerequisite: Graduate standing.

### **GRG 392M. Seminar in Biodiversity Conservation.**

Examines issues that involve the conservation and sustainable use of plants, animals, and ecosystems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 393C. Seminar in Digital Landscapes.**

Explores the theoretical and applied issues associated with the acquisition, analysis, simulation, and visualization of digital geographic information, with an emphasis on current trends in landscape characterization, landscape ecology, biodiversity, global change, environmental remote sensing, and socio-ecological systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 393D. Geographical Information Systems and Ecological Modeling.**

Covers the steps involved in conceptualizing and formulating predictive models in a raster geographical information systems environment. Although many of the topics covered are fairly generic and can be applied to any application area in which raster data are used, species distribution models will be used as the example application area. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 493K. Research in Remote Sensing of the Environment.**

Imagery generated by remote sensors applied to research and problem solving in the physical and cultural environment. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 493M. Advanced Remote Sensing and Quantitative Landscape Ecology.**

Advanced digital image processing of optical satellite imagery for landscape composition and pattern analysis. Three lecture hours and one and one-half discussion hours a week for one semester. Prerequisite: Graduate standing, and Geography 493K or the equivalent or consent of instructor.

### **GRG 394. Seminar in Urban Analysis.**

Research seminar in urban issues: demographic, environmental, and transportation modeling; metropolitan finance; and urban social pathologies. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 394F. Feminist Geographies.**

Uses a feminist geographic lens to interrogate a range of historical and contemporary geopolitical and geoeconomic issues including (re)productive labor struggles, migration, development, globalization, colonialism, nationalism, militarization and transnational resistance movements. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 394F, 396T (Topic: Feminist Geographies), Women and Gender Studies 393 (Topic: Feminist Geographies). Prerequisite: Graduate Standing.

### **GRG 394K. Geographic Information Systems.**

An introduction to the design and use of geographic information systems and to computer-based tools used to store, manage, analyze, and display spatially referenced data. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **GRG 394L. Advanced Applications of Information Technology.**

Advanced issues in computer cartography, geographic information systems, three-dimensional environmental reconstruction and rendering, terrain modeling, animation of environmental processes, and hypertext and multimedia authoring. Interdisciplinary subjects, such as the application of geographic information systems to archaeological research, historical demography, and habitat mapping and analysis. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **GRG 395. Cultural Adaptation and Change.**

Same as Anthropology 395K. A graduate-level introduction to cultural behavior, adaptation, evolution and transformation, with emphasis on demography, diffusion, migration, ethnicity, and institutions. Three lecture hours a week for one semester. Prerequisite: Graduate standing in anthropology, geography, or a related field, and consent of instructor.

### **GRG 395D. Latin American Cultures, Environment, and Development.**

Same as Latin American Studies 388 (Topic 3: Latin American Cultures, Environment, and Development). Exploration through Latin American examples of issues of cultural identity and territory, adaptive strategies, environmental impact, conservation, cultural survival, parks and people, and sustainable development. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **GRG 395K. Getting and Staying Funded.**

Written, oral, and multi-media skills for improved success in academic and non-academic professional arenas including, but not limited to, grant and thesis proposal writing, CV and job application writing, audience-targeted formal and informal oral presentations, multimedia production (e.g., poster, video), and career timeline planning. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 395K, 396T (Topic: Advanced Proposal Writing Bootcamp), 396T (Topic: Strategic Communication/Advanced Proposal Writing). Prerequisite: Graduate Standing.

### **GRG 396. Techniques in Pollen Analysis.**

Field sampling, laboratory processing, microscopy, pollen grain morphology, pollen counting, and data-handling techniques. Two lecture

hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **GRG 396C. Seminar in Current Geographic Research.**

Review and discussion of recent research projects across the field of geography; includes analysis of theories and methodologies, and various methods for presenting results. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in geography or a related field, and consent of instructor.

### **GRG 396K. Quaternary Palynology.**

Methods, principles, and applications of pollen analysis to vegetational, paleoenvironmental, and ethnobotanical reconstructions. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GRG 396T. Topics in Geography.**

Three lecture hours a week for one semester. Some topics may require additional field trips. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

### **GRG 197, 297, 397. Conference Course in Geography.**

Supervised study and research. For every hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of supervising professor.

### **GRG 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in geography and consent of the graduate adviser; for 698B, Geography 698A.

### **GRG 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in geography and consent of the graduate adviser.

### **GRG 398T. Supervised Teaching in Geography.**

Teaching under the close supervision of the course instructor; group meetings with the instructor, individual consultations, and reports throughout the teaching period. Three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant.

### **GRG 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Geological Sciences Courses**

## **Geological Sciences: GEO**

### **Lower-Division Courses**

#### **GEO 401 (TCCN: GEOL 1403). Physical Geology.**

Registration priority given to environmental science and geological sciences majors. Nature, properties, and distribution of crustal materials; surficial processes; internal processes; origin of continents, oceans, and ocean basins; mineral and fuel resources. Three lecture hours and two

hours of laboratory or fieldwork a week for one semester. Only one of the following may be counted: Geological Sciences 401, 303, 420H.

#### **GEO 302C. Climate: Past, Present, and Future.**

Designed for non-geological sciences majors. Principal factors that determine Earth's climate, evidence of climate change, causes of climate change, natural climatic variations and human-induced changes, prediction of climate in the next one hundred years, and uncertainties in climate prediction. Three lecture hours and one and one-half laboratory hours a week for one semester.

#### **GEO 302D. Age of Dinosaurs.**

An exploration of the general principles of natural history, focusing on the natural history of dinosaurs. An introduction to the basics of geology, anatomy, paleontology, and evolutionary theory, followed by the application of this knowledge, in tracing the evolutionary history of Dinosauria. Three lecture hours and one and one-half laboratory hours a week for one semester. May not be counted toward a degree in environmental or geological sciences.

#### **GEO 302E. Earth, Wind, and Fire.**

Designed for non-geological sciences majors. Geologic phenomena that affect everyday life, including global warming, earthquakes, volcanism, desertification, river and coastline flooding and erosion, groundwater, mineral resources, and plate tectonics. Three lecture hours and one and one-half laboratory hours a week for one semester. May not be counted toward a degree in environmental science or geological sciences.

#### **GEO 302G. Earth Science and Sustainability.**

Inquiry-based; explores grand challenges in earth science that affect sustainability and society, including climate change, energy production, soil erosion and agriculture, water availability, and natural hazards risk assessment and prediction. Activities include authentic data, simple models and maps used in geoscience gathering, and analysis and real-world application. The equivalent of three lecture hours a week for one semester. Geological Sciences 302K (Topic: Earth Science/Sustainability) and 302G may not both be counted.

#### **GEO 302J. Crisis of Our Planet.**

Designed for nonscience majors. Explores the interactions between humans and the Earth system by investigating the different time and spatial scales of the natural hazards that the planet presents, and exploring the societal and economic implications of civilizations co-existing with an evolving planet. Discussion of both long-term and punctuated catastrophic hazards, focusing on those from volcanoes, hurricanes, and earthquakes, using a combination of systems level exploration of the driving mechanisms as well as case histories. Discussion of issues related to risk, mitigation, and resilience for humans facing the vast array of natural hazards. Three lecture hours a week for one semester.

#### **GEO 302K (TCCN: GEOL 1301, GEOL 1302, GEOL 1401, GEOL 1402). Selected Topics in Geological Sciences.**

Designed for nonscience majors. The impact of geological processes on human activity; geologic topics of popular interest. Three lecture hours and one-and-one-half laboratory hours a week for one semester. May be repeated for credit when the topics vary.

#### **GEO 302M. The Age of Mammals.**

Introductory-level course on paleontology and natural history for nonscience majors. Basic geological processes, fossilization, and the fossil record. Overview of the "tree of life." Summary of the evolution and diversification of mammals, an introduction to interactions between physical and biological processes, and the impact of climate change and human activities on mammalian communities. Laboratory component

focuses on the mammalian skeleton and common Texas mammals. Three lecture hours and one and one-half laboratory hours a week for one semester. May not be counted toward a degree in environmental or geological sciences.

### **GEO 302N. Geology of National Parks.**

Explore the geology of the US National Park System through a detailed examination of its rocks, landscapes, climate, hydrology, natural resources, and environmental impacts. Examine particular national parks which exhibit specific Earth processes. Includes threats posed to the park system: environmental tourism, encroaching development, water and air quality, air pollution, and natural hazards. The equivalent of three lecture hours a week for one semester.

### **GEO 302P (TCCN: ENVR 1301, GEOL 1305). Sustaining a Planet.**

Restricted to freshmen and sophomores. Explores the interactions between humans and the Earth system by investigating the different time and spatial scales of the natural hazards that the planet presents, and exploring the societal and economic implications of civilizations co-existing with an evolving planet. Discussion of both long-term and punctuated catastrophic hazards, focusing on those from volcanoes, hurricanes, and earthquakes, using a combination of systems level exploration of the driving mechanisms as well as case histories. Discussion of issues related to risk, mitigation, and resilience for humans facing the vast array of natural hazards. Three lecture hours and one and one-half laboratory hours a week for one semester. May not be counted toward a degree in geological sciences.

### **GEO 302Q. Gems and Gem Minerals.**

Examine crystallography, occurrence, and identification of gem minerals and materials; artificial gems; simple cutting and polishing; and the history of gems and gemology. Three lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Geological Sciences 302Q, 302K (Topic: Gems and Gem Minerals), 347K.

### **GEO 303. Introduction to Geology.**

Registration priority given to environmental science, geological sciences, and petroleum and geosystems engineering majors. Mineral and rock composition of the earth; measurement of geologic time; origin and evolution of life; earth's interior; plate tectonics; depositional environments and processes; ancient climates; humans, earth resources, and the environment. Two lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Geological Sciences 401, 303, 420H.

### **GEO 303C. Introduction to the Solar System.**

Examines the origin and evolution of our solar system; how processes such as volcanism and impacts have shaped planet surfaces, as well as the workings of planetary interiors; the unique properties of Earth that allowed life to arise and evolve; the prospects for seeking life on other planets in our own solar system and beyond; and the history of planetary exploration and the methods scientists use to explore fundamental questions regarding our place in the universe. Three lecture hours a week for one semester. Geological Sciences 303C and 310C (Topic: Introduction to the Solar System) may not both be counted. May not be counted towards a degree in environmental science, geological sciences, or geosystems engineering and hydrogeology.

### **GEO 303E. Earth in 2100.**

Restricted to non-geological science majors. Examination of the climate system and future impacts of human-induced climate change; discussion of possible mitigation strategies with a focus on energy

resources. Participation in a carbon-reduction challenge. The equivalent of three lecture hours a week for one semester.

### **GEO 405 (TCCN: GEOL 1404). Life through Time.**

The history and development of life, and the processes of change from the early Precambrian era to the present. Three lecture hours and two laboratory hours a week for one semester. Geological Sciences 404C and 405 may not both be counted. Prerequisite: Geological Sciences 401, 303, or 420H with a grade of at least C-.

### **GEO 305E. Energy and the Environment.**

A survey of all forms of current and potential sources of energy, and how these might impact the earth's environment. Three lecture hours and one and one-half laboratory hours a week for one semester. May not be counted toward a degree in environmental science, geological sciences, or geosystems engineering and hydrogeology.

### **GEO 306P. Geology and Sustainability.**

Restricted to environmental science entry-level majors. Examines sustainability and environmental science from an interdisciplinary perspective. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Written consent of instructor.

### **GEO 110C, 210C, 310C. Conference Course.**

Supervised study of selected topics in geological sciences, by individual arrangement with the instructor. Conference course. May not be substituted for any required geological sciences course. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

### **GEO 110T, 210T, 310T. Undergraduate Topics in Geological Sciences.**

Selected undergraduate topics in geological sciences. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **GEO 211. Emerging Scholars in Geological Sciences.**

Introduction to research areas in the geological sciences, with emphasis on the skills needed for success in graduate school and the professional workplace. Four laboratory hours a week for one semester. May not be substituted for any required geological sciences course. Prerequisite: Consent of instructor.

### **GEO 012N. JSG Geosciences Mentors Program - First-year.**

Restricted to first-year students in the Jackson School of Geosciences. Introduction to the various geosciences disciplines and corresponding degree programs and research areas. Emphasis on the skills needed for success in graduate school and the professional workplace, such as interactive sessions with the Jackson School of Geosciences Career Center to address internships, career planning, and job search skills. One lecture hour a week for one semester. May not be counted toward a degree in geological sciences or environmental sciences. Offered on the pass/fail basis only. Prerequisite: Consent of instructor.

### **GEO 114G. Geophysics Colloquium.**

Open to non-geological sciences majors, but registration priority is given to geological sciences majors. Exploration of a variety of problems in modern geophysics. Two lecture hours a week for one semester, and at least one weekend field trip. Geological Sciences 110C (Topic: Geophysics Colloquium) and 114G may not both be counted. May be repeated for credit. Offered on the pass/fail basis only.

### **GEO 416K. Earth Materials.**

Introduction to minerals, mineral study techniques, igneous and metamorphic rocks and ore deposits, and formation processes. Three

lecture hours and four laboratory hours a week for one semester.

Prerequisite: The following with a grade of at least C- in each: Chemistry 301, 302; and Geological Sciences 401, 303, or 420H.

### **GEO 416M. Sedimentary Rocks.**

Description and interpretation of sedimentary rocks in hand specimen and thin section; characteristics of sedimentary rocks deposited in different environments. Three lecture hours and four laboratory hours a week for one semester, with two additional one-day field trips to be arranged. Prerequisite: Geological Sciences 401, 303, or 420H with a grade of at least C-.

### **GEO 316P. Sedimentary Rocks.**

Registration priority given to petroleum and geosystems engineering majors and Energy and Management Certificate Program students. Examines the fundamentals of sedimentary rocks, including siliciclastic grain parameters and mineralogy, sediment transport and sedimentary structures; and carbonate mineralogy and geochemistry, grain and matrix constituents, modern facies, and classification. Reviews the principal siliciclastic and carbonate depositional systems, their process of formation and facies architecture and the role of process and architecture in petrophysical patterns, distribution of permeability and porosity, flow units, reservoir heterogeneities, and hydrocarbon recovery. Three lecture hours a week for one semester. May not be counted toward any degree in environmental science or geological sciences. Prerequisite: Geological Sciences 401, 303, or 420H with a grade of at least C-.

### **GEO 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Geological Sciences.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad office. Credit is recorded as assigned by the study abroad adviser in the Department of Geological Sciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **GEO 420F. Classic Geology in Scotland.**

Introduction to the founding concepts of geology. Students use advanced field technologies while studying the geology of Scotland on all scales of size. The equivalent of four lecture hours a week for one semester, including field exercises in a variety of geological settings. Prerequisite: Geological Sciences 303, 401 or 420H with a grade of at least C-.

### **GEO 420H. Honors Introductory Geology.**

An accelerated introductory course on the composition, structure, and history of the earth. Three lecture hours and two laboratory hours a week for one semester, and several all-day field trips. Only one of the following may be counted: Geological Sciences 401, 303, 420H. Prerequisite: Consent of instructor.

### **GEO 420K. Introduction to Field and Stratigraphic Methods.**

Restricted to Jackson School of Geosciences majors. Field observation of geological processes and study of the mineralogy, petrology, stratigraphy, paleontology, and structural geology of central Texas. Two lecture hours and three laboratory hours a week for one semester, and six weekend field trips. Geological Sciences 420K and 320L may not both be counted. Prerequisite: For general geology majors: Geological Sciences 416K and 416M with a grade of at least C- in each, and credit or registration in Geological Sciences 426P with a grade of at least C-. For others: Geological Sciences 416K and 416M with a grade of at least C- in each.

### **GEO 320L. Introductory Field Geology.**

Designed for non-geological sciences majors. Study of geologic features and processes in the field; emphasizes regional geology of central Texas and techniques of geologic mapping. The equivalent of three lecture hours a week for one semester. Geological Sciences 420K and 320L may not both be counted. May not be counted toward a degree in environmental science, geological sciences, or geosystems engineering and hydrogeology. Prerequisite: Geological Sciences 401 or 303 with a grade of at least C-.

### **GEO 322J. Transitions in the History of Life.**

Introduction to major perturbations in the history of life; specifically, mass extinctions and carbon-cycle perturbations (e.g. ocean anoxic events, hyperthermals, and acidification events). Addresses kill mechanisms (e.g. glaciations, impacts, large igneous provinces) and the subsequent environmental perturbations and ecological ramifications. Covers biotic crises in the past, with an eye to future ecosystem collapse, as well as the environmental and paleobiological responses to these events. Three lecture hours a week for one semester. Geological Sciences 322J and 371T (Topic: Transitions in the History of Life) may not both be counted. May be repeated for credit. Prerequisite: Upper-division standing; Geological Sciences 405 with a grade of at least C-, or consent of instructor.

### **GEO 422K. Paleobiology.**

Registration priority given to environmental science and geological sciences majors. Systematics, biostratigraphy, paleoecology, and evolution of fossil organisms. Three lecture hours and four laboratory hours a week for one semester, with two additional one-day field trips to be arranged. Prerequisite: Biology 311D, Geological Sciences 404C or 405, and 416M with a grade of at least C- in each.

### **GEO 322S. Development and Evolution of the Vertebrate Skeleton.**

Registration priority given to environmental science and geological sciences majors. Introduction to the organization and development of the vertebrate skeleton; survey of vertebrate history. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Consent of instructor.

### **GEO 022T. JSG Geosciences Mentors Program - Transfer.**

Restricted to first semester transfer students in the Jackson School of Geosciences. Introduction to the various geosciences disciplines and corresponding degree programs and research areas. Emphasis on the skills needed for success in graduate school and the professional workplace, such as interactive sessions with the Jackson School of Geosciences Career Center to address internships, career planning, and job search skills. One lecture hour a week for one semester. May not be counted toward a degree in geological sciences or environmental sciences. Offered on the pass/fail basis only. Prerequisite: Consent of instructor.

### **GEO 322V. Morphology of the Vertebrate Skeleton.**

Identification of skeletal elements from the major vertebrate taxa, and aspects of skeletal functional morphology, with emphasis on extant taxa. Subjects include the skeletal systems of fish, amphibians, reptiles, birds, and mammals. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Biology 311C and Geological Sciences 404C or 405 with a grade of at least C- in each, and consent of instructor.

### **GEO 325G. Computational Applications in the Geosciences.**

An introduction to programming in MATLAB and applications to simulation of physical processes and data analysis in the geosciences. Two lecture hours and two laboratory hours a week for one semester. Geological Sciences 325J and 325G may not both be counted.

Prerequisite: Geological Sciences 303 or 401, Mathematics 408D or 408M, and Physics 301 or 303K with a grade of at least C- in each.

### **GEO 325J. Programming in FORTRAN and MATLAB.**

FORTRAN for students without knowledge of a computer programming language: survey of all variable types, loops, arrays, subroutines, and functions; overview of UNIX and MATLAB. Two lecture hours and two laboratory hours a week for one semester. Geological Sciences 325G and 325J may not both be counted. Prerequisite: Mathematics 427J or 427K with a grade of at least C-.

### **GEO 325K. Computational Methods.**

Sampling and aliasing. Review of sinusoids and wave terminology, complex numbers and complex sinusoids, vectors and matrices, the discrete Fourier transform, convolution, the convolution theorem, linear digital filters and transfer functions, random variable concepts and statistics, and least squares estimation. MATLAB is used for homework problems and examples. Two lecture hours and two laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C- in each: Geological Sciences 325J or 325G; Mathematics 427J or 427K; Physics 301 and 316 or Physics 303K and 303L.

### **GEO 325M. Numerical Modeling in the Geosciences.**

Covers numerical solution of dynamical problems arising in the solid earth geosciences. Entails development of individual codes in Matlab and application of codes to understanding heat transfer, wave propagation, elastic, and viscous deformations. Requires familiarity with Matlab. Two lecture hours and two laboratory hours a week for one semester. Prerequisite: Upper-division standing; Geological Sciences 325G, and Mathematics 427J and 427L with a grade of at least C-; or consent of instructor.

### **GEO 425P. Modeling Flow and Transport in Porous Media.**

Introduction to the modeling of flow and transport in porous media with focus on basic dynamic phenomena that occur during single-phase flow and solute transport in heterogeneous porous media. Discussion of the numerical solution of both the elliptic equations governing the flow of groundwater and the hyperbolic equations governing solute transport. Includes a programming project which requires writing a functional numerical simulator. Three lecture hours and one-and-one-half laboratory hours a week for one semester. Prerequisite: Upper-division standing and one of the following with a grade of at least C-: Civil Engineering 311K; Computational Engineering 301; Geological Sciences 325G or 325J; Mathematics 408D or 427L and Mathematics 427J or 427K; Mechanical Engineering 318M; Petroleum and Geosystems Engineering 310.

### **GEO 426P. Igneous and Metamorphic Petrology.**

Mineralogy, geochemistry, and processes of magmatism and metamorphism. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Geological Sciences 416K with a grade of at least C-; credit with a grade of at least C- or registration for Physics 301 and 101L, or 303K and 103M.

### **GEO 327G. Geographic Information System and Global Positioning System Applications in Earth Sciences.**

Restricted to environmental science and geological sciences majors. Theory and practice of geographic information system (GIS) and Global Positioning System (GPS) technologies, and their applications to problems in earth sciences. Laboratories and field trips provide hands-on experience with the collection, mapping, and analysis of geologic and other field data using GPS equipment and GIS software. Topics include map projections; datums and reference frames; cartographic principles; remotely sensed data (satellite and aerial photos, image radar); vector- and raster-based image formats; geospatial data resources; GIS software applications; surveying principles; GPS constellation and data structure;

differential GPS; data logging schemes; GPS postprocessing software; integration of GPS and GIS in mapmaking; extant GIS applications in geology and hydrogeology. Three lecture hours and two laboratory hours a week for one semester, and two weekend field trips. Geological Sciences 327G and 371C (Topic: Geographic Information System and Global Positioning System Applications in Earth Sciences) may not both be counted. Prerequisite: Geological Sciences 420K with a grade of at least C-.

### **GEO 428. Structural Geology.**

Description, classification, and origin of Earth structures. Solution of problems by descriptive geometry, geologic maps, and contouring. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: The following with a grade for at least C-: Geological Sciences 420K; Mathematics 408C or 408L; and Physics 301 and 101L, or Physics 303K and 103M.

### **GEO 328W. Vadose Zone Hydrology.**

Introduction to hydrologic processes occurring in the vadose zone (unsaturated zone), the subsurface region between the ground surface and groundwater. Focus on the physical processes that govern the movement of water in variably saturated porous media, and the exchange of mass and energy at Earth's surface. Explore theoretical and applied aspects, measurement techniques and computational tools, and environmental challenges of the vadose zone. Three lecture hours a week for one semester. Geological Sciences 328W and 371T (Topic: Vadose Zone Hydrology) may not both be counted. Prerequisite: Geological Sciences 346C, 476K, or 376S with a grade of at least C-.

### **GEO 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Geological Sciences.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Geological Sciences. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **GEO 329W. Hydrogeology Cooperative (Geological Sciences).**

Restricted to environmental science and geological sciences majors. Covers the work period of geological sciences students in the Cooperative Education program, which provides supervised work experience by arrangement with the employer and the supervising instructor. Required submission of a final report to the supervising instructor at the conclusion of the program. Forty laboratory hours a week for one semester. The student must repeat the course each work period and must take it twice to receive credit toward the degree; at least one of these registrations must be during a long-session semester. No more than three semester hours may be counted toward the major requirement; no more than six semester hours may be counted toward the degree. The student's first registration must be on the pass/fail basis. May be repeated for credit. Prerequisite: Application to become a member of the Hydrogeology Cooperative (Geological Sciences) Program, and consent of the Associate Dean for Academic Affairs.

### **GEO 330K. Energy Exploration.**

Covers the fundamental elements of the petroleum system, including the origin of source rocks and reservoirs, rock properties, migration of hydrocarbons, and correlation methods for rock formations. During the final weeks of the course, students form exploration teams and work up real subsurface data from the Gulf of Mexico in order to participate in a simulated lease sale. Two lecture hours and two laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C- in

each: Geological Sciences 416M; and Physics 303L and 103N, or Physics 316 and 116L.

### **GEO 331K. Petrology and Plate Tectonics.**

Registration priority given to environmental science and geological sciences majors. Sedimentation, metamorphism, igneous activity, and deformation patterns at rift zones, subduction zones, and transform margins. Three lecture hours a week for one semester. Offered irregularly, as shown in the Course Schedule. Prerequisite: Geological Sciences 428 with a grade of at least C-.

### **GEO 335. Geology and Mineral Resources of Texas.**

Geologic history of the region; local rocks, fossils, and mineral resources; influence of physiography, surface and subsurface water supplies, and energy and mineral resource production on the state economy. Three lecture hours and two laboratory hours a week for one semester. May not be counted toward the Bachelor of Science in Geological Sciences: Option I (General Geology), Option II (Geophysics), or Option III (Hydrogeology). Prerequisite: The following with a grade of at least C-: Geological Sciences 401, 303, or 420H; and 405.

### **GEO 337F. Dynamics of Atmospheres and Oceans.**

Explore fluid dynamics as they apply to the atmosphere, the oceans and the study of climate and weather. Three lecture hours per week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; two semesters of calculus and one semester of calculus-based physics.

### **GEO 338J. Marine Geology.**

A survey of the field of marine geology by exploring the structure and evolution of the ocean basins, oceanic islands, and island arcs, the chemistry of the oceans, the sediments in the marine environments, the products and processes of the land-air-sea interface, and the history of the oceans over geologic time. Three lecture hours a week for one semester. Geological Sciences 338J and 371C (Topic: Marine Geology) may not both be counted. Prerequisite: Upper-division standing.

### **GEO 338T. Marine Tectonics.**

Tectonic processes within the dynamic Earth, with a focus on oceanic structures. Subjects may include fundamentals of plate tectonics; plate motion, driving forces, and mantle convection; evolution of triple junction and plate margins; plate reconstructions; earthquakes and focal mechanisms; structure and geochemistry of the Earth's interior; mantle structure and tomography; rheology and deformation mechanisms in mantle and crust; heat flow, gravity, the geoid, and paleomagnetism; hotspots and mantle plumes; seafloor spreading and oceanic spreading ridges; oceanic transform faults and fracture zones; and subduction zones, volcanic island arcs, and marginal seas. Three lecture hours a week for one semester. Geological Sciences 338T and 371C (Topic: Tectonics I) may not both be counted. Prerequisite: Geological Sciences 428 with a grade of at least C-.

### **GEO 338W. Paleoclimate.**

Introduction to paleoclimatology, the study of Earth's past climate. Examine a broad spectrum of geological archives of climate change including those from the oceans, the land, and the cryosphere. Three lecture hours a week for one semester. Geological Sciences 338W and 371T (Topic: Paleoclimatology) may not both be counted. Prerequisite: Consent of instructor.

### **GEO 339T. Continental Tectonics.**

Tectonic processes, with a focus on continental lithospheric structures. Subjects may include convergent margins, subduction zones, magmatic arcs, and foreland structures; collisional orogenesis, arc-continent collisions, continent-continent collision, and mountain building;

formation of supercontinents; uplift and exhumation; orogenic collapse and extensional tectonics; continental rifting and passive margins; transform margins; and the effect of tectonics on climate and oceanic circulation. Three lecture hours a week for one semester. Geological Sciences 339T and 371C (Topic: Tectonics II) may not both be counted. Prerequisite: Geological Sciences 428 with a grade of at least C- or consent of instructor.

### **GEO 340T. Geoclimatology.**

Examination of the climate records encoded in sedimentary archives through geologic time. Three lecture hours a week for one semester. Geological Sciences 340T and 371C (Topic: Geoclimatology) may not both be counted. May not be substituted for any required geological sciences course. Prerequisite: Chemistry 302, Geological Sciences 416K, and 416M with a grade of at least C- in each.

### **GEO 341. Mineral Resources, Society, and the Environment.**

Registration priority given to majors in the Jackson School of Geosciences. Nature and origin of mineral resources; their discovery, extraction, and uses; and their relationship to global history, economics, and the environment. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Geological Sciences 416K with a grade of at least C-.

### **GEO 341F. Microstructures and Rock Rheology.**

Focuses on processes of deformation operative in the crust and upper mantle, with an emphasis on distinguishing these processes using microstructural analysis and describing them using basic constitutive relationships from rock mechanics. Three lecture hours a week for one semester. Prerequisite: Geological Sciences 428 with a grade of B or higher.

### **GEO 341G. Geomicrobiology.**

Registration priority given to majors in the Jackson School of Geosciences. Geologic and hydrologic controls on subsurface microbial growth, metabolism, and community structure; the geochemical consequences of microbial processes in subsurface settings; and the influence of geology on microbial ecology. Three lecture hours a week for one semester. Geological Sciences 341G and 381G may not both be counted. May not be substituted for any required geological sciences course. Prerequisite: Upper-division standing and consent of instructor.

### **GEO 343Q. Fundamentals and Applications of Inductively Coupled Plasma Mass Spectrometry.**

Explores inductively coupled plasma mass spectrometry (ICP-MS) for trace, minor and major element measurement, and applications in analytical fields. Discussion of fundamentals of technique, applications, and capabilities of ICP-MS through hands-on lab experience. Two lecture hours and one-and-one-half laboratory hours a week for one semester. Geological Sciences 343Q and 371C (Topic: Fundamentals and Applications of ICP-MS) may not both be counted. Prerequisite: Upper-division standing.

### **GEO 344K. Marine Mining and Minerals.**

Same as Marine Science 344K. Overview of seafloor mineral deposits, their exploration, and mining. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Geological Sciences or the Bachelor of Science in Environmental Sciences degrees. Prerequisite: Geological Sciences 401 or 303, 416K, and 416M.

### **GEO 344U. Quantitative Seismic Interpretation.**

Seismic inversion, a tool for reservoir characterization, post- and pre-stack modeling, rock physics and fluid replacement modeling, wavelet estimation and post-stack inversion, AVO and pre-stack inversion,

multiattribute regression and neural network, and net pay estimation. Extensive hands-on training with three-dimensional seismic and well-log data. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **GEO 145E. Professional Ethics in Geosciences.**

Registration priority is given to majors in the Jackson School of Geosciences. Supervised study devoted to the subject of professional ethics and personal integrity in the sciences, with specific subject matter designed to evolve with the science and our society. One lecture hour a week for one semester. Geological Sciences 145E and 171C (Topic: Professional Ethics in Geosciences) may not both be counted. Offered on the letter-grade basis only. Prerequisite: For non-Jackson School of Geosciences majors, consent of instructor.

#### **GEO 346C. Introduction to Physical and Chemical Hydrogeology.**

Basic concepts of fluid flow, surface and subsurface hydrology, aqueous geochemistry, and fluid-rock interaction. Additional subjects include isotope hydrogeology, evolution of seawater, and mineral-solution equilibrium. Three lecture hours a week for one semester. Prerequisite: Chemistry 302 with a grade of at least C- or consent of instructor.

#### **GEO 347D. Global Warming.**

Discussion of the fundamental sciences of global warming, including an active investigation of contemporary climate change issues. Three lecture hours a week for one semester. Geological Sciences 347D and 371C (Topic: Global Warming) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

#### **GEO 347G. Climate System Modeling.**

Studies the basic theory of weather/climate system modeling using state-of-the-art regional climate models in a variety of applications. Includes instruction on how to run models on the TACC supercomputers for scientific applications. Subjects may include paleoclimate, contemporary, and/or future climate prediction based on changes in greenhouse gas concentrations. Three lecture hours a week for one semester. Only one of the following may be counted: Geological Sciences 347G, 371C (Topic: Climate System Modeling), 387G, 391 (Topic: Climate System Modeling). May not be substituted for any required geological sciences course. Prerequisite: Upper-division standing.

#### **GEO 347K. Gems and Gem Minerals.**

Crystallography, occurrence, and identification of gem minerals and materials; artificial gems; simple cutting and polishing; history of gems and gemology. Three lecture hours and two laboratory hours a week for one semester. May not be counted toward a degree in environmental science or geological sciences.

#### **GEO 347P. Climate System Physics.**

Discussion of first-order principles and processes that govern the thermodynamical structure and energy distribution of the atmosphere, ocean, land, and cryosphere and their interaction with the dynamic aspect of the climate system. Three lecture hours a week for one semester. Only one of the following may be counted: Geological Sciences 347P, 371C (Topic: Climate System Physics). May not be substituted for any required geological sciences course. Prerequisite: Upper-division standing; Mathematics 408D or 408M, and Physics 303K with a grade of at least C- in each.

#### **GEO 348K. Marine Geology and Geophysics Field Course.**

Hands-on, team-based instruction in the collection and processing of marine geological and geophysical data along the Gulf of Mexico coast. For Marine Science 148, one lecture hour and one laboratory hour a week for one semester. For Geological Sciences 348K and Marine

Science 348, one lecture hour and four laboratory hours a week for one semester with additional hours to be arranged. Only one of the following may be counted: Geological Sciences 348K, 397F, Marine Science 348 (Topic 2). Fulfills the field experience requirement for some geological sciences degree programs. Students should contact the Department of Geological Sciences before registering. Prerequisite: For geological sciences majors, Geological Sciences 420K or 320L with a grade of at least C-, and consent of instructor; Geological Sciences 416M and 465K are recommended; for others, Marine Science 307 and 354F with a grade of at least C- in each, and consent of instructor.

#### **GEO 348P. Field Methods in Planetary Geology.**

Restricted to geological sciences majors. Field studies combined with remote sensing to support studies of remote imagery from planetary missions. Two lecture hours and two laboratory hours a week for one semester. Three week field trip to the Southwestern United States also required. Geological Sciences 348P and 371C (Topic: Field Methods Planetary Geology) may not both be counted. May not be substituted for any required geological sciences course. Prerequisite: Upper-division standing and consent of instructor.

#### **GEO 349C. Introduction to the Cryosphere.**

Restricted to students in a geosciences major and students pursuing a minor in geosciences. A survey of the cryospheric sciences. Three lecture hours a week for one semester. Geological Sciences 349C and 371T (Topic: Introduction to the Cryosphere) may not both be counted. Prerequisite: Upper-division standing; and the following with a grade of at least C- in each: Chemistry 204, Geological Sciences 401 or 303, Mathematics 408D or 408M; and Physics 303L and 103N or Physics 316 and 116L.

#### **GEO 350D. Ice Dynamics.**

Physics of ice motion, basal processes, glacial hydrology, and unstable flow. Three lecture hours a week for one semester. Geological Sciences 350D and 371C (Topic: Glaciology) may not both be counted. Prerequisite: Upper-division standing; and the following with a grade of at least C-: Chemistry 204, Geological Sciences 401 or 303, and 349C; Mathematics 408D or 408M; and Physics 303L and 103N, or 316 and 116L.

#### **GEO 350L. Topics in Lithosphere and Deep Earth.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Tectonic Geodynamics.** Examine dynamic processes that govern plate tectonics and lithospheric deformation, combining tectonics, structural geology, and geodynamics from the ground up. Geological Sciences 350L (Topic 1) and 371T (Topic: Tectonic Geodynamics) may not both be counted.

#### **GEO 350S. Topics in Subsurface, Surface, and Life.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

#### **GEO 350W. Topics in Water, Climate, and Environment.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Dynamics of Polar Systems.** Examine the fundamental physics that govern dynamics of ice sheets, oceans, and sea ice from a theoretical viewpoint that is supported with as many observations as possible. Geological Sciences 350W (Topic 1) and 371T (Topic: Dynamics of Polar Systems) may not both be counted.

**Topic 4: Statistical Data Analysis.** Examine the statistical, scientific, and computational approaches used to test hypotheses concerning the physics governing observed changes in the Earth System. Explore

concepts in linear algebra and statistics such as regression, least-squares inversion, singular spectral analysis, Bayesian inference, Markov Chain Monte Carlo sampling, and test statistics to survey the existence of a discernable influence of humanity on the observational record of climate.

### **GEO 352P. Python for Geoscience Research.**

Explore the Python 3 programming language and its application to scientific research. Examine basic Python and common scientific Python libraries such as numpy, pandas, matplotlib, datetime. Three lecture hours a week for one semester. Geological Sciences 352P and 371T (Topic: Python in Geoscience Resrch) may not both be counted.

### **GEO 354. Physics of Earth.**

Examines the kinematics and dynamics of the solid Earth as well as its evolution through time. Observations from multiple geophysical techniques are reviewed and applied towards understanding the planet. Three lecture hours a week for one semester. Prerequisite: The following with a grade of at least C- in each: Mathematics 427J or 427K, and Physics 315 and 115L.

### **GEO 355G. Geodynamics of the Lithosphere and Mantle.**

Explores continuum dynamics problems that can serve to form a physical understanding of the tectonic and convective processes that shape our planet. Geared toward all undergraduate majors and graduate students from the Earth sciences and related fields in the natural sciences including physics, computer science, and engineering. The equivalent of two lecture hours and one-and-one-half laboratory hours a week for one semester. Geological Sciences 355G and 371T (Topic: Geodynamics) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Geological Sciences 401 or 303 with a grade of at least C-; or consent of instructor.

### **GEO 455S. Introduction to Remote Sensing for Geoscientists.**

Examine the fundamentals of acquiring, processing, and interpreting remote sensing data. Explore the development of skills in the use and analysis of remote sensing data. Survey the physics of electromagnetic radiation and its interaction with geologic materials; common techniques for remote sensing; science goals and instruments onboard ongoing and planned remote sensing missions; and techniques for analysis of remote sensing data. Three lecture hours and two laboratory hours a week for one semester. Geological Sciences 455S and 471T (Topic: Intro Remote Sensing Geosci) may not both be counted. Prerequisite: Upper-division standing.

### **GEO 356S. Ins and Outs of Subduction Zones.**

Explore an overview of subduction zones, including sites of lithospheric scale recycling, critical to understanding the chemical evolution of the Earth's crust and mantle, volcanism, earthquakes, and orogenesis. Includes the thermal and seismic structure of subduction zones, volatile and geochemical cycling, seismicity, mantle wedge dynamics, and volcanism. Three lecture hours a week for one semester. Geological Sciences 356S and 371T (Topic: Ins & Outs of Subduction Zones) may not both be counted. Prerequisite: Upper-division standing and consent of instructor.

### **GEO 358K. Volcanology.**

Registration priority given to majors in the Jackson School of Geosciences. Ash deposits, lava flows, eruption processes; prediction and mitigation of volcanic hazards. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Geological Sciences 416K with a grade of at least C-, or consent of instructor.

### **GEO 660. Field Geology.**

Restricted to geological sciences majors. Methods of geologic mapping with topographic maps and aerial photographs. Field studies include measuring sections, interpretation of stratigraphy, structure, environments of deposition of various sedimentary rocks, and the origin and petrology of igneous and metamorphic rocks. Students must register for this course during the first summer registration period. Given for six weeks each summer in Colorado, New Mexico, and other western states. Prerequisite: Geological Sciences 420K and 428 with a grade of at least C- in each.

### **GEO 360G. Construction and Interpretations of 3-D Stratigraphy.**

From Earth surface to subsurface, examines three-dimensional volumes of basin-filling stratigraphy to explore how depositional landscapes are preserved in the sedimentary record and how sedimentary deposits can be analyzed to produce quantitative reconstructions of past environmental states. Data includes both laboratory and industry-grade volumes of stratigraphy. Intended for Earth scientists requiring a quantitative understanding of how the structure of depositional landscapes is translated into subsurface stratigraphy. Three lecture hours and one laboratory hour a week for one semester. Geological Sciences 360G and 371C (Topic: Construction and Interpretation of 3-D Stratigraphy) may not both be counted. May not be substituted for any required geological sciences or environmental sciences course. Prerequisite: Upper-division standing; Geological Sciences 416M or 354 with a grade of at least C-.

### **GEO 661. Geophysics Field Camp.**

Restricted to geophysics majors. Field studies for geophysics majors, including seismic, magnetic, electrical, gravity, and other techniques; related data processing and interpretation. Each half requires three consecutive weeks of fieldwork. Geological Sciences 661A is offered either between the spring semester and the summer session or in the summer session; Geological Sciences 661B is offered in the summer session. Students may take Geological Sciences 661 for University credit while enrolled in the Los Alamos National Laboratory SAGE program. May be used in place of Geological Sciences 660 to fulfill the requirements for the Bachelor of Science in Geological Sciences (Option II: Geophysics). Prerequisite: Geological Sciences 420K, 465K, and 365P with a grade of at least C- in each.

### **GEO 363S. Sedimentary Basin Analysis.**

Quantitative and applied analysis of basin subsidence and sediment accumulation. Consider theoretical basin evolution due to flexural, thermal, dynamic, and fault-related subsidence. Analyze selected basin systems. Three lecture hours a week for one semester. Geological Sciences 363S and 371T (Topic: Sedimentary Basin Analysis) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **GEO 364P. Physical Oceanography.**

Basic concepts for understanding and describing the large-scale circulation of the ocean. Covers measurement methods, properties of seawater, description of the global ocean's mean state and variability, introductory dynamics including balanced motions, wind-driven and abyssal circulation, wave motions, air-sea interactions, sea level science, and the ocean's role in climate. Three lecture hours a week for one semester. Geological Sciences 364P and 371T (Topic: Physical Oceanography) may not both be counted. May not be substituted for any required geological sciences course. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and consent of instructor.

### **GEO 465K. Seismic Exploration.**

Seismic theory, including body and surface waves, attenuation, rays, reflection and transmission coefficients, principles of synthetic seismogram calculations, seismic imaging principles, reflection data processing methods, rock physics overview, seismic attributes overview, and seismic exploration field methods. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Mathematics 427L; and Physics 315 and 115L with a grade of at least C- in each.

### **GEO 365N. Seismic Data Processing.**

Reduction of seismic data from field records to final geologic images, using real data sets and open-source data analysis software. Two lecture hours and two laboratory hours a week for one semester. Prerequisite: Upper-division standing; and Geological Sciences 325K and 465K with a grade of at least C- in each.

### **GEO 365P. Potential Field Applications in Geophysics.**

Introduction to the theory, measurement, and application of gravity and magnetic and electric fields to exploration and global-scale problems. Three lecture hours a week for one semester. Prerequisite: The following with a grade of at least C- in each: Mathematics 427J or 427K, 427L, and Physics 315 and 115L.

### **GEO 365Q. Geomorphology Process and Form.**

Explores how Earth surface processes combine to shape landscapes through erosion and deposition. Includes discussion of open channel flow, sediment transport, fluvial and hillslope processes, and tectonic controls on landscape evolution. Three lecture hours a week for one semester, with several field trips to be arranged. Geological Sciences 365Q and 371C (Topic: Geomorphology: Landscape Process, Form, and Evolution) may not both be counted. May not be substituted for any required geological sciences course. Prerequisite: Upper-division standing, and Mathematics 408C or 408L with a grade of at least C-.

### **GEO 366M. Mathematical Methods in Geophysics.**

A survey of mathematics for geoscientists that includes infinite series, complex variables, linear algebra, integral transforms, ordinary and partial differential equations, tensor analysis, and probability and statistics. Three lecture hours a week for one semester. Prerequisite: Mathematics 427L with a grade of at least C-.

### **GEO 366P. Planetary Geology and Geophysics.**

Introduction to planetary geology, with an emphasis on geophysical observations of terrestrial planets in our solar system. Discussion of missions, instruments, and techniques, and incorporation of mission data in student projects. Includes field trip to study planetary analog sites. The equivalent of three lecture hours a week for one semester. Geological Sciences 366P and 371C (Topic: Planetary Geology & Geophysics) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and consent of instructor.

### **GEO 367M. Morphodynamics and Quantitative Stratigraphy.**

Explores development of numerical tools to quantitatively understand sediment transport and stratigraphic development in sedimentary basins. Focus on applications of principles in fluid mechanics, sediment transport, and depositional mechanics to one-dimensional and quasi-two dimensional numerical modeling of sediment morphodynamics in depositional settings such as river deltas, carbonate platforms, and submarine fans. Requires development of geometrical and morphodynamic models as research tools to understand gathered data. Three lecture hours per week for one semester. Geological Sciences 367M and 371T (Topic: Morphodynamics and Quantitative Stratigraphy) may not both be counted. Prerequisite: Geological Sciences 416M with a grade of at least C-.

### **GEO 468K. Geophysics for Geological Sciences Majors.**

Registration priority given to majors in the Jackson School of Geosciences. A survey of seismic, magnetic, gravitational, and other geophysical tools and their application to exploration and global-scale problems. Three lecture hours and two laboratory hours a week for one semester. May not be counted toward the Bachelor of Science in Geological Sciences, Option II: Geophysics. Prerequisite: Mathematics 408D; and Physics 303L and 103N, or 316 and 116L with a grade of at least C- in each.

### **GEO 369E. Evolution of Reef Ecosystems.**

Introduction to the paleobiology, sedimentology, and oceanography of reef ecosystems throughout the geological record as well as the environmental and evolutionary factors that controlled the expansion and collapse of the carbonate ecosystems (and others). Explore ocean chemistry, how organisms biomineralize a skeleton, symbiosis, ecology, mass extinctions, and both current and future threats to reef health. Three lecture hours a week for one semester. Geological Sciences 369E and 371T (Topic: Evolution of Reef Ecosystems) may not both be counted. Prerequisite: Upper-division standing; Geology 405 with a grade of at least C-, or consent of instructor.

### **GEO 369G. Geophysical Measurements and Monitoring.**

Explore measurement and error theory, motivations, methods, and techniques to measure field and lab physical quantities; theory and design of sensors and instruments; microcontroller programming; and 3D design and printing. Covers microcontroller-based sensors and the design and development of measurement tools for geophysical, environmental, and geotechnical research. Covers field and lab methods to measure water level, pressure, conductivity, stress and deformation, water flow, and vibrations. Explores uncertainties and error propagation using practical application in geoscience problems. Entails designing an ARDUINO-based sensor, to be used to measure physical parameters in the field and produce a final report. Three lecture hours a week for one semester. Geological Sciences 369G and 371T (Topic: Geophysicl Measrmnt/Monitrng) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **GEO 370E. Ecohydrology and Biometeorology.**

Study the terrestrial biosphere and the ways ecosystems influence the water cycle. Investigate water, carbon, and energy fluxes within the Earth system from a hands-on experimental approach and through exposure to land-surface and climate models. Includes hydrology, Earth science, environmental engineering, ecology, biology, and climatology. Three lecture hours a week for one semester. Geological Sciences 370E and 371T (Topic: Ecohydrology/Biometeorology) may not both be counted. Prerequisite: Upper-division standing.

### **GEO 370K. Sedimentology.**

Registration priority given to majors in the Jackson School of Geosciences. Processes of sediment formation, transportation, and deposition; textures, structures, and facies of sedimentary rocks. Three lecture hours a week for one semester, and two one-day field trips. Offered irregularly. Prerequisite: Geological Sciences 420K with a grade of at least C-.

### **GEO 370Q. Morphodynamics and Quantitative Stratigraphy.**

Explore numerical tools useful for quantitatively assessing sediment transport and stratigraphic development in sedimentary basins. Apply principles in fluid mechanics, sediment transport, and depositional mechanics to one-dimensional and quasi-two-dimensional numerical modeling of sediment morphodynamics in various depositional settings such as river deltas, carbonate platforms, and submarine fans. Develop geometrical and morphodynamic models as research tools to understand data collected from laboratory experiments and in the field.

Three lecture hours a week for one semester. Geological Sciences 370Q and 371C (Topic: Morphodynamics) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **GEO 171C, 271C, 371C. Conference Course.**

Restricted to majors in the Jackson School of Geosciences. Supervised study of selected topics in geological sciences, by individual arrangement with the department and instructor. Conference course. May not be substituted for any required geological sciences course. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

### **GEO 171H. Honors Research Methods I.**

Restricted to students in the Geological Sciences Honors Program. Preparation for independent research projects through exposure to current research programs, facilities, personnel, and projects in the Jackson School of Geosciences. Includes selecting research topics, mentors, and supervisors; preparing research proposals; conducting research activities; and presenting research results. One lecture hour a week for one semester.

### **GEO 371S. Geological Sciences Research Methods.**

Restricted to geological sciences majors. Supervised research project completed in collaboration with faculty supervisor and related research group members either as a one-semester research activity in preparation for a senior thesis project. Three lecture hours a week for one semester, with additional hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Geological Sciences 416K, 416M, and 420K with a grade of at least C-.

### **GEO 171T, 271T, 371T, 471T, 571T, 671T. Undergraduate Seminar in Geological Sciences.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester; additional hours may be required for some topics. May not be substituted for any required geological sciences courses. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor; additional prerequisites may vary with the topic.

### **GEO 172H. Honors Research Methods II.**

Restricted to students in the Geological Sciences Honors Program. Preparation for independent research projects through exposure to current research programs, facilities, personnel, and projects in the Jackson School of Geosciences. Includes selecting research topics, mentors, and supervisors; preparing research proposals; conducting research activities; and presenting research results. One lecture hour a week for one semester. Prerequisite: Geological Sciences 171H with a grade of at least B-.

### **GEO 372S. Geochemical Problem Solving with Atoms and Ions.**

Discussion of mass spectrometers, which are analytical balances that operate at molecular and atomic levels, used for gathering compositional data (both isotopic and elemental). Explores conversion of sample molecules into charged particles (ions), and measurement according to mass-to-charge ratio to assess chemical identity and abundance. Introduction to inorganic mass spectrometry methods and applications to the Earth sciences, surveying key modalities: TIMS, ICP-MS, LA-ICP-MS, MC-ICP-MS, and IRMS. Examines techniques in generating and critically evaluating high-quality data, and research. Two lecture hours and three lab hours per week for one semester. Geological Sciences 372S and 371T (Topic: Geochemical Problem Solving with Atoms and Ions) may not both be counted. Prerequisite: Upper-division standing and consent of instructor.

### **GEO 173H. Honors Research Methods III.**

Restricted to students in the Geological Sciences Honors Program. Preparation for independent research projects through exposure to current research programs, facilities, personnel, and projects in the Jackson School of Geosciences. Includes selecting research topics, mentors, and supervisors; preparing research proposals; conducting research activities; and presenting research results. One lecture hour a week for one semester. Prerequisite: Geological Sciences 171H and 172H with a grade of at least B- in each.

### **GEO 376C. Isotope Geology.**

Overview of the principles of stable and radiogenic isotope geochemistry. Subjects include mass spectrometry, geochronology and thermochronology, cosmogenic nuclides, radiogenic geochemistry, isotopic fractionation, traditional and non-traditional stable isotope geochemistry and its applications to the hydrologic cycle, low-temperature geochemistry, magmatic and metamorphic processes, thermometry, fluid-rock interactions, tectonics, crust-mantle evolution, and extraterrestrial materials. Three lecture hours a week for one semester. Only one of the following may be counted: Geological Sciences 371C (Topic: Isotope and Environmental Geology Research), 376C, 388L. Prerequisite: Chemistry 302, and Mathematics 408D or 408M with a grade of at least C- in each, and consent of instructor.

### **GEO 376E. Environmental Isotope Geochemistry.**

Restricted to students in the Jackson School of Geosciences. The application of the isotope and trace element geochemistry of natural waters and sediments to studies of the hydrologic cycle. Stable, radiogenic, and cosmogenic isotopes are used as tracers of the evolution of groundwater, surface water, and ocean water. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Chemistry 302, 204, Geological Sciences 416K, 416M, 346C; Mathematics 408D or 408M; and Physics 303L and 103N with at least a C- in each.

### **GEO 476K. Groundwater Hydrology.**

Registration priority given to majors and minors in the Jackson School of Geosciences. Introduction to subsurface hydrology, emphasizing geological controls on groundwater flow; quantitative methods of analyzing aquifer systems; regional hydrology; water quality and pollution. Three lecture hours and one and one-half laboratory hours a week for one semester, with several local field trips to be arranged. Prerequisite: Geological Sciences 346C, Mathematics 408D, or Mathematics 408M with a grade of at least C-.

### **GEO 376L. Field Methods in Groundwater Hydrology.**

Registration priority given to hydrogeology majors. Introduction to field methods, including geophysics, pump tests, stream gauging, well-logging, water sampling, and mapping. Students must register for this course during the first summer registration period. An intensive three-week course meeting eight hours a day, Monday through Friday, and four hours on Saturday: lectures, laboratory exercises, and field exercises; nightly homework involving map exercises, reduction of field data, report preparation; Saturdays devoted to report presentation, review sessions, and local field trips. Offered between the spring semester and the summer session. Prerequisite: Geological Sciences 476K with a grade of at least C-.

### **GEO 476M. Aqueous Geochemistry.**

An introduction to aqueous geochemistry and contaminant hydrogeochemistry; topics include basic thermodynamics, kinetics, rock-water interactions, and solute transport. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Geological Sciences 346C, 476K, or 376S with a grade of at least C- in each.

### **GEO 376S. Physical Hydrology.**

Modern conceptual and methodological approaches to hydrological science: qualitative assessment of hydrological processes, quantitative representation, approaches to measurement, and treatment of uncertainty. Major components of the hydrological cycle: precipitation, snow and snowmelt, infiltration, soil moisture, evapotranspiration, and runoff and their link to the coupled-earth system. Three lecture hours a week for one semester. Prerequisite: Geological Sciences 346C; or Mathematics 408D or 408M with a grade of at least C-.

### **GEO 376T. High-Temperature Geochemistry.**

Study of the composition, origin, and chemical and physical evolution of the earth and its interior. Examines the links between the fields of geochemistry and tectonics, igneous petrology, geophysics, and other areas of inquiry. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; Geological Sciences 416K or 426P with a grade of at least C-; or consent of instructor.

### **GEO 476W. Hydrogeophysics.**

Application of geophysical methods in hydrogeology. Modules include method theory and hydrogeological applications; using instruments in the field; and analysis of data, interpretation, and hydrogeological insights. Class discussions; field exercises and written field exercise summaries; individual and group reports. Previous coursework and/or experience in hydrogeology and geophysics is recommended. Four lecture hours a week for one semester, with field work hours to be arranged. Geological Sciences 371C (Topic: Hydrogeophysics) and 476W may not both be counted. May not be substituted for any required geological sciences course. Prerequisite: Consent of instructor.

### **GEO 377K. Applied Karst Hydrogeology.**

The study of karst landforms, processes, flow systems, and water resources. Geologic controls, natural resources, aquifer recharge and discharge, system evolution, geochemistry/water quality, tracing methodologies, geophysical methods, and modeling are covered with an emphasis on collecting and interpreting field data. Three lecture hours a week for one semester, with additional fieldwork hours to be arranged. Course fulfills three hours of field course requirement for Bachelor of Science in Geological Sciences (Option III: Hydrogeology) degree program. Geological Sciences 371C (Topic: Applied Karst Hydrogeology) and 377K may not both be counted.

### **GEO 377P. Physical Climatology.**

Investigates the nature of earth's climate and examines the physical processes that maintain the climate system. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Upper-division standing, Computer Science 303E, Geography 301K, Mathematics 408D or 408M, and Physics 303K with a grade of at least C- in each.

### **GEO 679G. Special Studies in Geophysics.**

Restricted to geophysics majors. Special research projects, field studies, or geophysical/industrial internship. Assigned reading with written and oral report. Three lecture hours a week for two semesters. May be used instead of Geological Sciences 660 in fulfilling the requirements for the Bachelor of Science in Geological Sciences (Option II: Geophysics). Prerequisite: Consent of instructor.

### **GEO 379H. Honors Thesis in Geological Sciences.**

Restricted to students in the Geological Sciences Honors Program. Supervised research project resulting in an honors thesis with an oral defense. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be counted as three of the six geological sciences senior elective hours. Prerequisite: Geological Sciences 171H, 172H, and 173H with a grade of at least B- in each.

### **GEO 679J. Internship in Hydrogeology.**

Restricted to hydrogeology majors. Special hydrogeological studies under the joint supervision of industry professionals and faculty members. Students present a written report. Forty hours a week for one semester. May be used in place of Geological Sciences 660 in fulfilling the requirements for the Bachelor of Science in Geological Sciences (Option III: Hydrogeology). Prerequisite: Geological Sciences 476K with a grade of at least C-, and consent of instructor.

### **GEO 279K, 379K. Special Studies in Advanced Geological Sciences.**

Special emphasis on recent developments in geosciences. Conference course. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

### **GEO 479M. Mammalogy.**

Restricted to biology, geological sciences, and anthropology majors. Surveys the biology and evolutionary history of mammals. Introduction to the diversity of living mammals through the study of mammalian ecology, behavior, morphology, and taxonomy. Laboratory work focuses on the characters diagnosing the major mammalian clades and identifying the common recent mammals of Texas using skins and recent osteological specimens. Fossils and the fossil record of mammals. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Upper-division standing.

### **GEO 379N, 679N. Geosciences Internship.**

Restricted to geological sciences and environmental science majors. Work experience in geological sciences under the joint supervision of industry professionals (the employer) and a supervising faculty member. Requires submission of a final report to the supervising faculty member at the end of the semester. Internship position must be on file with JSG Career Services. For 379N, twenty laboratory hours a week for one semester. For 679N, forty laboratory hours a week for one semester. Prerequisite: Consent of instructor.

### **GEO 379S. Geological Sciences Senior Thesis.**

Restricted to geological sciences majors. Second course in a two-course sequence focused on supervised student research and preparation of a final report on research activities. Three lecture hours a week for one semester, with additional hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, and Geological Sciences 371S with a grade of at least C-.

## **Graduate Courses**

### **GEO 380C. Advanced Structural Geology.**

Origin of earth structures, solution of advanced structural problems, newest techniques, field techniques, and field problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **GEO 380F. Seismology II.**

Basic seismology theory and its application to the study of the interior of the Earth (crust, mantle, and core), earthquakes, and plate tectonics. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Mathematics 408C or the equivalent.

### **GEO 380G. Construction and Interpretation of 3-D Stratigraphy.**

Uses three-dimensional volumes of basin-filling stratigraphy to explore how depositional landscapes are preserved in the sedimentary record and how sedimentary deposits can be analyzed to produce quantitative reconstructions of past environmental states. Four lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 380J. Mathematical Methods in Geophysics.**

A survey of mathematics for geoscientists that includes infinite series, complex variables, linear algebra, integral transforms, ordinary and partial differential equations, tensor analysis, and probability and statistics. Three lecture hours a week for one semester. Geological Sciences 366M and 380J may not both be counted. Prerequisite: Graduate standing.

### **GEO 380N. Sequence Stratigraphy.**

Organization and interpretation of stratigraphic successions in time-bounded units of genetically related strata. Sequence stratigraphy, as a predictive branch of stratigraphic analysis, provides insight into the origin of the entire spectrum of siliciclastic, carbonate, and evaporite sediments from shallow to deep settings. Laboratory component involves the interpretation of sequences using outcrop measured sections, core data, wireline log sections, field trips, and 2D and 3D seismic data from modern and ancient settings. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Graduate standing, and Geological Sciences 416M and 465K or their equivalents.

### **GEO 380P. Advanced Reservoir Characterization: Carbonates.**

Advanced instruction in the integration of geologic and engineering methods for building 3-D reservoir models of carbonate reservoirs. Four lecture hours a week for one semester. Offered in alternate years. Geological Sciences 380P and 391 (Topic: Advanced Reservoir Characteristics: Carbonates) may not both be counted. Prerequisite: Graduate standing.

### **GEO 380R. Dynamics of Sedimentary Systems I.**

Explores the fundamental concepts of transport systems at the Earth's surface, focusing on principles and quantitative aspects of fluid flow, sediment transport, and bedforms, as well as atmospheric and oceanic circulation, complex systems, and the integration of small-scale processes in developing quantitative stratigraphic models. Four lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 380S. Dynamics of Sedimentary Systems II.**

Explores the fundamental concepts of transport systems at the Earth's surface, focusing on principles and quantitative aspects of fluid flow, sediment transport, and bedforms, as well as atmospheric and oceanic circulation, complex systems, and the integration of small-scale processes in developing quantitative stratigraphic models. Four lecture hours a week for one semester. Prerequisite: Graduate standing and Geological Sciences 380R.

### **GEO 380T. Geoclimatology.**

Examines climate records encoded in sedimentary archives through geologic time. Three lecture hours a week for one semester. Prerequisite: Graduate standing or consent of instructor.

### **GEO 381C. Structural Petrology.**

Deformation processes from atomic to macroscopic level, resultant textures and fabrics, and conditions required to produce such deformation. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing and an undergraduate course in structural geology and petrology.

### **GEO 381E. Brittle Structure.**

Quantitative analysis of folding, faulting, and fracturing at all scales in the upper crust, with emphasis on cross-section construction, subsurface mapping, and fracture analysis. Three lecture hours a week

for one semester, and several field trips. Prerequisite: Graduate standing and a course in structural geology.

### **GEO 381F. Microstructures and Rock Rheology.**

Focuses on processes of deformation operative in the crust and upper mantle, with an emphasis on distinguishing these processes using microstructural analysis and describing them using basic constitutive relationships from rock mechanics. Three lecture hours a week for one semester. Geological Sciences 381F and 391 (Topic: Microstructures and Rock Rheology) may not both be counted. Prerequisite: Graduate standing.

### **GEO 381G. Geomicrobiology.**

Geologic and hydrologic controls on subsurface microbial growth, metabolism, and community structure; the geochemical consequences of microbial processes in subsurface settings; and the influence of geology on microbial ecology. Three lecture hours a week for one semester. Prerequisite: Graduate standing in geological sciences, or graduate standing and consent of instructor.

### **GEO 381J. Marine Geology.**

Survey of the field of marine geology by exploring the structure and evolution of the ocean basins, oceanic islands, and island arcs, the chemistry of the oceans, the sediments in the marine environments, the products and processes of the land-air-sea interface, and the history of the oceans over geologic time. Three lecture hours a week for one semester. Geological Sciences 381J and Geological Sciences 391 (Topic: Marine Geology) may not both be counted. Prerequisite: Graduate standing.

### **GEO 381P. Plate Margins.**

Study of the tectonics of the earth. Topics include history of early concepts, ocean spreading ridges and ophiolites, rifting, core complexes, passive margins, subduction zones, trenches, volcanic arcs, collisional orogenesis, and transform margins. Three lecture hours a week for one semester. Geological Sciences 381P and 391 (Topic: Plate Margins) may not both be counted. Prerequisite: Graduate standing in geological sciences.

### **GEO 381R. Regional Studies in Mineral Resources Geology.**

Geologic evolution of a region, with emphasis on factors that control the origin of selected mineral resources. Study area varies according to the interests of participants and other factors. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **GEO 381S. Tectonic Problems.**

Explore the origin of regional structural features, complex and controversial structures, and the tectonic control of ore deposits. Three lecture hours a week for one semester. Prerequisite: Graduate standing in geological sciences and consent of instructor.

### **GEO 381T. Marine Tectonics.**

Tectonic processes within the dynamic Earth, with a focus on oceanic structures. Subjects may include fundamentals of plate tectonics; plate motion, driving forces, and mantle convection; evolution of triple junction and plate margins; plate reconstructions; earthquakes and focal mechanisms; structure and geochemistry of the Earth's interior; mantle structure and tomography; rheology and deformation mechanisms in mantle and crust; heat flow, gravity, the geoid, and paleomagnetism; hotspots and mantle plumes; seafloor spreading and oceanic spreading ridges; oceanic transform faults and fracture zones; and subduction zones, volcanic island arcs, and marginal seas. Three lecture hours a week for one semester. Geological Sciences 338T and 371C (Topic: Tectonics I) may not both be counted. May not be substituted for any

required geological sciences course. Prerequisite: Graduate standing in geological sciences, or graduate standing and consent of instructor.

### **GEO 382C. Groundwater Field Methods.**

Basic field methods used in evaluation of groundwater conditions, with emphasis on field interpretation and on hands-on experience with geophysical, geochemical, stream-gauging, and pump test methods. Forty-five hours of field and laboratory work in a three-week period. Prerequisite: Graduate standing, and Geological Sciences 391C or consent of instructor.

### **GEO 382D. Crustal Geofluids.**

Designed to provide a technical foundation for exploring how fluids drive fundamental geologic processes in sedimentary basins. Includes characterizing pressure and stress in sedimentary basins, exploring the origin of overpressure through theory and characterization, and examining how pressure and stress couple. Problems include how sedimentation generates overpressure, how hydrocarbons are trapped in the subsurface, how mud volcanoes form, how submarine landslides are generated, and the origin of methane hydrates. Three lecture hours per week for one semester, with a four-day field trip to be arranged. Geological Sciences 382D and 391 (Topic: Crustal Fluids) may not both be counted. Prerequisite: Graduate standing.

### **GEO 382F. Fractured Rock Hydrology and Mechanics.**

Introduction to the physics of flow in fractured rocks and soils, fracture mechanics, fracture skins, analysis of solute transport, and methods of characterizing and modeling fractured systems. Class field trips are an integral part of the class. Three lecture hours a week for one semester, with additional hours to be arranged. Prerequisite: Graduate standing and consent of instructor; previous coursework in advanced calculus (differential equations, vector spaces and Fourier series), and hydrogeology.

### **GEO 382G. Fluid Physics for Geologists.**

Restricted to students in the Department of Geological Sciences. Flow and transport phenomena within an earth science context. Includes extensive use of Maple, MATLAB, and COMSOL Multiphysics. Three lecture hours a week for one semester. Prerequisite: Graduate standing, previous coursework in advanced calculus (differential equations, vector spaces and Fourier series), and Geological Sciences 391C, 383D or 383E; non-majors also require consent of instructor.

### **GEO 382M. Programming in FORTRAN and MATLAB.**

FORTRAN for students without knowledge of a computer programming language: survey of all variable types, loops, arrays, subroutines, and functions; overview of UNIX and MATLAB. Two lecture hours and two laboratory hours a week for one semester. Geological Sciences 382M and 391 (Topic: Programming in FORTRAN and MATLAB) may not both be counted. Prerequisite: Graduate standing, and Mathematics 408D or the equivalent.

### **GEO 382P. Physical Oceanography.**

Basic concepts for understanding and describing the large-scale circulation of the ocean. Covers measurement methods, properties of seawater, description of the global ocean's mean state and variability, introductory dynamics including balanced motions, wind-driven and abyssal circulation, wave motions, air-sea interactions, sea level science, and the ocean's role in climate. Three lecture hours a week for one semester. Geological Sciences 382P and 391 (Topic: Physical Oceanography) may not both be counted. Prerequisite: Graduate standing.

### **GEO 382S. Physical Hydrology.**

Comprehensive treatment of modern conceptual and methodological approaches to hydrological science. Combines qualitative understanding of hydrological processes with quantitative representation, approaches to measurement, and treatment of uncertainty. Major components of the hydrological cycle. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Graduate standing in geological sciences, or graduate standing and consent of instructor.

### **GEO 382T. Continental Tectonics.**

Tectonic processes, with a focus on continental lithospheric structures. Subjects may include convergent margins, subduction zones, magmatic arcs, and foreland structures; collisional orogenesis, arc-continent collisions, continent-continent collision, and mountain building; formation of supercontinents; uplift and exhumation; orogenic collapse and extensional tectonics; continental rifting and passive margins; transform margins; and the effect of tectonics on climate and oceanic circulation. Three lecture hours a week for one semester. Geological Sciences 382T and 391 (Topic: Tectonics II) may not both be counted. May not be substituted for any required geological sciences course. Prerequisite: Graduate standing in geological sciences, or graduate standing and consent of instructor.

### **GEO 382W. Hydrogeophysics.**

Application of geophysical methods in hydrogeology. Modules include method theory and hydrogeological applications; using instruments in the field; and analysis of data, interpretation, and hydrogeological insights. Class discussions; field exercises and written field exercise summaries; individual and group reports. Three lecture hours a week for one semester, with fieldwork hours to be arranged. Geological Sciences 382W and 391 (Topic: Hydrogeophysics) may not both be counted. Prerequisite: Graduate standing and consent of instructor; previous coursework and/or experience in hydrogeology and geophysics is recommended.

### **GEO 383. Clastic Depositional Systems.**

River-, wave-, tide-, and gravity-driven processes are examined in modern depositional systems and considered in relation to sediment-flux, base-level, and autogenic changes. Application to the development of dynamic facies models and alluvial-shoreline-shelf-deepwater transitions in stratigraphic data. The equivalent of four lecture hours a week for one semester, including a four to five day field seminar. Prerequisite: Graduate standing in geological sciences.

### **GEO 383C. Geology and Hydrology.**

Study of the interaction of fluids with the rock matrix, with emphasis on the role of hydrology in geologic processes and the role of geology in affecting hydrologic processes. Three lecture hours a week for one semester, and several field trips. Offered irregularly. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and a course in hydrogeology or hydrology.

### **GEO 383D. Numerical Methods I: Computational Methods in Geological Sciences.**

A survey of geophysical data analysis methods, with a focus on time series, including sampling and aliasing, convolution and correlation, statistics, linear digital filters, properties and applications of the discrete Fourier transform, and least squares. Instruction in MATLAB and Fortran and solution of data analysis problems using these two languages. Two lecture hours and two laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 383E. Digital Methods in Hydrogeology.**

Applications of mathematical software to earth science problems, with emphasis on hydrogeologic problems. Includes a brief introduction

to numerical methods. Three lecture hours a week for one semester. Prerequisite: Graduate standing, previous coursework in advanced calculus (differential equations, vector spaces and Fourier series), and Geological Sciences 391C.

### **GEO 383F. Holocene-Pleistocene Sedimentology and Stratigraphic-Structural Evolution of the Caicos Platform.**

Investigation of the broad range of depositional environments of the Caicos Platform through mapping exercises using state of the art digital imagery and lidar datasets, lab exercises, core workshops and a week-long field trip. Study of the evolution of the Caicos Platform carbonate system from modern sediments to complex stratigraphic records including grain types, sedimentary structures, and facies successions from the tidal flats, salinas, high-energy shoreline, and grainy back reef environments. Two lecture hours and two laboratory hours a week for one semester; field trip to Caicos Platform also required. Geological Sciences 383F and 291 (Topic: Sedimentol of Caicos Platform) may not both be counted. Prerequisite: Graduate standing, and Geological Sciences 383M or 383N.

### **GEO 383G. Geochemistry of Sedimentary Rocks.**

The hydrologic cycle, the early diagenesis, carbonate sediments, chemical sediments, and burial processes. Three lecture hours a week for one semester, with laboratory hours to be arranged. Offered irregularly. May be repeated for credit. Prerequisite: Graduate standing.

### **GEO 383K. Paleocology.**

Relationships of fossil animals and plants to their environments and to the sedimentary deposits in which they occur. Three lecture hours a week for one semester, with one optional field trip. Prerequisite: Graduate standing.

### **GEO 383L. Petrography of Sandstones.**

Interpretation of microscale features of sandstones to decipher the paleogeographic, tectonic, and postdepositional controls on sandstone composition and texture. Examines the effects of chemical and mechanical processes in the subsurface on sandstone properties, including porosity. Two lecture hours and three laboratory hours a week for one semester. Offered irregularly. Prerequisite: Graduate standing in geological sciences.

### **GEO 383M. Petrology of Carbonates and Evaporites.**

Description and interpretation of carbonate and evaporite rock deposition and paragenesis. Essentials of petrology; petrography, including identification of grain types, cement types, recrystallization, and dolomitization; and porosity evolution. Global geochemical signals in carbonate sediments, and geochemical processes of early and late diagenesis. Three lecture hours and two laboratory hours a week for one semester. Offered irregularly. Prerequisite: Graduate standing.

### **GEO 383N. Depositional Systems: Carbonates and Evaporites.**

Analysis of carbonate and evaporite depositional systems from sedimentary structures, faunal and ichnofaunal associations, grain types, vertical and lateral facies successions within time-significant packages, and sediment body geometries. Three lecture hours and three laboratory hours a week for one semester. Offered irregularly. Prerequisite: Graduate standing and consent of instructor.

### **GEO 383P. Potential Field Applications in Geophysics.**

Introduction to the theory, measurement, and application of gravity and magnetic and electric fields to exploration and global-scale problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 383R. Reservoir Geology and Advanced Recovery.**

Analysis of geologic controls on composition and architecture of oil and gas reservoirs, with emphasis on reservoir heterogeneity resulting from depositional and diagenetic processes. Geological and petrophysical determinants of fluid flows and behavior. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing; and credit or registration for Geological Sciences 380N, 383, and 383N, or consent of instructor.

### **GEO 383S. Sedimentary Basin Analysis.**

Quantitative and applied study of basin subsidence and sediment accumulation. The first half of the course considers theoretical basin evolution due to flexural, thermal, dynamic, and fault-related subsidence. The second half of the course involves analysis of selected basin systems and includes student research projects and presentations on assigned topics. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 383T. Tectonic and Climatic Interactions in Foreland Basins.**

Integration of recent advances in foreland basins and adjacent orogenic belts, with emphasis on sedimentation, quantitative basin models, regional and global climate change, and the geometry and kinematics of fold-thrust belts. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **GEO 383U. Dynamic Field Stratigraphy.**

Field-based evaluation of the dynamics of the stratigraphic record, with implications for sedimentary, tectonic, and climatic processes. Three lecture hours per week for one semester. Geological Sciences 383U and 391 (Topic: Dynamic Field Stratig: Andes) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **GEO 384C. Seismology I.**

Seismic, gravity, magnetic, electrical, and electromagnetic methods of exploration for petroleum and minerals. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 384D. Physics of Earth.**

Geophysics of the whole Earth: seismic methods of inferring Earth structure, chemical makeup of Earth, tides and rotational variations, geomagnetism, heat flow, earthquakes, and seismicity. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 384E. Seismic Migration and Inversion.**

Use of the acoustic or elastic wave equation to construct subsurface images in seismic processing. Different methods of solution and data domains employed in routine applications. Investigates integral, implicit, and explicit finite differences and Fourier methods for the imaging and inversion of seismic reflection data. Three lecture hours a week for one semester. Offered irregularly. Prerequisite: Graduate standing in geological sciences.

### **GEO 384F. Finite Element Methods in Geophysics.**

Numerical methods for solution of partial differential equations arising in continuum geophysics and geodynamics. Focuses on finite element methods and their application to heat conduction, viscous flow, wave propagation, and transport problems in geophysics. Four lecture hours a week for one semester. Geological Sciences 384F and 391 (Topic: Computational Methods for Geophysics) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **GEO 384G. Subsurface Mapping and Petroleum Workstations.**

Introduction to basin analysis, subsurface mapping, and petroleum exploration using a workstation. Subjects may include common tectonic settings of petroleum basins, seismic stratigraphy, structural styles, and petroleum systems. Workstation techniques include well log editing, lithology interpretation, correlation of tectonic events, integration of seismic and subsurface well data, interpretation of two- and three-dimensional seismic reflection data and structure, and isopach and seismic attribute mapping. Four lecture hours a week for one semester. Geological Sciences 384G and 391 (Topic: Introduction to Petroleum Workstations) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **GEO 384H. Multidimensional Data Analysis in Geosciences.**

Extracting multidimensional patterns from data, data reconstruction and registration, signal and noise separation. Elements of geostatistics, linear estimation, image analysis, and multidimensional sparsity-promoting transforms with applications to large-scale geoscientific data. Three lecture hours a week for one semester. Geological Sciences 384H and 391 (Topic: Multidimensional Data Analysis) may not both be counted. Prerequisite: Graduate standing.

### **GEO 384M. Inverse Theory.**

Vector spaces; model parameter estimation methods from inaccurate, insufficient, and inadequate measurements; linear, quasi-linear, and highly non-linear problems; local and global optimization methods. Emphasis on practical problem solving. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Graduate standing and knowledge of linear algebra, basic calculus, and statistics.

### **GEO 384N. Rock Physics.**

Focuses on how rocks, pore fluids, and physical conditions of temperature, stress, diagenesis, and geological processes impact wave propagation, with an emphasis on how laboratory and theoretical results can be applied to field data. Presentation of case studies that outline strategies for seismic interpretation, site characterization, and recovery monitoring. Upscaling seismic and rock properties from the laboratory scale to borehole and reservoir scales. Multidisciplinary approaches to combination of geostatistical and stochastic methods, seismic-to-rock property transforms, and geologic information for reservoir characterization. Three lecture hours a week for one semester. Geological Sciences 384N and 391 (Topic: Rock Physics) may not both be counted. Prerequisite: Graduate standing.

### **GEO 384R. Geophysical Time Series Analysis.**

Surveys the following topics in time series analysis with geophysical applications: Fourier transforms, linear digital filters and their design, frequency domain analysis methods (power and coherence spectrum estimation), least squares and related methods with time series applications. MATLAB is used extensively. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Geological Sciences 325K or 383D or the equivalent.

### **GEO 384S. Seismic Data Processing.**

Reduction of seismic data from field records to final geologic images, using real data sets and open-source data analysis software. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Graduate standing, and Geological Sciences 384R.

### **GEO 384T. Seismic Lithology.**

How seismic waves propagating through earth materials respond to relevant rock, reservoir, and fluid properties in the subsurface, and how seismic data recorded on the surface are used to describe, discriminate, and estimate these rock, reservoir, and fluid properties in the subsurface.

Three lecture hours and one and one-half laboratory hours a week for one semester. Geological Sciences 384T and 391 (Topic: Seismic Lithology and Exploration Geophysics) may not both be counted. Prerequisite: Graduate standing.

### **GEO 384U. Quantitative Seismic Interpretation.**

Seismic inversion, a tool for reservoir characterization, post- and pre-stack modeling, rock physics and fluid replacement modeling, wavelet estimation and post-stack inversion, AVO and pre-stack inversion, multiattribute regression and neural network, and net pay estimation. Extensive hands-on training with three-dimensional seismic and well-log data. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 384W. Seismic Imaging.**

Seismic reflection imaging for visualizing the interior of Earth's upper crust. Study of fundamental imaging concepts from a unified geometrical point of view. Hands-on practical experience with imaging seismic data in an open-source software environment. Three lecture hours and one laboratory hour a week for one semester. Geological Sciences 384W and 391 (Topic: Wavefield Imaging) may not both be counted. Prerequisite: Graduate standing; programming experience and familiarity with seismology are helpful.

### **GEO 185G. Geophysics Colloquium.**

Open to non-geological sciences majors, but registration priority is given to geological sciences majors. Exploration of a variety of problems in modern geophysics. Two lecture hours a week for one semester, and at least one weekend field trip. Geological Sciences 185G and 194 (Topic: Geophysics Colloquium) may not both be counted. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **GEO 385Q. Geomorphology Process and Form.**

Explores how Earth surface processes combine to shape landscapes through erosion and deposition. Emphasis on open channel flow, sediment transport, fluvial and hillslope processes, and tectonic controls on landscape evolution. Three lecture hours a week for one semester, with several field trips to be arranged. Geological Sciences 385Q and 391 (Topic: Geomorphology: Landscape Process, Form, and Evolution) may not both be counted. May not be substituted for any required geological sciences course. Prerequisite: Graduate standing in geological sciences.

### **GEO 485S. Introduction to Remote Sensing for Geoscientists.**

Examine the fundamentals of acquiring, processing, and interpreting remote sensing data. Explore the development of skills in the use and analysis of remote sensing data. Survey the physics of electromagnetic radiation and its interaction with geologic materials; common techniques for remote sensing; science goals and instruments onboard ongoing and planned remote sensing missions; and techniques for analysis of remote sensing data. Three lecture hours and two laboratory hours a week for one semester. Geological Sciences 485S and 491 (Topic: Intro Remote Sensing Geosci) may not both be counted. Prerequisite: Graduate standing.

### **GEO 386. Metamorphic Petrology.**

Metamorphism as a record of processes in the Earth's deep crust; phase equilibria among minerals and fluids at elevated temperatures and pressures; tectonometamorphic regimes; petrographic interpretation of metamorphic mineral assemblages and textures; and secular evolution of metamorphic patterns during Earth's history. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**GEO 386E. Economic Geology.**

Origin of economic mineral concentrations within the context of their overall geologic settings; geologic aspects of economic evaluation, mining, and mineral processing; and mineral exploration. Three lecture hours and two laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**GEO 386G. Geographic Information System and Global Positioning System Applications in Earth Sciences.**

Theory and practice of geographic information system (GIS) and Global Positioning System (GPS) technologies, and their applications to problems in earth sciences. Laboratories and field trips provide hands-on experience with the collection, mapping, and analysis of geologic and other field data using GPS equipment and GIS software. Subjects include map projections; datums and reference frames; cartographic principles; remotely sensed data (satellite and aerial photos, image radar); vector- and raster-based image formats; geospatial data resources; GIS software applications; surveying principles; GPS constellation and data structure; differential GPS; data logging schemes; GPS postprocessing software; integration of GPS and GIS in mapmaking; extant GIS applications in geology and hydrogeology. Three lecture hours and two laboratory hours a week for one semester, and two weekend field trips. Offered in the fall semester only. Geological Sciences 386G and 391 (Topic: Geographic Information System and Global Positioning System Applications in Earth Sciences) may not both be counted. Prerequisite: Graduate standing.

**GEO 386K. Igneous Petrology.**

Origin, differentiation, and crystallization of igneous rocks. Three lecture hours and three laboratory hours a week for one semester. Offered in alternate years. May be repeated for credit. Prerequisite: Graduate standing, and Geological Sciences 390M or the equivalent.

**GEO 386R. Geology of Earth Resources.**

Same as Energy and Earth Resources 396 (Topic 5). Study of geologic, economic, societal, and environmental issues related to the production and consumption of energy, metal, industrial mineral, and water resources. Emphasizes the descriptive geology and origin of earth resources within the context of their overall geologic settings. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Energy and Earth Resources 396 (Topic: Geology of Earth Resources), 396 (Topic 5), Geological Sciences 386R, 391 (Topic: Geology of Earth Resources). May not be counted toward a graduate degree in geological sciences or petroleum engineering. Prerequisite: Graduate standing.

**GEO 386S. Ins and Outs of Subduction Zones.**

Explore an overview of subduction zones, including sites of lithospheric scale recycling, critical to understanding the chemical evolution of the Earth's crust and mantle, volcanism, earthquakes, and orogenesis. Includes the thermal and seismic structure of subduction zones, volatile and geochemical cycling, seismicity, mantle wedge dynamics, and volcanism. Three lecture hours per week for one semester. Geological Sciences 386S and 391 (Topic: Ins & Outs of Subduction Zones) may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate-standing.

**GEO 386T. Topics in Volcanology.**

Explores the physical and chemical processes involved in the eruption, transport, and deposition of volcanic material through the use and study of field measurements, fluid dynamics, petrology, and geophysical observations. Three lecture hours a week for one semester. Geological Sciences 386T and 391 (Topic: Volcanology) may not both be counted. Prerequisite: Graduate standing.

**GEO 387C. Aqueous Geochemistry.**

Introduction to the chemistry of water in the subsurface. Topics include basic thermodynamics and kinetics of rock-water interaction, acid-base theory, redox, and coordination chemistry. Three lecture hours and two laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor; previous graduate-level coursework in hydrogeology and at least two semesters of college chemistry.

**GEO 387D. Climate Dynamics.**

Studies features of the climate system and the basics of climate system dynamics. Subjects may include climate variability, radiation and heat budgets, atmospheric and ocean circulation systems, and the physics of climate change. Three lecture hours a week for one semester. Geological Sciences 387D and 391 (Topic: Climate System Science) may not both be counted. May not be substituted for any required geological sciences course. Prerequisite: Graduate standing and two semesters of calculus and one semester of physics.

**GEO 387E. Environmental Organic Geochemistry.**

Environmental and organic chemistry of organic contaminants in groundwater and soils. Three lecture hours and one laboratory hour a week for one semester. Offered irregularly. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**GEO 387F. Dynamics of Atmospheres and Oceans.**

Study of fluid dynamics as applied to the atmosphere and oceans. The fundamental equations that govern atmospheric and ocean circulations are derived from first principles. Applications to the study of climate and weather. Three lecture hours a week for one semester. Geological Sciences 387F and 391 (Topic: Dynamics of Atmospheres and Oceans) may not both be counted. May not be substituted for any required geological sciences course. Prerequisite: Graduate standing and two semesters of calculus and one semester of calculus-based physics.

**GEO 387G. Climate System Modeling.**

Studies the basic theory of weather/climate system modeling using state-of-the-art regional climate models in a variety of applications. Includes instruction on how to run models on the TACC supercomputers for scientific applications. Subjects may include paleoclimate, contemporary, and/or future climate prediction based on changes in greenhouse gas concentrations. Three lecture hours a week for one semester. Only one of the following maybe counted: Geological Sciences 347G, 371C (Topic: Climate System Modeling), 387G, 391 (Topic: Climate System Modeling). May not be substituted for any required geological sciences course. Prerequisite: Graduate standing, basic knowledge of Unix, and programming experience in Fortran.

**GEO 387H. Physical Climatology.**

Investigates the nature of Earth's climate and examines the physical processes that maintain the climate system. Topics include the energy balance, the hydrological cycle, general atmosphere circulation, and how they all interact and vary at various spatial and temporal scales. Discusses human-induced modifications to the climate system, such as urbanization, anthropogenic global warming, desertification, and tropical deforestation. Focuses on descriptive, analytical, programming, and modeling skills. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Computer Science 303E, Geography 301K, Mathematics 408D, and Physics 303K.

**GEO 387P. Climate System Physics.**

Discussion of first-order principles and processes that govern the thermodynamical structure and energy distribution of the atmosphere, ocean, land, and cryosphere and their interaction with the dynamic aspect of the climate system. Three lecture hours a week for one

semester. Geological Sciences 387P and 391 (Topic: Climate System Physics) may not both be counted. May not be substituted for any required geological sciences course. Prerequisite: Graduate standing.

### **GEO 388G. Global Biogeochemical Cycles.**

Examination of the major reservoirs, fluxes, and processes controlling the distribution of biologically active chemical constituents of the earth. The importance of these biogeochemical cycles in the geologic past and the effects of human perturbation of these cycles. Three lecture hours a week for one semester. Geological Sciences 388G and 391 (Topic: Global Biogeochemical Cycles) may not both be counted. Prerequisite: Graduate standing in geological sciences, or graduate standing and consent of instructor.

### **GEO 388H. Environmental Isotope Geochemistry.**

The application of the isotope and trace element geochemistry of natural waters and sediments to studies of the hydrologic cycle. Stable, radiogenic, and cosmogenic isotopes are used as tracers of the evolution of groundwater, surface water, and ocean water. Three lecture hours a week for one semester, with laboratory hours to be arranged. May be repeated for credit. Prerequisite: Graduate standing.

### **GEO 388L. Isotope Geology.**

Overview of the principles of stable and radiogenic isotope geochemistry. Covers mass spectrometry, geochronology and thermochronology, cosmogenic nuclides, radiogenic geochemistry, isotopic fractionation, traditional and non-traditional stable isotope geochemistry and its applications to the hydrologic cycle, low-temperature geochemistry, magmatic and metamorphic processes, thermometry, fluid-rock interactions, tectonics, crust-mantle evolution, and extraterrestrial materials. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 388P. Paleontological Laboratory Techniques.**

Overview and application of laboratory techniques used for in-depth investigation of the systematics of vertebrates. Three lecture hours a week for one semester. Geological Sciences 388P and 391 (Topic: Paleontological Laboratory Techniques) may not both be counted. Prerequisite: Graduate standing in geological sciences.

### **GEO 388R. Radiogenic Isotopes and Tectonic Processes.**

Application of radiogenic isotopes to tectonic problems. Particular attention is given to methods and tools in thermochronology and geochronology for understanding thermal histories, uplift rates, slip rates, timing relationships, landform development, and provenance. Three lecture hours a week for one semester. Offered in alternate years. Prerequisite: Graduate standing.

### **GEO 388T. High-Temperature Geochemistry.**

An introduction to the application of isotope and trace element geochemistry in the modern geological sciences, with emphasis on problems related to the origin and evolution of the Earth's interior. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 389E. Evolution of Reef Ecosystems.**

Introduction to the paleobiology, sedimentology, and oceanography of reef ecosystems throughout the geological record as well as the environmental and evolutionary factors that controlled the expansion and collapse of the carbonate ecosystems (and others). Explore ocean chemistry, how organisms biomineralize a skeleton, symbiosis, ecology, mass extinctions, and both current and future threats to reef health. Three lecture hours a week for one semester; required field trip date(s) to be arranged. Geological Sciences 389E and 391 (Topic: Evolution of Reef Ecosystems) may not both be counted. Prerequisite: Graduate standing.

### **GEO 389J. Transitions in the History of Life.**

Exploration of the transitions in the history of life, including mass extinctions, climactic perturbations, and environmental changes and their impact on the Earth's biota. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **GEO 389K. Paleontologic Nomenclature and Techniques.**

Rules of nomenclature: preparation, illustration, and description of Paleozoic invertebrate fossils. Three lecture hours a week for one semester. Prerequisite: Graduate standing in geological sciences and consent of instructor.

### **GEO 389M. Vertebrate Paleontology: Mammals.**

Comparative osteology and phylogenetic history of the living and extinct mammals. Two lecture hours and four laboratory hours a week for one semester. Offered in alternate years. Prerequisite: Graduate standing in geological sciences and Geological Sciences 389V.

### **GEO 389P. Digital Methods in Morphology.**

The use of digital multimedia for analysis of paleontological problems, with emphasis on three-dimensional high-resolution CT data. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Graduate standing in geological sciences.

### **GEO 389R. Morphology of the Vertebrate Skeleton.**

Identification of skeletal elements from the major vertebrate taxa, and aspects of skeletal functional morphology, with emphasis on extant taxa. Topics include the skeletal systems of fishes, amphibians, reptiles, birds, and mammals. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing in geological sciences, and Geological Sciences 405 or the equivalent; or consent of instructor.

### **GEO 389S. Systematics and Paleontology.**

Seminar course focusing on current issues in digital/instructional technologies. Provides students with an opportunity to explore, discuss, and demonstrate issues designing, acquiring, manipulating, authoring, and publishing digital content. Students work toward completing a specific project. Three lecture hours a week for one semester. Offered in alternate years. Geological Sciences 389S and 391 (Topic: Systematics and Paleontology) may not both be counted. Prerequisite: Graduate standing in geological sciences and consent of instructor.

### **GEO 389V. Vertebrate Paleontology.**

Comparative osteology and phylogenetic history of the living and extinct fishes, amphibians, and reptiles. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing in geological sciences, and Biology 349 or the equivalent.

### **GEO 390D. Seismology III.**

Advanced treatment of elastic wave propagation in heterogeneous anisotropic media, vectors and tensors, Christoffel equation, group and phase velocities, invariant embedding (reflectivity), finite difference, finite elements, and spectral elements. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Geological Sciences 380F or the equivalent.

### **GEO 390E. Ecohydrology and Biometeorology.**

Study the terrestrial biosphere and the ways ecosystems influence the water cycle. Investigate water, carbon, and energy fluxes within the Earth system from a hands-on experimental approach and through exposure to land-surface and climate models. Includes hydrology, Earth science, environmental engineering, ecology, biology, and climatology. Three lecture hours a week for one semester. Geological Sciences 390E and

391 (Topic: Ecohydrology/Biometeorology) may not both be counted. Prerequisite: Graduate standing.

### **GEO 390M. Thermodynamics of Geologic Processes.**

Applications of physical chemistry to natural systems; interactions of minerals, solutions, and the atmosphere. Three lecture hours a week for one semester. Offered in alternate years. Prerequisite: Graduate standing and consent of instructor.

### **GEO 390Q. Morphodynamics and Quantitative Stratigraphy.**

Explore numerical tools useful for quantitatively assessing sediment transport and stratigraphic development in sedimentary basins. Apply principles in fluid mechanics, sediment transport, and depositional mechanics to one-dimensional and quasi-two-dimensional numerical modeling of sediment morphodynamics in various depositional settings such as river deltas, carbonate platforms, and submarine fans. Develop geometrical and morphodynamic models as research tools to understand data collected from laboratory experiments and in the field. Three lecture hours a week for one semester. Geological Sciences 390Q and 391 (Topic: Morphodynamics) may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **GEO 390R. Analytical Methods: Electron-Microbeam Techniques.**

An introduction to electron-microbeam instruments and their applications in the earth sciences. Lectures on relevant theory and concepts are supplemented by hands-on experience. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing in geological sciences or graduate standing and consent of instructor.

### **GEO 390T. Tectonic Problems.**

Restricted to students in the Jackson School of Geosciences. Explore cutting-edge and debated concepts and processes governing plate tectonics, the unifying concept of solid Earth Sciences, in both the marine and continental realms. Investigate and test the validity of processes-oriented concepts in subduction, rift, and collision tectonics settings. Study regional and global tectonic problems through an interdisciplinary structural, petrological, geochemical, sedimentological, and geophysical approach. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **GEO 191, 291, 391, 491, 591, 791, 891, 991. Seminar in Geological Sciences.**

For each semester hour of credit earned, the equivalent of one class hour a week for one semester; additional hours may be required for some topics. Offered irregularly. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in geological sciences; additional prerequisites vary with the topic.

### **GEO 391C. Physical Hydrogeology.**

Geological controls on groundwater resources; evaluation of aquifers, geothermal systems, and contamination problems; natural hazards caused by human use of groundwater. Three lecture hours a week for one semester, with discussion hours to be arranged. Prerequisite: Graduate standing and concurrent enrollment in Geological Sciences 191W.

### **GEO 391D. Regional Tectonics.**

Development of tectonic theory culminating in the new global tectonics, and application of theory to selected orogenic areas. Three lecture hours a week for one semester. Offered irregularly. Prerequisite: Graduate standing in geological sciences.

### **GEO 391K. Applied Karst Hydrogeology.**

The study of karst landforms, processes, flow systems, and water resources. Geologic controls, natural resources, aquifer recharge and discharge, system evolution, geochemistry/water quality, tracing methodologies, geophysical methods, and modeling are covered with an emphasis on collecting and interpreting field data. Three lecture hours a week for one semester, with additional fieldwork hours to be arranged. Geological Sciences 391 (Topic: Applied Karst Hydrogeology) and 391K may not both be counted. Prerequisite: Graduate standing, and Geological Sciences 391C or consent of instructor.

### **GEO 391Q. Topics in Quaternary Geology.**

Interdisciplinary analysis of Quaternary chronology, environments, climatic changes, and erosional-depositional processes. Three lecture hours a week for one semester. Offered irregularly. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **GEO 391S. Current Topics in Paleobiology.**

Seminar reviewing recent publications on evolutionary and ecologic theories applied to the fossil record. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 191W. Aquifer Testing.**

Techniques of aquifer evaluation, including pumping tests, laboratory techniques, field mapping, and numerical analysis. Two laboratory hours a week for one semester. Geological Sciences 191 (Topic: Aquifer Testing) and 191W may not both be counted. Prerequisite: Graduate standing, and concurrent enrollment in Geological Sciences 391C or consent of instructor.

### **GEO 392F. Fundamentals and Applications of ICP-MS.**

Explores inductively coupled plasma mass spectrometry (ICP-MS) for trace, minor and major element measurement, and applications in analytical fields. Covers fundamentals of technique, applications, and capabilities of ICP-MS through hands-on lab experience. Two lecture hours and one-and-one-half laboratory hours a week for one semester. Geological Sciences 391 (Topic: Fundamentals/Applic of ICP-MS) and 392F may not both be counted. Prerequisite: Graduate standing; and working knowledge of MS Excel, including manipulation of rows and columns of data, application of basic algebraic functions to derive statistics, sorting and filtering of data.

### **GEO 392M. Modern Geological Sciences.**

General discussion of the entire spectrum of geological sciences. Three lecture hours a week for one semester. Offered in the fall semester only. Geological Sciences 391 (Topic: Modern Geological Sciences) and 392M may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in geological sciences, or graduate standing and consent of instructor.

### **GEO 392P. Python for Geoscience Research.**

Explore Python 3 programming language for application to scientific research. Examine basic Python and common scientific Python libraries such as numpy, pandas, matplotlib, datetime. Three lecture hours a week for one semester. Geological Sciences 391 (Topic: Python in Geosci Resrch) and 392P may not both be counted. Prerequisite: Graduate standing.

### **GEO 392S. Geochemical Problem Solving with Ions Atoms.**

Overview of mass spectrometers, which are analytical balances that operate at molecular and atomic levels, used for gathering compositional data (both isotopic and elemental). Explores conversion of sample molecules into charged particles (ions), and measurement according to mass-to-charge ratio to assess chemical identity and abundance. Introduction to inorganic mass spectrometry methods and applications

to the Earth sciences, surveying key modalities: TIMS, ICP-MS, LA-ICP-MS, MC-ICP-MS, and IRMS. Examines techniques in generating and critically evaluating high-quality data, and research. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing; and for non-geological sciences majors, consent of instructor.

### **GEO 193. Technical Lecture Series.**

Attendance required of all graduate students in geological sciences. Two lecture hours a week for one semester. Additional hours may be required. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **GEO 194, 294, 394, 494, 594, 694, 794, 894, 994. Research in Geological Sciences.**

Restricted to graduate students in geological sciences. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. Offered every semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in geological sciences.

### **GEO 494P. Modeling Flow and Transport in Porous Media.**

Introduction to the modeling of flow and transport in porous media with focus on basic dynamic phenomena that occur during single-phase flow and solute transport in heterogeneous porous media. Discuss the numerical solution of both the elliptic equations governing the flow of groundwater and the hyperbolic equations governing solute transport. Includes a programming project which requires writing a functional numerical simulator. Three lecture hours and one and one-half laboratory hours per week for one semester. Prerequisite: Mathematics 408D or 427L; Mathematics 427J or 427K; one of the following with a grade of at least C-: Petroleum and Geosystems Engineering 310, Civil Engineering 311K, Mechanical Engineering 318M, Computational Engineering 301, or Geological Sciences 325G or 325J.

### **GEO 395D. Ice Dynamics.**

Physics of ice motion, basal processes, glacial hydrology, and unstable flow. Three lecture hours a week for one semester. Geological Sciences 391 (Topic: Ice Dynamics) and 395D may not both be counted. Prerequisite: Graduate standing.

### **GEO 395S. Seismic Structural Analysis.**

Addresses interpretation of 2D and 3D seismic reflection data for unraveling the geometry and kinematic evolution of crustal structures, principally in sedimentary rocks. Foundational subjects include understanding how structures manifest themselves in seismic data, and approaches to effective interpretation and kinematic analysis. Covers structural systems including extensional, fold and thrust belts, salt tectonics, and inversion. Applied subjects include computer workstation interpretation and analysis approaches, determination of geologic and basin history, fault system analysis, fault permeability structure, and geomechanical evaluations such as in situ stress determination and application to induced seismicity risk. Three lecture hours per week for one semester. Only one of the following may be counted: Geological Sciences 191, 391 (Topic: Seismic Structural Analysis), 395S Seismic Structural Analysis. Prerequisite: Graduate standing.

### **GEO 396G. Geophysical Measurements and Monitoring.**

Explore measurement and error theory; motivations, methods, and techniques to measure field and lab physical quantities; theory and design of sensors and instruments; microcontroller programming; and 3D design and printing. Covers microcontroller-based sensors and the design and development of measurement tools for geophysical, environmental, and geotechnical research. Covers field and lab methods to measure water level, pressure, conductivity, stress and deformation,

water flow, and vibrations. Explores uncertainties and error propagation using practical application in geoscience problems. Three lecture hours a week for one semester. Geological Sciences 391 (Topic: Geophysical Measurements/Monitoring) and 396G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **GEO 397F. Marine Geology and Geophysics Field Course.**

Hands-on, team-based instruction in the collection and processing of marine geological and geophysical data along the Gulf of Mexico coast. Includes classroom, laboratory, and field components in Austin and at sea. Offered between the spring semester and the summer session; limited class meetings may begin in the spring semester. Only one of the following may be counted: Geological Sciences 348K, 397F, Marine Science 348 (Topic 2: Marine Geology and Geophysics Field Course). Prerequisite: Graduate standing.

### **GEO 397L. Transitions in the History of Life.**

Introduction to major perturbations in the history of life; specifically, mass extinctions and carbon-cycle perturbations (e.g. ocean anoxic events, hyperthermals, and acidification events). Examine kill mechanisms (e.g. glaciations, impacts, large igneous provinces) and the subsequent environmental perturbations and ecological ramifications. Explore biotic crises in the past, with an eye to future ecosystem collapse, as well as the environmental and paleobiological responses to these events. Three lecture hours a week for one semester. Geological Sciences 391 (Topic: Transitions in the History of Life) and 397L may not both be counted. Prerequisite: Graduate standing.

### **GEO 397M. Morphodynamics and Quantitative Stratigraphy.**

Covers development of numerical tools to quantitatively understand sediment transport and stratigraphic development in sedimentary basins. Focus on applications of the principles in fluid mechanics, sediment transport, and depositional mechanics to one-dimensional and quasi-two dimensional numerical modeling of sediment morphodynamics in various depositional settings such as river deltas, carbonate platforms, and submarine fans. Requires development of geometrical and morphodynamic models as research tools to understand gathered data. Three lecture hours per week for one semester. Geological Sciences 397M and 391 (Topic: Morphodynamics/Quant Stratigraphy) may not both be counted. Prerequisite: Graduate standing.

### **GEO 397P. Field Methods in Planetary Geology.**

Field studies combined with remote sensing to support studies of remote imagery from planetary missions. Two lecture hours and two laboratory hours a week for one semester; three week field trip to the Southwestern United States also required; offered in summer session only. Geological Sciences 391 (Topic: Field Methods Planetary Geology) and 397P may not both be counted. Prerequisite: Graduate standing.

### **GEO 297Q. Preparing Future Faculty.**

Examine the academic and research career track, including a number of different career paths. Participate in a workshop covering all application materials for these kinds of jobs. Two lecture hours a week for one semester. Geological Sciences 297Q and 291 (Topic: Preparing Future Faculty) may not both be counted. Prerequisite: Graduate standing.

### **GEO 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in geological sciences and consent of the graduate adviser; for 698B, Geological Sciences 698A.

### **GEO 398G. Geodynamics of the Lithosphere and Mantle.**

Explores continuum dynamics problems that can serve to form a physical understanding of the tectonic and convective processes that shape our planet. Geared toward graduate students from the Earth sciences and related fields in the natural sciences including physics, computer science, and engineering. The equivalent of two lecture hours and one-and-one-half laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **GEO 398L. Topics in Lithosphere and Deep Earth.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Tectonic Geodynamics.** Examine dynamic processes that govern plate tectonics and lithospheric deformation, combining tectonics, structural geology, and geodynamics from the ground up. Geological Sciences 391 (Topic: Tectonic Geodynamics) and 398L (Topic 1) may not both be counted.

### **GEO 398M. Numerical Modeling in the Geosciences.**

Covers numerical solution of dynamical problems arising in the solid earth geosciences. Entails development of individual codes in Matlab and application of codes to understanding heat transfer, wave propagation, elastic, and viscous deformations. Requires familiarity with Matlab. Two lecture hours and two laboratory hours a week for one semester. Prerequisite: Graduate standing and knowledge of programming in Matlab, vector calculus, and ordinary differential equations.

### **GEO 398P. Planetary Geology and Geophysics.**

Introduction to planetary geology, with an emphasis on geophysical observations of terrestrial planets in our solar system. Discussion of missions, instruments, and techniques, and incorporation of mission data in student projects. Includes field trip to study planetary analog sites. The equivalent of three lecture hours a week for one semester. Geological Sciences 391 (Topic: PLANETARY GEOLOGY/GEOPHYSICS) and 398P may not both be counted. Prerequisite: Graduate standing.

### **GEO 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in geological sciences and consent of the graduate adviser.

### **GEO 398S. Topics in Subsurface, Surface, and Life.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **GEO 298T. Supervised Teaching in Geological Sciences.**

Open to graduate students engaged in laboratory instruction under close supervision of the course instructors. Two lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **GEO 398W. Topics in Water, Climate, and Environment.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Vadose Zone Hydrology.** Introduction to hydrologic processes occurring in the vadose zone (unsaturated zone), the subsurface region between the ground surface and groundwater. Focus on the physical processes that govern the movement of water in variably saturated porous media, and the exchange of mass and energy at Earth's surface. Explore theoretical and applied aspects, measurement techniques and computational tools, and environmental challenges

of the vadose zone. Geological Sciences 391 (Topic: Vadose Zone Hydrology) and 398W (Topic 1) may not both be counted.

**Topic 2: Paleoclimate.** Introduction to paleoclimatology, the study of Earth's past climate. Examine a broad spectrum of geological archives of climate change including those from the oceans, the land, and the cryosphere. Geological Sciences 398W (Topic 2) and 391 (Topic: Paleoclimatology) may not both be counted.

**Topic 3: Dynamics of Polar Systems.** Examine the fundamental physics that govern dynamics of ice sheets, oceans, and sea ice from a theoretical viewpoint that is supported with as many observations as possible. Geological Sciences 398W (Topic 3) and 391 (Topic: Dynamics of Polar Systems) may not both be counted.

**Topic 4: Statistical Data Analysis.** Examine the statistical, scientific, and computational approaches used to test hypotheses concerning the physics governing observed changes in the Earth System. Explore concepts in linear algebra and statistics such as regression, least-squares inversion, singular spectral analysis, Bayesian inference, Markov Chain Monte Carlo sampling, and test statistics to survey the existence of a discernable influence of humanity on the observational record of climate. Geological Sciences 391 (Topic: Statistical Data Analysis) and 398W (Topic 4) may not both be counted.

### **GEO 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

## **German Courses**

### **German: GER**

#### **Lower-Division Courses**

##### **GER 604. Accelerated First-Year German.**

Six lecture hours a week for one semester, with optional laboratory available. Only one of the following may be counted: German 601C, 604, 506. Only one of the following may be counted: German 601C, 604, 507, 507R, 508K.

##### **GER 506. First-Year German I.**

Basic training in grammatical patterns and usage of modern German. Five lecture hours a week for one semester. Only one of the following may be counted: German 601C, 604, 506.

##### **GER 507. First-Year German II.**

Advanced training in grammatical patterns and usage of modern German. Five lecture hours a week for one semester. Only one of the following may be counted: German 601C, 604, 507, 507R, 508K. Prerequisite: German 506 with a grade of at least C.

##### **GER 612. Accelerated Second-Year German: Readings in Modern German.**

Grammar review, composition, readings and recitation, discussion of literary works, and German culture. Six lecture hours a week for one semester. Only one of the following may be counted: German 611C, 612, 312K, 312R, 312V. Only one of the following may be counted: German 611C, 612, 312L, 312S, 312W. Prerequisite: German 604, 507, or 508K with a grade of at least C.

##### **GER 312K (TCCN: GERM 2311). Second-Year German I: Readings in Humanities and Social Sciences.**

Three lecture hours a week for one semester. Only one of the following may be counted: German 611C, 612, 312K, 312R, 312V. Prerequisite: German 604, 507, or 508K with a grade of at least C.

**GER 312L (TCCN: GERM 2312). Second-Year German II: Readings in Humanities and Social Sciences.**

Three lecture hours a week for one semester. Only one of the following may be counted: German 611C, 612, 312L, 312S, 312W. Prerequisite: German 312K or 312V with a grade of at least C.

**GER 312V. Second-Year German I: Business German.**

German 312V covers the same material as 312K, but with readings, discussions, and exercises that focus on the business world. Emphasis on practical, career-oriented competence. Three lecture hours a week for one semester. Only one of the following may be counted: German 611C, 612, 312K, 312R, 312V. Prerequisite: German 604, 507, or 508K with a grade of at least C.

**GER 312W. Second-Year German II: Business German.**

German 312W covers the same material as 312L, but with readings, discussions, and exercises that focus on the business world. Emphasis on practical, career-oriented competence. Three lecture hours a week for one semester. Only one of the following may be counted: German 611C, 612, 312L, 312S, 312W. Prerequisite: German 312K or 312V with a grade of at least C.

**GER 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in German.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**Upper-Division Courses**

**GER 328. Advanced German Grammar.**

Description of German sounds, grammatical structures, pronunciation, word formation. Three lecture hours a week for one semester. Prerequisite: German 310, 612, 312L, 312S, 312W, or 317C with a grade of at least C.

**GER 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in German.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded to work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**GER 330C. Advanced Conversation and Composition: Culture.**

German cultural material from print and visual media provides the basis for advanced conversation and composition, with considerable practice in the writing of short essays in German. Three lecture hours a week for one semester. Only one of the following may be counted: German 330C or 331L. Prerequisite: German 310, 612, 312L, 312S, 312W, or 317C with a grade of at least C.

**GER 130D. German across Disciplines.**

Students read and discuss German language materials related to the subject matter of another designated course. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Three semester hours of upper-division coursework in German with a grade of at least C.

**GER 331L. Advanced Conversation and Composition: Literature.**

German literary material from print and visual media provides the basis for advanced conversation and composition, with considerable practice in the writing of short essays in German. Three lecture hours a week for one semester. Only one of the following may be counted: German 330C or 331L. Prerequisite: German 310, 612, 312L, 312S, 312W, or 317C with a grade of at least C.

**GER 340C. Historical Backgrounds of German Civilization.**

Cultural, social, and literary history of German-speaking Europe of the Middle Ages. Studies humanism, the Reformation, absolutism, and the early Enlightenment (between 1200 and 1750). Taught in German. Three lecture hours a week for one semester. Prerequisite: Three semester hours of upper-division coursework in German with a grade of at least C.

**GER 343C. Contemporary German Civilization.**

Cultural, social, and literary history of Germany between 1900 and reunification. Taught in German. Three lecture hours a week for one semester. Prerequisite: Three semester hours of upper-division coursework in German with a grade of at least C.

**GER 346L. German Literature between the Enlightenment and the Present.**

Cultural, social, and literary history of German-speaking Europe between 1750 and 1900. Taught in German. Three lecture hours a week for one semester. Prerequisite: Three semester hours of upper-division coursework in German with a grade of at least C.

**GER 347L. Language and Society in the German-speaking Countries.**

Uses language and linguistics to study the culture and society of the German-speaking countries. Taught in German. Three lecture hours a week for one semester. Prerequisite: Three semester hours of upper-division coursework in German with a grade of at least C.

**GER 348D. German Play: Student Production.**

Discussion, staging, and production of a German play. Three hours of lecture or laboratory a week for one semester. Prerequisite: One of the following with a grade of at least C: German 612 or 312L.

**GER 149T, 249T, 349T. Introduction to Teaching German.**

Supervised individual instruction designed to offer students an introduction to principles of foreign language education and the opportunity to teach German in local elementary schools. Weekly class meetings for four weeks, followed by one, two, or three student teaching hours a week for eight weeks. Additional class meetings may also be required. May be repeated for credit, but no more than three semester hours may be counted toward a degree in the College of Liberal Arts. May not be counted toward a major in German. Prerequisite: Credit or registration for German 312L or the equivalent.

**GER 363K. Topics in German Culture.**

Study of selected aspects of Germanic civilization, such as science and philosophy, fine arts, film, history, social institutions. Conducted in German. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in German.

**Topic 1: Classics of German Cinema.** An introduction to German cinema through its most innovative, influential, and important films and filmmakers. German 363K (Topic: German Cinema Since 1933) and 363K (Topic 1) may not both be counted.

**Topic 2: Heimat: No Place Like Home.** Examine the cultural and political history of German-speaking countries, using the concept of

Heimat as a common thread, by means of a variety of media. Investigate the roles Heimat played in the medical discovery of "nostalgia" in the German Romantic period, the rise of German nationalism, the post-war Germanies, and in the German environmentalist movement. German 363K (Topic: Heimat: No Place Like Home) and 363K (Topic 2) may not both be counted.

**Topic 3: Popular Music and West Germany.** Explore West German culture and society through the lens of popular music from the 1950s to the present. Examine an array of sources, from literature, film, television, and music journalism to identify the national and transnational intersections and impacts of popular music on understanding Germany. German 363K (Topic: Pop Music and West Germany) and 363K (Topic 3) may not both be counted.

### GER 369. Topics in Germanic Languages.

Introduction to the phonology, morphology, syntax, dialectology, or lexicography of individual Germanic languages. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: The Structure of the German Language.** German 369 (Topic 1) and Linguistics 373 (Topic 6: The Structure of the German Language) may not both be counted. Additional prerequisite: Three semester hours of upper-division coursework in German or linguistics.

**Topic 4: The German Language: Historical Perspectives.** Same as Anthropology 320J and Linguistics 373G. Conducted in English. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 320J, 320L (Topic 9), German 369 (Topic 4), Germanic Civilization 327E (Topic 9), Linguistics 373 (Topic 9), 373G. Additional prerequisite: Three semester hours of upper-division coursework in German or Linguistics.

**Topic 7: Translation I.**

**Topic 8: Translation II.**

### GER 373. Topics in Germanic Literature.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in German.

**Topic 3: Biography and Autobiography.** German 373 (Topic: Biography and Autobiography) and 373 (Topic 3) may not both be counted.

**Topic 4: German Science Fiction.** German 373 (Topic: German Science Fiction) and 373 (Topic 4) may not both be counted.

**Topic 5: German Travel Literature.** German 373 (Topic: German Travel Literature) and 373 (Topic 5) may not both be counted.

### GER 179, 279, 379. Conference Course in Germanic Language or Literature.

Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Germanic languages or literature. Conference course. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in German.

### GER 679H. Honors Tutorial Course.

Supervised individual research on a literary or linguistic problem, culminating in an honors paper of some length. Conference course for two semesters. Prerequisite: For 679HA, upper-division standing, six semester hours of upper-division German, a University grade point average of at least 3.00, a grade point average in German of at least 3.50, and admission to the Germanic Studies Honors Program; for 679HB, German 679HA.

## Graduate Courses

### GER 380C. German for Graduate Students in Other Departments.

No auditors permitted. Intensive reading course, emphasizing basic grammar and vocabulary with translation practice. Three lecture hours a week for one semester. German 301 and 380C may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### GER 381. Studies in Germanic Linguistics and Philology.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing or consent of instructor.

**Topic 2: Introduction to Synchronic Linguistics: German.**

**Topic 3: Introduction to Diachronic Linguistics: Germanic.** Same as Classical Civilization 383 (Topic 2) and Linguistics 383 (Topic 8). Only one of the following may be counted: Classical Civilizations 383 (Topic 2), German 381 (Topic 3), Linguistics 383 (Topic 8).

**Topic 14: Introduction to the Sociolinguistics of German.**

### GER 382M. Topics in Cultural History.

Study of various political, intellectual, artistic, and social movements in the cultures of Germanic countries. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing or consent of instructor.

### GER 382N. Topics in Intellectual History.

An interdisciplinary investigation of the significance of ideological structures of thought in historical contexts. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing or consent of instructor.

### GER 185, 285, 385. Conference Course in Germanic Languages or Literature.

Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### GER 386. Periods in Germanic Literature.

Thorough survey of the principal periods of Germanic literature. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing or consent of instructor.

**Topic 1: German Literature and Culture: Middle Ages through Humanism (800-1450).**

**Topic 2: German Literature and Culture: Renaissance/Reformation through Baroque (1450-1730).**

**Topic 3: German Literature and Culture: Enlightenment through Realism (1730-1890).**

**Topic 4: German Literature and Culture: Naturalism since 1890.**

**Topic 5: Old Norse Literature and Culture.**

**Topic 10: Dutch Literature and Culture.**

**Topic 12: Scandinavian Literature and Culture.**

### GER 389K. Methods in the Study of Literature and Linguistics.

An introduction to the critical and technical procedures used in Germanic studies, especially bibliographical aids. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing or consent of instructor.

**Topic 1: Fundamentals of Scholarship.**

**Topic 6: German Rhetoric and Stylistics.**

### **GER 392. Seminar in Germanic Literature and Culture.**

Study of problems, topics, writers, genres, and movements in Germanic literature and culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing or consent of instructor.

### **GER 393K. Seminar in Germanic Linguistics and Philology.**

Study of linguistic topics in Germanic languages, such as grammar, morphology, phonology, dialectology, syntax, lexicology, sociolinguistics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing or consent of instructor.

**Topic 1: German Syntax.** Same as Linguistics 384 (Topic 4).

**Topic 3: The Acquisition of German.** Special problems in the acquisition of German or another Germanic language as a first or second language. German 381 (Topic: The Acquisition of German) and 393K (Topic 3) may not both be counted.

**Topic 4: Synchronic Linguistics: German Morphology.**

**Topic 6: Sociolinguistics: Language Contact and Death.**

**Topic 7: Sociolinguistics: Texas German Dialect.**

**Topic 8: Sociolinguistics: German Dialectology.**

**Topic 9: Synchronic Linguistics: Phonetics and Phonology.**

**Topic 10: Older Germanic Languages and Cultures: Old Norse.**

**Topic 11: Older Germanic Languages and Cultures: Gothic.**

**Topic 12: Older Germanic Languages and Cultures: Old High German.**

**Topic 13: Older Germanic Languages and Cultures: Middle High German.**

**Topic 14: Older Germanic Languages and Cultures: Old Saxon.**

### **GER 394C. Topics in Comparative, Cultural, or Theoretical Studies.**

Topics with a substantial Germanic component or application that fall outside of national-language literary and linguistic studies. May include comparative national approaches to genre, culture, or society; interdisciplinary studies; and surveys or focused studies on approaches to theory or methodology that apply to Germanic studies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing or consent of instructor.

### **GER 397P. Topics in Applied Linguistics and Pedagogy.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing or consent of instructor.

**Topic 1: Second Language Comprehension and Processing.** Same as Language Teaching and Coordination 388 (Topic 1). Explore how second language (L2) learners process language and construct meaning during sentence comprehension. Consider theoretical constructs and research methods as well as the practical applications of sentence processing research. Only one of the following may be counted: German 397P (Topic: 2nd Lang Sentence Compr/Proc), 397P (Topic 1), Language Teaching and Coordination 388 (Topics: (Topic: 2nd Lang Sentence Compr/Proc), 388 (Topic 1).

**Topic 2: Second Language Assessment and Testing.** Explore how various tools of assessment are designed and implemented in the field of applied linguistics, in language teaching, and for program direction. German 397P (Topic: Second Language Assessment) and 397P (Topic 2) may not both be counted.

### **GER 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Germanic studies and consent of the graduate adviser; for 698B, German 698A.

### **GER 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Germanic studies and consent of the graduate adviser.

### **GER 398T. Supervised Teaching in German.**

Analysis of the major foreign language teaching methodologies; curriculum and curricular materials development. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **GER 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **German, Scandinavian, and Dutch Studies Courses**

## **German, Scandinavian, and Dutch Studies: GSD**

### **Lower-Division Courses**

#### **GSD 301. Introduction to the Study of Northern Europe.**

Same as European Studies 307 (Topic 3). Introduces significant moments in and monuments from the cultural histories of the German-speaking, Scandinavian, and Dutch nations from their beginnings to the present. Designed to discuss representative problems in research and analysis in cultural studies and the humanities. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 307 (Topic: Introduction to the Study of Northern Europe), 307 (Topic 3), German, Scandinavian, and Dutch Studies 301.

#### **GSD 310. Introductory Topics on Northern Europe.**

Introduction to important topics in the history of Northern Europe's culture, including areas from history, the arts, film studies, language and linguistics, and literature. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: German, Scandinavian, and Dutch Studies 310, Germanic Civilization 301, and Scandinavian 302. May be repeated for credit when the topics vary.

**Topic 1: American Jews: The Yiddish Experience.** Same as American Studies 315 (Topic 6), Jewish Studies 311 (Topic 9), and Religious Studies 316E. Focuses on over a century of Yiddish-based contributions to American literature, music, and film, including works by Isaac Bashevis Singer, Michael Chabon, Woody Allen, and the Marx Brothers. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic 4), 315 (Topic 6); German, Scandinavian, and Dutch Studies 310 (Topic 1); Jewish Studies 311 (Topic 6), 311 (Topic 9); Religious Studies 313 (Topic 1), 316K (Topic 2), 316E.

#### **GSD 311C. Movies Go To War.**

Same as American Studies 315C, Comparative Literature 305 (Topic 3), and European Studies 307 (Topic 4). A comparison of films from various nations about major twentieth century wars to the historical facts of the conflicts as practicums in critical comparative analysis of histories as representations. Only one of the following may be counted: American Studies 315 (Topic: Movies Go to War, World War I to Vietnam), 315C, Comparative Literature 305 (Topic: Movies Go to War, World War I to Vietnam), 305 (Topic 3), European Studies 307 (Topic: Movies Go to War,

World War I to Vietnam), 307 (Topic 4), German, Scandinavian, and Dutch Studies 311C, Germanic Civilization 311 (Topic 2: Movies Go to War, World War I to Vietnam).

### **GSD 311D. Race and Gender Stereotypes in Germany.**

Same as European Studies 306 (Topic 1). Examination of pseudoscientific popular theories of "race" and gender that developed in Germany and elsewhere in Europe in the nineteenth century, and how these affected the lives of millions and shaped current thinking about "racial" and gender differences. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Bad Blood), 306 (Topic 1), German, Scandinavian, and Dutch Studies 311D, Germanic Civilization 301 (Topic: Bad Blood).

### **GSD 311E. Grimms' Fairy Tales.**

Same as Comparative Literature 305 (Topic 4) and European Studies 307 (Topic 5). Reading and discussion of tales from the Grimms' collection, as well as some of the relevant secondary literature. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 305 (Topic: Grimms' Fairy Tales), 305 (Topic 4), European Studies 307 (Topic: Grimms' Fairy Tales), 307 (Topic 5), German, Scandinavian, and Dutch Studies 310 (Topic: Grimms' Fairy Tales), 311E.

### **GSD 311F. Germany and Globalization.**

Same as American Studies 315 (Topic 8) and European Studies 308 (Topic 1). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Germany and Globalization), 315 (Topic 8), European Studies 308 (Germany and Globalization), 308 (Topic 1), German, Scandinavian, and Dutch Studies 310 (Topic: Germany and Globalization), 311F.

### **GSD 311G. Luther's World.**

Same as European Studies 306 (Topic 6), History 304Q, and Religious Studies 315M. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Luther's World), 306 (Topic 6), German, Scandinavian, and Dutch Studies 310 (Topic: Luther's World), 311G, History 304Q, 306N (Topic: Luther's World), Religious Studies 315 (Topic: Luther's World), 315M.

### **GSD 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in the Study of Northern Europe.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. Only one of the following may be counted: German, Scandinavian, and Dutch Studies 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S, Germanic Civilization 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S, Scandinavian 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **GSD 321W. German Cultural History.**

Restricted to students enrolled in the University of Wuerzburg Summer Program. Excursions, local research, and exposure to a German viewpoint on contemporary European affairs. The equivalent of three lecture hours a week for one semester. Taught in Wuerzburg, Germany. German, Scandinavian, and Dutch Studies 321W and Germanic Civilization 327E (Topic 7: German Cultural History) may not both be counted.

### **GSD 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in the Study of Northern Europe.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. Only one of the following may be counted: German, Scandinavian, and Dutch Studies 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S, Germanic Civilization 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S, Scandinavian 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. May be repeated for credit when the topics vary.

### **GSD 331C. Films of Ingmar Bergman.**

Same as Comparative Literature 323 (Topic 11) and European Studies 347 (Topic 13). An introduction to the films of Ingmar Bergman. Only one of the following may be counted: Comparative Literature 323 (Topic: Films of Ingmar Bergman), 323 (Topic 11), English 322 (Topic 18), European Studies 347 (Topic: Films of Ingmar Bergman), 347 (Topic 13), German, Scandinavian, and Dutch Studies 331C, Scandinavian 327 (Topic 9). Prerequisite: Upper-division standing.

### **GSD 331D. Feminism and Film: Women Filmmakers in Northern and Central Europe.**

Same as Comparative Literature 323 (Topic 33), European Studies 347 (Topic 24), and Women's and Gender Studies 340 (Topic 65). An introduction to the work of women filmmakers from Scandinavia, Germany, as well as to the viewing and interpretation of films in general. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women Filmmakers in Northern and Central Europe), 323 (Topic 33), European Studies 347 (Topic: Women Filmmakers in Northern and Central Europe), 347 (Topic 24), German, Scandinavian, and Dutch Studies 330 (Topic: Women Filmmakers in Northern and Central Europe), 331D, Women's and Gender Studies 340 (Topic: Women Filmmakers in Northern and Central Europe), 340 (Topic 65). Prerequisite: Upper-division standing.

### **GSD 331E. Scandinavian Cinema Since 1980.**

Same as Comparative Literature 323 (Topic 50) and European Studies 347 (Topic 36). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Scandinavian Cinema Since 1980), 323 (Topic 50), European Studies 347 (Topic: Scandinavian Cinema Since 1980), 347 (Topic 36), German, Scandinavian, and Dutch Studies 330 (Topic: Scandinavian Cinema Since 1980), 331E. Prerequisite: Upper division standing.

### **GSD 341D. Social Dramas of Henrik Ibsen.**

Same as Comparative Literature 323 (Topic 17), European Studies 347 (Topic 12), and Women's and Gender Studies 345 (Topic 14). A detailed introduction to Ibsen's social dramas (1877-1899), emphasizing their unity as a prolonged commentary on the society of his era and the variety of its human problems. Special emphasis on subjects such as: the family and the home; the public world of reputation, work, and citizenship; the predicaments of men and women in a male-dominated society; and the motives of our interventions into the lives of others. Only one of the following may be counted: Comparative Literature 323 (Topic: Social Dramas of Henrik Ibsen), 323 (Topic 17), English 322 (Topic 17), European Studies 347 (Topic: Social Dramas of Henrik Ibsen), 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, Women's and Gender Studies 345 (Topic 14). Prerequisite: Upper-division standing.

### **GSD 341E. Hans Christian Andersen.**

Same as Comparative Literature 323 (Topic 12) and European Studies 347 (Topic 14). Introduction to such Hans Christian Andersen tales

as "The Little Mermaid," "The Ugly Duckling," and "The Emperor's New Clothes." Examination of their author and the romantic period in which they were written, as well as their historical, philosophical, and literary context. Only one of the following may be counted: Comparative Literature 323 (Topic: Hans Christian Andersen), 323 (Topic 12), English 322 (Topic 19), European Studies 347 (Topic: Hans Christian Andersen), 347 (Topic 14), German, Scandinavian, and Dutch Studies 341E, Germanic Civilization 323E (Topic 4), Scandinavian 373 (Topic 4). Prerequisite: Upper-division standing.

#### **GSD 341F. Women and the Holocaust.**

Same as Comparative Literature 323 (Topic 19), European Studies 346 (Topic 10), Jewish Studies 363 (Topic 11), and Women's and Gender Studies 340 (Topic 50). Introduction to both the history of Jewish and German women during World War II and the Holocaust, and to women's narratives and self-representations of this period. Historical sources, memoirs, films, and interviews will be used as source material. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women's Narratives of the Holocaust and World War II), 323 (Topic 19), European Studies 346 (Topic: Women's Narratives of the Holocaust and World War II), 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Germanic Civilization 323E (Topic: Women's Narratives of the Holocaust and World War II), Jewish Studies 363 (Topic 11), Women's and Gender Studies 340 (Topic: Women's Narratives of the Holocaust and World War II), 340 (Topic 50). Prerequisite: Upper-division standing.

#### **GSD 341G. Isak Dinesen/Karen Blixen.**

Same as Comparative Literature 323 (Topic 14), European Studies 347 (Topic 15), and Women's and Gender Studies 345 (Topic 13). An introduction to the twentieth-century Danish author Karen Blixen, focusing on her major themes such as gender and destiny, and examining her role as a literary figure. Only one of the following may be counted: Comparative Literature 323 (Topic: Isak Dinesen/Karen Blixen), 323 (Topic 14), European Studies 347 (Topic: Isak Dinesen/Karen Blixen), 347 (Topic 15), German, Scandinavian, and Dutch Studies 341G, Women's and Gender Studies 345 (Topic 13). Prerequisite: Upper-division standing.

#### **GSD 341J. Contemporary Scandinavian Stories.**

Same as Comparative Literature 323 (Topic 10) and European Studies 347 (Topic 16). An analysis of contemporary Scandinavian literature and films, how they reflect Scandinavian reality, and how Scandinavian identity is created through sports, food, and politics. Only one of the following may be counted: Comparative Literature 323 (Topic: Contemporary Scandinavian Stories), 323 (Topic 10), European Studies 347 (Topic: Contemporary Scandinavian Stories), 347 (Topic 16), German, Scandinavian, and Dutch Studies 341J, Germanic Civilization 323E (Topic: Contemporary Scandinavian Stories), Scandinavian 373 (Topic: Contemporary Scandinavian Stories). Prerequisite: Upper-division standing.

#### **GSD 341K. The Scandinavian Contribution to World Literature.**

Same as Comparative Literature 323 (Topic 16) and European Studies 347 (Topic 17). Close readings of the most influential Scandinavian texts, including works by Nobel Prize-winning authors such as Knut Hamsun and Selma Lagerlof, as well as the playwrights August Strindberg and Henrik Ibsen while addressing important themes caused by the revolutionary transition to modernity in Scandinavia around 1900, including emancipation of women and sexuality. Only one of the following may be counted: Comparative Literature 323 (Topic: The Scandinavian Contribution to World Literature), 323 (Topic 16), European Studies 347 (Topic: The Scandinavian Contribution to World Literature), 347 (Topic 17), German, Scandinavian, and Dutch Studies 341K, Germanic Civilization 323E (Topic: The Scandinavian Contribution

to World Literature), Scandinavian 373 (Topic: The Scandinavian Contribution to World Literature). Prerequisite: Upper-division standing.

#### **GSD 341L. Vikings and Their Literature.**

Same as Comparative Literature 323 (Topic 43) and European Studies 347 (Topic 35). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Vikings and Their Literature), Comparative Literature 323 (Topic: Vikings and Their Literature), 323 (Topic 43), English 322 (Topic: Vikings and Their Literature), European Studies 347 (Topic: Vikings and Their Literature), 347 (Topic 35), German, Scandinavian, and Dutch Studies 340 (Topic: Vikings and Their Literature), 341L. Prerequisite: Upper-division standing.

#### **GSD 341M. Arendt and de Beauvoir.**

Same as Comparative Literature 323 (Topic 45), European Studies 347 (Topic 37), and Women's and Gender Studies 340 (Topic 61). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Arendt And De Beauvoir), 323 (Topic 45), European Studies 347 (Topic: Arendt And De Beauvoir), 347 (Topic 37), German, Scandinavian, and Dutch Studies 340 (Topic: Arendt And De Beauvoir), 341M, Women's and Gender Studies 340 (Topic: Arendt And De Beauvoir), 340 (Topic 61). Prerequisite: Upper division standing.

#### **GSD 341N. Nobel Prizes: Literature and Politics.**

Same as Comparative Literature 323 (Topic 48) and European Studies 347 (Topic 38). An introduction to Nobel Prize winning authors from northern Europe in the context of literary prizes and the politics of literary reputation. Analyze and compare literary works, set novels into historical context, investigate what popular and scholarly reviews do, and research in both popular and scholarly sources. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Nobel Prizes: Literature and Politics), 323 (Topic 48), European Studies 347 (Topic: Nobel Prizes: Literature and Politics), 347 (Topic 38), German, Scandinavian, and Dutch Studies 340 (Topic: Nobel Prizes: Literature and Politics), 341N. Prerequisite: Upper division standing.

#### **GSD 341P. Northern European Children's Literature.**

Same as Comparative Literature 323 (Topic 47) and European Studies 347 (Topic 39). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Northern European Children's Literature), 323 (Topic 47), European Studies 347 (Topic: Northern European Children's Literature), 347 (Topic 39), German, Scandinavian, and Dutch Studies 340 (Topic: Northern European Children's Literature), 341P. Prerequisite: Upper division standing.

#### **GSD 341Q. Northern European Comics.**

Same as Comparative Literature 323 (Topic 49) and European Studies 347 (Topic 40). A study of graphic novels from Scandinavia, Germany, and Holland to understand the art form of comics and the influence of the cultures in which they were produced. Readings, all in English, cover various genres and time periods. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Northern European Comics), 323 (Topic 49), European Studies 347 (Topic: Northern European Comics), 347 (Topic 40), German, Scandinavian, and Dutch Studies 340 (Topic: Northern European Comics), 340 (Topic 1), 341Q. Prerequisite: Upper division standing.

#### **GSD 341S. German Media: Print to Television.**

Same as Radio-Television-Film 352 (Topic 2). Examine the history of media technology and its cultural and political implication in the German (speaking) context. Three lecture hours a week for one semester.

Only one of the following may be counted: German, Scandinavian, and Dutch Studies 330 (Topic: German Media: Print to TV), 341S, Radio, Television, and Film 352 (Topic: German Media: Print to TV), 352 (Topic 2). Prerequisite: Upper-division standing.

### **GSD 351C. Language, Culture, and the Texas German Experience.**

Same as American Studies 370 (Topic 47), Anthropology 324L (Topic 55), and Linguistics 373 (Topic 10). The evolution of the culture and language of German immigrants to Texas from the 1840s through the present and how they have influenced other ethnic groups in Texas. Three lectures a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Language, Culture, and the Texas German Experience), 370 (Topic 47), Anthropology 324L (Topic: Language, Culture, and the Texas German Experience), 324L (Topic 55), Germanic Civilization 327E (Topic 11) German, Scandinavian, and Dutch Studies 351C, Linguistics 350 (Topic: Language, Culture, and the Texas German Experience), 373 (Topic 10). Prerequisite: Upper-division standing.

### **GSD 360. Topics in Culture and Society.**

In-depth explorations of contemporary and historical moments in the cultures, social relations, cultural histories, and intellectual histories of the nations in Northern Europe and its cultural networks. Three lecture hours a week for one semester. Additional hours may be required for some topics. Only one of the following may be counted unless the topics vary: German, Scandinavian, and Dutch Studies 360, Germanic Civilization 327E, 340E, 360E, 362E, Scandinavian 327, 335. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Holocaust Aftereffects.** Same as Comparative Literature 323 (Topic 40), European Studies 346 (Topic 23), Jewish Studies 365 (Topic 14), Religious Studies 357V, and Women's and Gender Studies 340 (Topic 66). Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 40), European Studies 346 (Topic 23), German, Scandinavian, and Dutch Studies 360 (Topic 1), Jewish Studies 365 (Topic 14), Liberal Arts Honors 350 (Topic: Holocaust Aftereffects), 351Q, Religious Studies 357 (Topic 18), 357V, Women's and Gender Studies 340 (Topic: Holocaust Aftereffects), 340 (Topic 66). Additional prerequisite: Upper-division standing.

**Topic 3: Heretics and Freedom Fighters, 1350-1650.** Same as European Studies 346 (Topic 8), History 362T, and Religious Studies 357F. Explores the theologies, politics, and personal identities that emerged and passed away in this era. Three lecture hours a week for one semester. Only one of the following may be counted: Czech 324 (Topic 4), European Studies 346 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic 12), 362T, Religious Studies 357 (Topic 12), 357F, Russian, East European, and Eurasian Studies 325 (Topic 28). Additional prerequisite: Upper-division standing.

**Topic 5: Germany and Immigration.** Same as European Studies 348 (Topic 7). Only one of the following may be counted: European Studies 348 (Topic: Germany and Immigration), 348 (Topic 7), German, Scandinavian, and Dutch Studies 360 (Topic: Germany and Immigration), 360 (Topic 5). Additional prerequisite: Upper division standing.

### **GSD 361C. Introduction to Germanic Religion and Myth.**

Same as European Studies 347 (Topic 3) and Religious Studies 357T. Survey of the sources and main features of Germanic religion and of the transition from paganism to Christianity in northern Europe and the

Germanic territories of western Europe. Subjects include cosmogonic myths; the origin of man and of society; the concept of the soul; gods and goddesses and their mythology; and the organization of worship. Three lecture hours a week for one semester. Only one of the following may be counted: English 322 (Topic 2), European Studies 347 (Topic 3), German, Scandinavian, and Dutch Studies 361C, Religious Studies 365 (Topic 2), Religious Studies 357 (Topic 17), 357T. Prerequisite: Upper-division standing.

### **GSD 361D. Medieval Women Mystics.**

Same as European Studies 347 (Topic 18), Religious Studies 357U, and Women's and Gender Studies 340 (Topic 51). The life and writings of Saint Birgitta of Sweden, fourteenth-century visionary, religious reformer, and pilgrim, examined and compared with her predecessor Hildegard of Bingen (Germany), her successor Margery Kempe (England), as well as Margery's mentor, Julian of Norwich. Social and historical contexts for all four of these women mystics will be explored in depth. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, Germanic Civilization 327E (Topic 10), Religious Studies 357 (Topic 15), 357U, Scandinavian 373 (Topic 8), Women's and Gender Studies 340 (Topic 51). Prerequisite: Upper-division standing.

### **GSD 361E. Tolerance in Dutch Culture.**

Same as European Studies 347 (Topic 19) and Women's and Gender Studies 340 (Topic 37). The historical roots of Dutch "tolerance" and how it plays a role in current Dutch culture and attitudes towards religious, gender, and sexual differences, as well as drug use, prostitution, and euthanasia. Exploration of the stereotypes and the actuality of these Dutch attitudes and policies from an international comparative perspective. Only one of the following may be counted: European Studies 347 (Topic: Dutch Culture: Too tolerant?), 347 (Topic 19), German, Scandinavian, and Dutch Studies 361E, Germanic Civilization 327E (Topic: Dutch Culture: Too tolerant?), Women's and Gender Studies 340 (Topic: Dutch Culture: Too tolerant?), 340 (Topic 37). Prerequisite: Upper-division standing.

### **GSD 361F. Squaring the Vienna Circle.**

Same as Comparative Literature 323 (Topic 18), European Studies 347 (Topic 20), and Philosophy 329F. Traces the origin of the Vienna Circle of Logical Empiricism in nineteenth-century Europe, and introduces central texts and problems of intellectual history and historical epistemology at the roots of today's analytic philosophy. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Squaring the Vienna Circle), 323 (Topic 18), European Studies 347 (Topic: Squaring the Vienna Circle), 347 (Topic 20), German, Scandinavian, and Dutch Studies 361F, Germanic Civilization 362E (Topic: Squaring the Vienna Circle), Philosophy 327 (Topic: Squaring the Vienna Circle), 329F, 354 (Topic: Squaring the Vienna Circle). Prerequisite: Upper-division standing.

### **GSD 361G. Northern Gods, Northern Faiths: The Conversion of Scandinavians, Finns, Northern Slavs and Shamans.**

Same as Religious Studies 357N and Russian, East European, and Eurasian Studies 345 (Topic 7). An introduction to the basic source texts for several pre-Christian belief systems evolving in geographic proximity and their influence on one another including pre-Christian Slavic; pre-Christian Scandinavian; pre-Christian Sami and Finnish; and ancient and modern Siberian shamanism. Three lecture hours a week for one semester. Only one of the following may be counted: German, Scandinavian, and Dutch Studies 361G, Religious Studies 357 (Topic 16), 357N, Russian, East European, and Eurasian Studies 345 (Topic 7). Prerequisite: Upper-division standing.

**GSD 361J. Protest, Revolt, and Revolution in West Germany.**

Same as European Studies 346 (Topic 20). Explores pivotal political and cultural movements in post-1945 West Germany, including the student movement, terrorism, feminism, the Green movement, and the anti-nuclear movement. Students engage with a wide array of primary and secondary sources ranging from literature and films to essays, newspaper articles, and speeches in order to examine the roots and results of protest, revolt, and revolution during this period of German history. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Protest, Revolt, and Revolution in Postwar Germany), 346 (Topic 20), German, Scandinavian, and Dutch Studies 360 (Topic: Protest, Revolt, and Revolution in Postwar Germany), 361J, Germanic Civilization 360E (Topic: Protest, Revolt, and Revolution in Postwar Germany). Prerequisite: Upper-division standing.

**GSD 361K. German Nationalisms.**

Same as European Studies 346 (Topic 22), Government 368T, and Russian, East European, and Eurasian Studies 335 (Topic 20). History of diverse views and movements regarding German national identity within their respective contexts, 1800-present. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 22), German, Scandinavian, and Dutch Studies 361K, Government 365N (Topic 6), 365N (Topic 19), 368T, Russian, East European and Eurasian Studies 335 (Topic 20). Prerequisite: Upper-division standing.

**GSD 361L. Anti-Semitism in History and Literature.**

Same as Comparative Literature 323 (Topic 42), European Studies 346 (Topic 29), and Jewish Studies 364 (Topic 1). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Anti-Semitism in History and Literature), 346 (Topic 29), Comparative Literature 323 (Topic: Anti-Semitism in History and Literature), 323 (Topic 42), German, Scandinavian, and Dutch Studies 360 (Topic: Anti-Semitism in History and Literature), 361L, Jewish Studies 361 (Topic: Anti-Semitism in History and Literature), 364 (Topic 1). Prerequisite: Upper-division standing.

**GSD 361M. Berlin.**

Same as Comparative Literature 323 (Topic 44), European Studies 347 (Topic 34), History 361F, and Urban Studies 326F. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Berlin), 323 (Topic 44), European Studies 347 (Topic: Berlin), 347 (Topic 34), German, Scandinavian, and Dutch Studies 360 (Topic: Berlin), 361M, History 361F, 362G (Topic: Berlin), 362G (Topic 17), Urban Studies 326F, 353 (Topic: Berlin), 353 (Topic 7). Prerequisite: Upper-division standing.

**GSD 361N. Exhibitions and Public Spectacle.**

Same as Comparative Literature 323 (Topic 46), European Studies 347 (Topic 41), and Geography 320N. Investigate exhibits, world's fairs, museum, monuments, theme parks, and historical reconstructions from Europe and the US, with attention to images of how their sponsoring nations or other entities want to be seen. Examine evidence for both the good and bad sides of national pride and identity. Explore examples of how large-scale culture projects and the public interact. Consider the lasting marks left on the cities and countries sponsoring them. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Exhibitionism and Public Spectacle), 323 (Topic 46), European Studies 347 (Topic: Exhibitionism and Public Spectacle), 347 (Topic 41), Geography 320N, 356T (Topic: Exhibitionism and Public Spectacle), German, Scandinavian, and Dutch Studies 360 (Topic: Exhibitionism and Public Spectacle), 361N. Prerequisite: Upper division standing.

**GSD 361P. Sports and Politics in Germany.**

Same as European Studies 348 (Topic 8). Explore how fascism, communism, liberal democracy, and the current nationalistic backlash against immigration have all used the popularity of sports to achieve their strategic goals, from the 1936 Nazi Olympics to Germany's 2014 World Cup victory and beyond. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Sports and Politics in Germany), 348 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic: Sports and Politics in Germany), 361P. Prerequisite: Upper division standing.

**GSD 361Q. German Scholars: US Exile.**

Same as American Studies 321L, Comparative Literature 323 (Topic 56), and European Studies 346 (Topic 34). Examine the migration of established European intellectuals into the US, due to the Second World War. Explore how they worked against their persecutors for their own cultural heritage and to influence US intellectual life. Investigate the ethical dilemmas faced in transplanting their lives and projects into new contexts. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: German Scholars: US Exile), 321L, Comparative Literature 323 (Topic: German Scholars: US Exile), 323 (Topic 56), European Studies 346 (Topic: German Scholars: US Exile), 346 (Topic 34), German, Scandinavian, and Dutch Studies 360 (Topic: German Scholars: US Exile), 361Q. Prerequisite: Upper-division standing.

**GSD 361R. Viking Language: Runes and Sagas.**

Same as Comparative Literature 323 (Topic 51) and European Studies 347 (Topic 42). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Viking Language: Runes and Sagas), 323 (Topic 51), European Studies 347 (Topic: Viking Language: Runes and Sagas), 347 (Topic 42), German, Scandinavian, and Dutch Studies 360 (Topic: Viking Language: Runes and Sagas), 361R. Prerequisite: Upper division standing.

**GSD 361S. European Immigration to Texas in the Nineteenth Century.**

Same as American Studies 321K and European Studies 346 (Topic 33). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: European Immigration to Texas in the Nineteenth Century), 321K, European Studies 346 (Topic: European Immigration to Texas in the Nineteenth Century), 346 (Topic 33), German, Scandinavian, and Dutch Studies 360 (Topic: European Immigration to Texas in the Nineteenth Century), 361S. Prerequisite: Upper-division standing.

**GSD 361T. Switzerland and Globalization.**

Same as European Studies 348 (Topic 15) and Government 363U. Investigate how the small European country of Switzerland positions itself in a globalized world and how it competes and thrives in it. Explore the questions of how globalization impacts a small, affluent country and how its economy copes with globalization. Consider Swiss history, and its development of direct democracy, to understand Swiss exceptionalism, its response to contemporary issues, and its influence abroad. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Switzerland/Globalization), 348 (Topic 15), German, Scandinavian, and Dutch Studies 360 (Topic: Switzerland/Globalization), 361T, Government 365N (Topic: Switzerland/Globalization), 363U. Prerequisite: Upper-division standing.

**GSD 361U. Politics of Memory: Germany and the United States.**

Same as American Studies 321R, European Studies 348 (Topic 9), and Government 368U. Examine the role that narratives of the past play in politics and policies in both Germany and the United States, by engaging

with key theoretical and empirical debates. Focus on the role of memory in German and US immigration politics. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Politics Of Memory: GER/US), 321R, European Studies 348 (Topic: Politics Of Memory: GER/US), 348 (Topic 9), German, Scandinavian, and Dutch Studies 360 (Topic: Politics Of Memory: GER/US), 361U, Government 365N (Topic: Politics Of Memory: GER/US), 368U. Prerequisite: Upper-division standing.

#### **GSD 361V. Nazi Culture and Politics.**

Same as European Studies 348 (Topic 10), Government 368V, and History 361R. Explore fundamental questions about the unique role of culture in modern democracies and dictatorships by taking an overview of culture and politics in the Third Reich. Examine questions about the relationship between political propaganda and modern entertainment, mass media and authoritarianism, political aesthetics and ideology, and the dynamics of oppression, resistance, and consent. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Nazi Culture and Politics), 348 (Topic 10), German, Scandinavian, and Dutch Studies 360 (Topic: Nazi Culture and Politics), 361V, Government 365N (Topic: Nazi Culture and Politics), 368V, History 361R, 362G (Topic: Nazi Culture and Politics). Prerequisite: Upper-division standing.

#### **GSD 361W. Jewish Folklore.**

Same as Anthropology 325T, Jewish Studies 363 (Topic 25), and Religious Studies 357P. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Jewish Folklore), 325T, German, Scandinavian, and Dutch Studies 360 (Topic: Jewish Folklore), 361W, Jewish Studies 363 (Topic: Jewish Folklore), 363 (Topic 25), Religious Studies 357 (Topic: Jewish Folklore), 357P. Prerequisite: Upper-division standing.

#### **GSD 362D. Memories of War.**

Same as American Studies 321W, European Studies 346 (Topic 42), and Government 362S. Consider the ways the wars of the twentieth and twenty-first century are being remembered in Germany and the United States - from poems, novels and films to monuments and the controversial debates about military conflicts that the two countries have been involved in. Utilize theories of social memory, and concepts of individual and social mourning, to analyze how war affects individual lives, how societies mourn, and how remembering war impacts national identity and politics. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Memories of War), 321W, European Studies 346 (Topic: Memories of War), 346 (Topic 42), German, Scandinavian, and Dutch Studies 360 (Topic: Memories of War), 362D, Government 362S. Prerequisite: Upper-division standing.

#### **GSD 362F. Arabs and Vikings: Art and Culture.**

Same as Art History 328N and Middle Eastern Studies 343 (Topic 13). Explore the art and culture of the global Middle Ages through close examination of recent films, popular and academic publications, and works of art and architecture that reveal the interconnection between the European and the Islamic worlds. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328N, 361L (Topic: Arabs/Vikings Art Culture), German, Scandinavian, and Dutch Studies 360 (Topic: Arabs/Vikings Art Culture) 362F, Middle Eastern Studies 343 (Topic: Arabs/Vikings Art Culture), 343 (Topic 13). Prerequisite: Upper-division standing.

#### **GSD 377. Capstone Research in German, Scandinavian, and Dutch Studies.**

Work leading to assembling a capstone portfolio in German, Scandinavian, and Dutch Studies, including tutorials on norms for

presentation, writing, documentation, and research. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing, German, Scandinavian, and Dutch Studies 301, nine semester hours of upper-division coursework in German, Scandinavian, and Dutch Studies, and consent of instructor.

#### **GSD 379. Conference Course in German, Scandinavian, and Dutch Studies.**

Supervised individual study of selected problems in German, Scandinavian, and Dutch Studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

#### **GSD 679H. Honors Tutorial Course.**

Supervised individual research on a literary or linguistic problem, culminating in an honors paper of some length. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679HA, upper-division standing, six semester hours of upper-division coursework in German, Scandinavian, and Dutch Studies, a University grade point average of at least 3.00, a grade point average in German, Scandinavian, and Dutch Studies of at least 3.50, and admission to the German, Scandinavian, and Dutch Studies Honors Program; for 679HB, German, Scandinavian, and Dutch Studies 679HA.

### **Graduate Courses**

### **Professional Courses**

## **Government Courses**

### **Government: GOV**

#### **Lower-Division Courses**

#### **GOV 303D. Introduction to the Middle East: Adjustment and Change in Modern Times.**

Same as History 306J and Middle Eastern Studies 301L. The responses of the societies of the Middle East and North Africa (Turkey, Iran, Afghanistan, Israel, and the Arab world) to Western cultural and political challenges, primarily since about 1800. Three lecture hours a week for one semester. Only one of the following may be counted: Government 303D, 314 (Topic 3), History 306J, 306N (Topic 5), Middle Eastern Studies 301L.

#### **GOV 106C, 306C (TCCN: GOVT 2306). Politics and Government in Contemporary Texas.**

Develop an understanding of the Texas constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public policy, and the political culture of Texas. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted: Government 105, 106C and 306C. May be paired with Government 310L to satisfy the legislative Core requirement for government. Offered on the letter-grade basis only.

#### **GOV 307. Introduction to Holocaust and Genocide Studies.**

Same as History 307Q and Jewish Studies 307. Examine interdisciplinary perspectives (including historical, political, socio-psychological, and cultural methods and insights) on genocide as a global phenomenon. Three lecture hours a week for one semester. Only one of the following may be counted: Government 307, History 307Q, Jewish Studies 307.

#### **GOV 310L. American Government.**

A basic survey of American government, including fundamental political institutions, federal, state, and local; special attention to the United States and Texas Constitutions. Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be paired

with Government 306C, 312L, or 312P to satisfy the legislative Core requirement for government. Offered on the letter-grade basis only.

### **GOV 312L. Issues and Policies in American Government.**

Analysis of underlying themes concerned with American political institutions and policies, including the United States Constitution. Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be paired with Government 310L to satisfy the legislative Core requirement for government. Offered on the letter-grade basis only.

### **GOV 312P. Constitutional Principles: Core Texts.**

Close readings from primary texts that have shaped or that reflect deeply upon American democracy, including the Declaration of Independence, The Federalist Papers, and Tocqueville's Democracy in America. Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be paired with Government 310L to satisfy the legislative Core requirement for government. Offered on the letter-grade basis only.

### **GOV 314. Introductory Topics in Political Science.**

Introduction to varying topics in government and politics. Three lecture hours a week for one semester. Does not fulfill any part of the legislative requirement for government. May be repeated for credit when the topics vary.

**Topic 5: Asia's Futures.** Same as Asian Studies 301M (Topic 6: Asia's Futures). Current issues, visible trends, and projections for Asia's future.

**Topic 7: Race, Politics, and Identity in Asian America.** Same as Asian American Studies 310 (Topic 2). An introduction to Asian American politics. Subjects include the American political process, and the historic and contemporary role of Asian Americans within that process. Only one of the following may be counted: Asian American Studies 310 (Topic: Race, Identity, and Politics in Asian America), 310 (Topic 2), Government 314 (Topic: Race, Identity and Politics in Asian America), 314 (Topic 7).

**Topic 11: Introduction to Politics in East Asia.** Same as Asian Studies 301M (Topic 17). Introduction to politics and political systems of Japan, China, Taiwan, North Korea, and South Korea. Only one of the following may be counted: Asian Studies 301M (Topic: Introduction to Politics in East Asia), 301M (Topic 17), Government 314 (Topic: Introduction to Politics in East Asia), 314 (Topic 11).

### **GOV 314C. Competing Visions of the Good Life.**

Same as Core Texts and Ideas 303. Introduces the great rival conceptions of the moral basis and goals of political life as elaborated by revolutionary thinkers throughout the history of political philosophy, including Aristotle, Aquinas, Locke, late modern critics of the Enlightenment, and others. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 303, Government 314 (Topic 6), 314C.

### **GOV 314D. Human Rights Theories and Practices.**

Competing viewpoints on issues of human rights from multidisciplinary perspectives. Three lecture hours a week for one semester. Only one of the following may be counted: English 314J (Topic: Human Rights: Theories and Practices), Government 314 (Topic: Human Rights: Theories/Pracs), 314 (Topic 9), 314D.

### **GOV 314E. Classics of Social and Political Thought.**

Same as Core Texts and Ideas 302. Explores the origins of social scientific thought in the history of political philosophy and traces the development of one or more of the social sciences in modern times. Focuses on fundamental ideas about human nature, civil society, and

politics, explored through reading such authors as Aristotle, Aquinas, Locke, Rousseau, Marx, Weber, Durkheim, and Freud. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 302, Government 314 (Topic: Classics of Social and Political Thought), 314 (Topic 10), 314E.

### **GOV 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Government.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Government. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **GOV 320K. United States Constitutional Development: Structures.**

Primarily for prelaw students and government majors. A survey of the origin and growth of the American constitutional system, with emphasis on political structures and processes. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 320L. Arab-Israeli Politics.**

Same as Middle Eastern Studies 341 (Topic 5). In-depth study of domestic, regional, and international factors involved in politics in the Middle East, including simulation of diplomatic interaction in the Arab-Israeli conflict. Government 320L and Middle Eastern Studies 341 (Topic 5) may not both be counted. Prerequisite: Upper-division standing.

### **GOV 320N. United States Constitutional Development: Rights.**

Primarily for prelaw students and government majors. A survey of the origin and growth of the American constitutional system with an emphasis on the development of civil rights and civil liberties in America. Three lecture hours a week for one semester. Government 320N and 357M (Topic: American Constitutional Development II) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 321. American State Politics.**

The states as subsystems of the American political system; state political cultures, social-economic environments, federalism, political participation, interest groups, parties, legislatures, executives, courts, and selected public policies. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 321M. Politics in Japan.**

Same as Asian Studies 321M. Survey of postwar Japanese politics; the occupation, governmental institutions, interest groups, protest movements, industrial policy, the government-business relationship, and political and economic reform. Three lecture hours a week for one semester. Asian Studies 321M and Government 321M may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 322M. Politics in China.**

Same as Asian Studies 322M. Survey of twentieth-century China: historical trends; 1911 revolution; Warlord-Nationalist period; Communist revolution; post-1949 issues; new social and political institutions. Three lecture hours a week for one semester. Only one of the following may be

counted: Asian Studies 322M, 361 (Topic: Politics in China), Government 322M. Prerequisite: Six semester hours of lower-division coursework in government.

#### **GOV 324J. Governments and Politics of Eastern Europe.**

Same as European Studies 348 (Topic 1: Governments and Politics of Eastern Europe) and Russian, East European, and Eurasian Studies 335 (Topic 2: Governments and Politics of Eastern Europe). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic 1), Government 324J, Russian, East European, and Eurasian Studies 335 (Topic 2). Prerequisite: Six semester hours of lower-division coursework in government.

#### **GOV 324L. Governments and Politics of Western Europe.**

Same as European Studies 350. Comparative study of peoples, institutions, parties, interest groups, and bureaucracy in the countries of Western Europe, concentrating on the major political systems of Britain, France, Germany, and Italy. Three lecture hours a week for one semester. European Studies 350 and Government 324L may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

#### **GOV 325. Political Parties.**

Character of the American party system, organization and leadership; pressure politics; the nominating process, campaigns, suffrage, elections, and the expression of public opinion. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

#### **GOV 327L. Public Opinion and American Politics.**

The nature of and major influences on public attitudes, the measurement of public opinion, and the role of public opinion in government. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

#### **GOV 328L. Introduction to Latin American Government and Politics.**

Same as Latin American Studies 337M (Topic 5: Introduction to Latin American Government and Politics). An introductory survey of Latin American political systems: governmental organization, political processes, and current problems. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

#### **GOV 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Government.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Government. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **GOV 330K. The American President.**

Development of the power and influence of the president; nomination, election, and responsibility; case studies of presidential problems; comparison of president and other executives. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

#### **GOV 331L. Law and Society.**

Designed primarily for prelaw students. The role of law in the context of major social issues; legal research and oral argument. Three lecture

hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

#### **GOV 335C. Religion in American Political Thought.**

Same as Religious Studies 346P. Explore religion and politics in the United States through reading of mostly primary sources addressing religious arguments taking positions on historical and contemporary issues. Three lecture hours a week for one semester. Only one of the following may be counted: Government 335C, 335M (Topic 5), Religious Studies 346 (Topic 2), 346P. Prerequisite: Six semester hours of lower-division coursework in Government.

#### **GOV 335D. Natural Law Theory.**

Same as Philosophy 342 (Topic 1). Study of the fundamental moral principles that are built into the design of human nature and lie at the roots of conscience. Three lecture hours a week for one semester. Only one of the following may be counted: Government 335D, 335M (Topic: Natural Law Theory), 335M (Topic 12), and Philosophy 342 (Topic: Natural Law Theory), Philosophy 342 (Topic 1). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

#### **GOV 335E. Hegel and the Formation of Modern European Identity.**

Same as Core Texts and Ideas 335E and European Studies 348 (Topic 6). An in-depth study of how Hegel identifies the social conditions necessary for personal self-realization but also for freedom by means of political community. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Hegel and the Formation of Modern European Identity), 335 (Topic 3), 335E, European Studies 348 (Topic: Hegel and the Formation of Modern European Identity), 348 (Topic 6), Government 335E, 335M (Topic: Hegel and the Formation of Modern European Identity), 335M (Topic 13). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

#### **GOV 335F. Women in the History of Political Thought.**

Same as Core Texts and Ideas 335W and Women's and Gender Studies 345 (Topic 32). Examines the themes of women, the family, and the private sphere in the history of political theory. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Women in Hist of Polit Thought), 335 (Topic 5), 335W, Government 335F, 335M (Topic: Women in History of Political Thought), 335M (Topic 17), Women's and Gender Studies 345 (Topic: Women in History of Political Thought), 345 (Topic 32). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

#### **GOV 335G. African American Social and Political Thought.**

Same as African and African Diaspora Studies 351M, American Studies 321J, and Core Texts and Ideas 326J. Examines the speeches and writings by major theorists and critics of the prophetic tradition of black political thought. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351M, 374D (Topic 21), American Studies 321J, Core Texts and Ideas 326 (Topic 3), 326J, Government 335G, 335M (Topic 10). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

#### **GOV 335M. Topics in Political Thought.**

Intensive examination of selected issues in political thought. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 335N. Topics in American State Government and Politics.**

Analysis of varying topics in the study of American state government and politics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 335O. Politics and Literature.**

Same as Core Texts and Ideas 324. Explores the "old battle between the poets and philosophers," in which the two sides battle for recognition as the deepest source of wisdom about politics and ethics. Includes readings from great works of political philosophy and literature. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 324, Government 335M (Topic: Politics and Literature), 335M (Topic 15), 335O. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 335P. Classics of Social Scientific Thought.**

Same as Core Texts and Ideas 365. Studies a selection of foundational modern classics in economics, psychology, sociology, political science, and anthropology, drawn mainly from the nineteenth and twentieth centuries. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 365, Government 335M (Topic: Classics of Social Scientific Thought), 335P. Prerequisite: Upper-division standing.

### **GOV 335Q. Global Justice.**

Overview of contemporary theories on core issues of justice across national borders. Three lecture hours a week for one semester. Only one of the following may be counted: Government 335M (Topic: Global Justice), 335M (Topic 11), 335Q. Prerequisite: Upper division standing and six semester hours of lower-division coursework in government.

### **GOV 335R. Intellectual World of the American Founders.**

A study of readings about politics, history, economics, ethics, religion, and law and their intellectual influence on founders such as Thomas Jefferson, George Washington, James Madison, and Alexander Hamilton. Three lecture hours a week for one semester. Only one of the following may be counted: Government 335M (Topic: Intellectual World of the American Founders), 335M (Topic 14), 335R. Prerequisite: Upper division standing and six semester hours of lower-division coursework in government.

### **GOV 336M. Governments and Politics of Russia.**

Issues of nationalism and state-building facing Russia and its neighbors. Evaluation of the post-Soviet experience from the perspectives of both domestic and foreign policy. Three lecture hours a week for one semester. Government 336M and Russian, East European, and Eurasian Studies 335 (Topic 3: Governments and Politics of Russia) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 337C. The Politics of Mexico.**

Same as Latin American Studies 337T. Explore Mexico's political and economic development. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337C, 337M (Topic 6), Latin American Studies 337M (Topic 11), 337T. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 337D. Law and Democracy in Latin America.**

Same as Latin American Studies 337O. Explore many of the challenges to the rule of law across Latin America and how they affect the quality of democracy in the region. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337D, 337M

(Topic 7), Latin American Studies 337M (Topic 12), 337O. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 337E. International Politics of Latin America.**

Same as Latin American Studies 337P. Analyze Latin America's political and economic relations with respect to external actors. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337E, 337M (Topic 8), Latin American Studies 337M (Topic 13), 337P. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 337F. Politics, Economy, and Society of Contemporary Brazil.**

Same as Latin American Studies 337Q. Examine major economic, political, and sociological developments in Brazil. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337F, 337M (Topic 9), Latin American Studies 337M (Topic 14), 337Q. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 337G. The Politics of Development in Latin America.**

Same as Latin American Studies 337R. Examine the struggle for development in Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337G, 337M (Topic 2), 337M (Topic 16), Latin American Studies 337M (Topic 2), 337M (Topic 16), 337R. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 337V. Mexican American Political Thought.**

Same as Mexican American Studies 364I. Critically explore the multiple complementary and contradictory intellectual expressions of Mexican American political thought. Pay particular attention to Texas from the mid-nineteenth century through the period of the Chicano Movement in the latter part of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337M (Topic: Mex Amer Political Thought), 337V, Mexican American Studies 364I, 374 (Topic: Mex Amer Political Thought). Prerequisite: Upper-division standing.

### **GOV 338L. East Asian International Relations.**

Same as Asian Studies 338L. Survey of Russian/Soviet, Japanese, Chinese, and American foreign policies of the twentieth century, emphasizing Pacific-region interests; historical policies; intermittent conflicts, such as China versus Japan, Korean War, Indochina Wars; China's emergence as a nuclear power. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 338L, 361 (Topic: East Asian International Relations), Government 338L. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 339L. Research Methods in Government.**

An introduction to research design, data collection and analysis, and the use of the computer and related equipment. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 340M. Readings in Government.**

Individually guided and supervised readings and research in selected topics in government. Schedule and topic of study determined by student in consultation with instructor. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, six semester hours of lower-division coursework in government, and written consent of instructor and the undergraduate adviser.

**GOV 341M. Decision Theory.**

An introduction to the basic concepts and models using decision theory in political science, with particular emphasis on utility analysis, game theory, coalition formation, and voting behavior. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

**GOV 342N. Public Choice.**

The political-economic models that have developed in this area of social science. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

**GOV 344. American Foreign Relations.**

The aims, methods, and accomplishments of United States foreign policy since World War II, by geographic areas and by special problems. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

**GOV 344L. Introduction to Comparative Politics.**

Introductory survey of basic concepts, perspectives, approaches, and trends in comparative politics, with emphasis on the formal-legal, group, class, elite, political culture, structural-functional, and systems approaches. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

**GOV 347K. Governments and Politics of South Asia.**

Same as Asian Studies 347K. A survey of political developments, governmental organization, and economic and social problems in South Asia. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

**GOV 347L. Introduction to Political Theory.**

Study of political theory: what it is; its origins; tradition; political theory today. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

**GOV 347N. Governments and Politics of Southeast Asia.**

A survey of past and present governments and politics of the entire Southeast Asia region. Three lecture hours a week for one semester. Government 347N and 365L (Topic: Governments and Politics in Southeast Asia) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

**GOV 348. Government and the American Economy.**

Relationship of government to the economic system; past trends and present problems in government policy in the United States. Three lecture hours a week for one semester. Prerequisite: Economics 304L and six semester hours of lower-division coursework in government.

**GOV 348C. The European Union and Regional Integration.**

Same as European Studies 348 (Topic 5). Designed to provide a detailed introduction to the European Union, one of America's major economic and political partners and one of the major actors in contemporary international relations. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: European Union and Regional Integration), 348 (Topic 5), Government 348C, 365N (Topic: European Union and Regional Integration), 365N (Topic 25). Prerequisite: Upper-division standing.

**GOV 350K. Statistical Analysis in Political Science.**

Elementary statistical techniques and their applications to problems in political science. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

**GOV 351C. The Classical Quest for Justice.**

Same as Core Texts and Ideas 320. Introduces students to classical political thought through a study of seminal works of antiquity, focusing on those of Plato and Aristotle. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 320, 335 (Topic: Classical Quest for Justice), Government 335M (Topic: Classical Quest for Justice), 351C. Prerequisite: Completion of at least thirty semester hours of coursework.

**GOV 351D. The Theoretical Foundations of Modern Politics.**

Same as Core Texts and Ideas 321. Examines competing foundations of the ongoing development of political and social modernity. Examines a selection of major authors from Machiavelli to Nietzsche. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 321, 335 (Topic: The Theoretical Foundations of Modern Politics), Government 335M (Topic: The Theoretical Foundations of Modern Politics), 351D, Western Civilization 320 (Topic: The Theoretical Foundations of Modern Politics). Prerequisite: Completion of at least thirty semester hours of coursework.

**GOV 351E. Contemporary Political Theory.**

Introduces ongoing debates about identity, power, justice, rights, and democracy that are central to the theories of contemporary thinkers from Arendt to Habermas. Three lecture hours a week for one semester. Government 335M (Topic: Contemporary Political Theory) and 351E may not both be counted. Prerequisite: Completion of at least thirty semester hours of coursework.

**GOV 351G. Critics of Modern Liberalism.**

Same as Core Texts and Ideas 322. Selected critics of the philosophy of the Enlightenment from both the Left and the Right, and from the time of Rousseau to the present. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 322, Government 335M (Topic: Liberalism and its Critics), 351G. Prerequisite: Upper-division standing.

**GOV 351J. Might and Right among Nations.**

Same as Core Texts and Ideas 323. Major alternative approaches to the question of the moral character of international relations, as elaborated by some of the greatest political thinkers. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 323, 335 (Topic: Might and Right among Nations), Government 335M (Topic: Might and Right among Nations), 351J, Western Civilization 320 (Topic: Might and Right among Nations). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**GOV 351L. Morality and Politics.**

Same as Core Texts and Ideas 325. Interdisciplinary readings from major works exploring issues of ethics and leadership. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 325, Government 335M (Topic: Morality and Politics), 351L. Prerequisite: Upper-division standing.

**GOV 353D. Darwin and the Politics of Evolution.**

Same as Core Texts and Ideas 372. A careful reading of Darwin's influential *Origin of the Species* by Means of Natural Selection, together with an examination of the religious, political, and scientific controversies the book has inspired from its first publication to the present day. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 370 (Topic: The Politics of Evolution), 372, Government 335M (Topic: The Politics of Evolution), 353D. Prerequisite: Upper-

division standing and six semester hours of lower-division coursework in government.

### **GOV 355C. Applied Research Methods I.**

Introduction to the research process in the social sciences. The primary emphasis is on engaging in research projects, writing research proposals, analyzing data, and presenting research. Three lecture hours a week for one semester. Only one of the following may be counted: Government 355C, 355M (Topic: Applied Research Methods in Political Science), 355M (Topic 2). Prerequisite: Upper division standing and six semester hours of lower-division coursework in government.

### **GOV 355D. Applied Research Methods II.**

Introduction to the research process in the social sciences. The primary emphasis is on engaging in research projects, writing research proposals, analyzing data, and presenting research. Three lecture hours a week for one semester. Only one of the following may be counted: Government 355D, 355M (Topic: Applied Research Methods in Political Science), 355M (Topic 2). Prerequisite: Government 355C.

### **GOV 355J. Human Behavior as Rational Action.**

An economic approach in studying rational action. Three lecture hours a week for one semester. Government 355J and 355M (Topic 1) may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 355M. Topics in Political Science.**

Emphasis on varying topics in government and politics of contemporary interest and concern. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 355N. World War I in Real Time.**

Follows the timeline of World War I events as they happened. Using the tools of political science, engages modern, cutting edge theories and evidence about the origins and conduct of war to address why "the seminal tragedy of modern times" occurred when it did, and what we can learn from it in the present. Three lecture hours a week for one semester. Government 355M (Topic: World War I in Real Time) and 355N may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 355P. Political Sociology.**

Same as Sociology 320K. A survey of approaches to the study of the state as a social structure; political power and power systems; ideology; political parties and elites. Three lecture hours a week for one semester. Only one of the following may be counted: Government 355M (Topic: Political Sociology), 355P, Sociology 320K. Prerequisite: Upper-division standing.

### **GOV 357C. Constitutional Interpretation.**

Same as Core Texts and Ideas 326C. Designed to improve reasoning and communication skills through constitutional interpretation. Determining what the Constitution means, how to determine what it means, and who should determine what it means. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 326 (Topic: Constitutional Interpretation), 326 (Topic 1), 326C, Government 357C, 357M (Topic 5). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 357D. Civil Liberties.**

Same as Core Texts and Ideas 326L. Explore the United States constitution and Supreme Court with a focus on civil rights and liberties. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 326 (Topic: Civil Liberties), 326L,

Government 357D, 357M (Topic 4). Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 357E. Supreme Court and Public Policy.**

Explore the effects of American politics and culture on the Supreme Court and vice versa. Three lecture hours a week for one semester. Government 357E and 357M (Topic 3) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 357F. Constitutional Structure of Power.**

Explore the structures of power in a constitutional democracy. Three lecture hours a week for one semester. Only one of the following may be counted: Government 357F, 357M (Topic: Constitutional Structure of Power), 357M (Topic 7). Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 357G. Structure of Individual Liberties.**

Same as Core Texts and Ideas 326S. Explore the ways in which the Constitution protects individual rights while accommodating the often competing claims of state, groups, and communities. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 326 (Topic: Structure of Individual Liberties), 326S, Government 357G, 357M (Topic 8). Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 357I. Constitutional Design.**

Explore the design and implementation of national constitutions. Three lecture hours a week for one semester. Only one of the following may be counted: Government 357I, 357M (Topic: Constitutional Design), 357M (Topic 12), Tutorial Course 357 (Topic: Constitutional Design). Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 357J. Law of Politics.**

Explore theoretical and philosophical issues at the intersection of law and politics. Three lecture hours a week for one semester. Only one of the following may be counted: Government 357J, 357M (Topic: Law of Politics), 357M (Topic 10). Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 357L. Judicial Process and Behavior.**

Introduction to traditional and modern approaches to the study of the judicial process, with emphasis on the nature and origin of judicial decisions and the factors that affect judicial decision making. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 357M. Topics in Public Law.**

Intensive study of various aspects of law and the legal system. Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 357V. Asian American Jurisprudence.**

Same as American Studies 321T and Asian American Studies 325N. Examine the historical development of United States law and its relationship to Asian Americans, and of Asian American jurisprudence as an independent field of legal scholarship. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic 5), 321T, Asian American Studies 325 (Topic 5), 325N, Government 357M (Topic 9), 357V. Prerequisite: Upper-division standing.

**GOV 358. Introduction to Public Policy.**

A survey of American public policy, with emphasis on modern problems and trends. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

**GOV 360C. Introduction to International Relations.**

Three lecture hours a week for one semester. Government 360C and 360N (Topic 10) may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**GOV 360D. International Security.**

Explore the conditions and motivations behind the use of military force in world politics. Three lecture hours a week for one semester. Government 360D and 360N (Topic 12) may not both be counted. Prerequisite: Six hours of lower-division coursework in Government.

**GOV 360E. International Political Economy.**

Study of the changing relationship between political and economic power in international relations. Three lecture hours a week for one semester. Government 360E and 360N (Topic 11) may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**GOV 360F. Global Governance.**

Explore the forces that shape global stability and instability with a focus on international agreements. Three lecture hours a week for one semester. Only one of the following may be counted: Government 360F, 360N (Topic: Global Governance), 360N (Topic 13). Prerequisite: Six semester hours of lower-division coursework in Government.

**GOV 360G. Causes of War.**

Same as Russian, East European, and Eurasian Studies 335 (Topic 21). Three lecture hours a week for one semester. Only one of the following may be counted: Government 360G, 360N (Topic 2), Russian, East European, and Eurasian Studies 335 (Topic: Causes of War), 335 (Topic 21).

**GOV 360I. The Politics of International Trade.**

Examine the relationship between international trade, and domestic and international politics. Three lecture hours a week for one semester. Only one of the following may be counted: Business, Government, and Society 370 (Topic: Pol of International Trade), Government 360I, 360N (Topic: Pol of International Trade). Prerequisite: Six semester hours of lower-division coursework in Government.

**GOV 360J. Globalization and the Nation State.**

Explore the evolution of the global economy. Three lecture hours a week for one semester. Government 360J and 360N (Topic: Globalization/The Nation State) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

**GOV 360O. Business and Society.**

Explore the relationship between firms and society, including the role of regulation and government policy in shaping economic outcomes. Examine how governments encourage economic activity. Three lecture hours a week for one semester. Only one of the following may be counted: Business, Government, Society 370 (Topic: Business and Society), 370 (Topic 6), Government 355M (Topic: Business and Society), 360N (Topic: Business and Society), 360O. Prerequisite: Six semester hours of lower-division coursework in government and upper-division standing.

**GOV 360P. International Organization.**

In-depth introduction to the theory and practice of international organizations. Three lecture hours a week for one semester. Only one of the following may be counted: Government 360N (Topic: International Organizations), 360N (Topic 3), 360P. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**GOV 360R. Civil Wars and Ethnic Violence.**

Study of the ethnic conflicts and civil wars that pose the greatest threats to international peace and security today. Three lecture hours a week for one semester. Only one of the following may be counted: Government 360N (Topic: Civil Wars and Ethnic Violence), 360N (Topic 16), 360R. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**GOV 360S. Terrorism and Counterterrorism.**

Examines the historical origins of terrorist violence, the primary causes of terrorist acts committed both by opposition and government forces, as well as counter terrorist measures taken by states and international organizations. Three lecture hours a week for one semester. Only one of the following may be counted: Government 360N (Topic: Terrorism and Counterterrorism), 360N (Topic 17), 360S. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**GOV 362L, 662L. Government Research Internship.**

Fieldwork in research and analysis on governmental and political problems. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only six semester hours of an internship course in government may be counted toward a major in government. Prerequisite: Six semester hours of lower-division coursework in government and consent of instructor.

**GOV 662N. Archer Center Washington Internship.**

Fieldwork in research and analysis on governmental and political problems. The equivalent of six lecture hours and twenty fieldwork hours a week for one semester. Prerequisite: Thirty semester hours of coursework and consent of instructor.

**GOV 362S. Memories of War.**

Same as American Studies 321W, European Studies 346 (Topic 42), and German, Scandinavian, and Dutch Studies 362D. Consider the ways the wars of the twentieth and twenty-first century are being remembered in Germany and the United States - from poems, novels and films to monuments and the controversial debates about military conflicts that the two countries have been involved in. Utilize theories of social memory, and concepts of individual and social mourning, to analyze how war affects individual lives, how societies mourn, and how remembering war impacts national identity and politics. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Memories of War), 321W, European Studies 346 (Topic: Memories of War), 346 (Topic 42), German, Scandinavian, and Dutch Studies 360 (Topic: Memories of War), 362D, Government 362S. Prerequisite: Upper-division standing.

**GOV 362U. Security and Policy in Eastern Europe and Russia.**

Same as European Studies 348 (Topic 13) and Russian, East European, and Eurasian Studies 335 (Topic 31). Examine key contemporary security issues and policy dilemmas through the perspective of post-communist Eastern European countries in the context of European Union (EU) enlargement waves, and in the framework of their membership in supranational organizations. Consider the transformation of regional states' national security strategies, threat perception, and priorities

transitioning from former Warsaw pact to full-fledged EU and NATO membership in shaping their respective national security priorities. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic 13), Government 362U, 365N (Topic: Security/Policy E Eur/Rus), Russian, Eastern Europe, and Eurasian Studies 335 (Topic: Security/Policy E Eur/Rus), 335 (Topic 31). Prerequisite: Upper-division standing.

### **GOV 363U. Switzerland and Globalization.**

Same as European Studies 348 (Topic 15) and German, Scandinavian, and Dutch Studies 361T. Investigate how the small European country of Switzerland positions itself in a globalized world and how it competes and thrives in it. Explore the questions of how globalization impacts a small, affluent country and how its economy copes with globalization. Consider Swiss history, and its development of direct democracy, to understand Swiss exceptionalism, its response to contemporary issues, and its influence abroad. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Switzerland/Globalization), 348 (Topic 15), German, Scandinavian, and Dutch Studies 360 (Topic: Switzerland/Globalization), 361T, Government 365N (Topic: Switzerland/Globalization), 363U. Prerequisite: Upper-division standing.

### **GOV 364C. Islam and Politics.**

Same as Islamic Studies 373 (Topic 19), Middle Eastern Studies 341 (Topic 9), and Religious Studies 358C. An introduction to Islamic political thought. Three lecture hours a week for one semester. Only one of the following may be counted: Government 364C, 365N (Topic: Islam and Politics), Islamic Studies 373 (Topic: Islam and Politics), 373 (Topic 19), Middle Eastern Studies 341 (Topic: Islam and Politics), 341 (Topic 9), Religious Studies 358 (Topic: Islam and Politics), 358C. Prerequisite: Upper division standing.

### **GOV 364D. Evolution of Special Operation Forces.**

Explore the global evolution of Special Operations Forces from different theoretical perspectives, including historical institutionalism, complexity, and bureaucratic politics. Three lecture hours a week for one semester. Only one of the following may be counted: Government 355M (Topic: Evolution of Spec Op Forces), 364D, 365N (Topic: Global Evol Spec Op Forces). Prerequisite: Six semester hours of lower-division coursework in government and upper-division standing.

### **GOV 364V. Political Warfare and Propaganda.**

Same as Russian, East European, and Eurasian Studies 335 (Topic 24). Examine the phenomenon of political warfare in a contemporary global context, focusing on Russia and Eastern Europe. Explore the evolution of techniques of political warfare, including psychological warfare and propaganda. Three lecture hours a week for one semester. Only one of the following may be counted: Government 360N (Topic: Political Warfare/Propaganda), 364V, Russian, East European and Eurasian Studies 335 (Topic: Political Warfare/Propaganda), 335 (Topic 24). Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 365C. Japanese Foreign Policy.**

Same as Asian Studies 361 (Topic 22). An introduction to the foreign and domestic determinants of Japanese foreign policy. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 22), Government 365C, 365L (Topic 2). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 365D. International Relations of East and Southeast Asia.**

Same as Asian Studies 361 (Topic 23). An introduction to the international relations of East and Southeast Asia, with particular attention to postwar economic and security issues, the changing political landscape of the post-Cold War period, and the development and functions of regional institutions. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 23), Government 365D, 365L (Topic 3). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 365E. Political Economy of Asia.**

Same as Asian Studies 361 (Topic 36). Explores the political economies of East Asia with an emphasis on Japan, China, South Korea, and Taiwan. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Political Economy of Asia), 361 (Topic 36), Government 365E, 365L (Topic: Political Economy of Asia), 365L (Topic 4). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 365F. Asian Regionalism and Multilateral Cooperation.**

Same as Asian Studies 361 (Topic 40). Addresses the nature, functional principles, leadership, and policy-making process of contemporary Asian regionalism in comparison to the experiences of European integration. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Asian Regionalism and Multilateral Cooperation), 361 (Topic 40), Government 365F, 365L (Topic: Asian Regionalism and Multilateral Cooperation), 365L (Topic 5). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 365G. The Military in Politics.**

Same as Latin American Studies 337M (Topic 9) and Russian, East European, and Eurasian Studies 335 (Topic 10). Three lecture hours a week for one semester. Only one of the following may be counted: Government 365G, 365N (Topic 3); Latin American Studies 337M (Topic 9); Russian, East European, and Eurasian Studies 335 (Topic 10). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 365I. Authoritarianism.**

Explore the history and political science explanations of authoritarian governments. Three lecture hours a week for one semester. Only one of the following may be counted: Government 365I, 365N (Topic: Authoritarianism), Middle Eastern Studies 341 (Topic: Authoritarianism). Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 365J. Australian Society and Politics.**

Three lecture hours a week for one semester. Government 365J and 365N (Topic 10) may not both be counted. Prerequisite: Upper-division standing.

### **GOV 365L. Studies in Asian Politics.**

Special studies of political behavior and institutions, problems, or developments in individual countries or in the region. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 365O. State Building in China and Taiwan.**

Same as Asian Studies 361G. Compare and contrast the state building process in mainland China and Taiwan. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies

361 (Topic: State Build in China/Taiwan), 361G, Government 365L (Topic: State Build in China/Taiwan), 365O. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 365Q. Comparative Political Parties.**

Analysis of varying topics in the comparative study of political processes. Three lecture hours a week for one semester. Government 365N (Topic: Comparative Political Parties) and 365Q may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 365R. Institutions and Comparative Political Economic Development.**

Comparative study of political processes. Three lecture hours a week for one semester. Government 365N (Topic: Institutions & Comp Pol-Ec Dev) and 365R may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 365S. Comparative Legal Systems.**

Comparative study of the nature of courts and law, their position in political systems, and their potential impact on society. Three lecture hours a week for one semester. Only one of the following may be counted: Government 365N (Topic: Comparative Legal Systems), 365N (Topic 23), 365S. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 365T. Suicide Terrorism.**

Studies the causes of suicide terrorism at elite, community, and rank-and-file levels. Three lecture hours a week for one semester. Only one of the following may be counted: Government 365N (Topic 15), 365T, Islamic Studies 372 (Topic: Suicide Terrorism), Middle Eastern Studies 341 (Topic: Suicide Terrorism). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 365U. European Environmental Politics.**

Same as European Studies 348 (Topic 3). The history of environmental politics in both the member states of the European Union and the EU itself, including conceptual treatment of general environmental politics and policies, history of European environmentalism, and institutional responses at important 'traditional' and new EU member states. Also examines EU environmental policies themselves, such as the EU Emissions Trading System, chemicals policy, and GMO policy. Only one of the following may be counted: European Studies 348 (Topic: European Environmental Politics), 348 (Topic 3), Government 365N (Topic: European Environmental Politics), 365N (Topic 20) 365U. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 365V. Comprehensive Notions of European Security.**

Same as European Studies 348 (Topic 4). Examines the conceptual and practical aspects of European comprehensive security via the institutions charged with implementing it: the European Union (EU), the North Atlantic Treaty Organization (NATO), and the Organization for Security and Cooperation in Europe (OSCE). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Comprehensive Notions of European Security), 348 (Topic 4), Government 365N (Topic: Comprehensive Notions of European Security), 365N (Topic 21), 365V. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 365W. Human Rights and World Politics.**

Same as Women's and Gender Studies 340 (Topic 76). Introduction to the political and policy dimensions of human rights. Three lecture hours a week for one semester. Only one of the following may be counted: Government 365N (Topic: Human Rights and World Politics), 365N (Topic 24), 365W, Women's and Gender Studies 340 (Topic: Human Rights and

World Politics), 340 (Topic 76). Prerequisite: Upper-division standing and six hours of lower-division coursework in government.

### **GOV 366C. The Ethics of Foreign Intervention.**

Explore questions related to an outside power intervening in another country, such as whether foreign military intervention is ever justified and whether outside powers have a responsibility to protect vulnerable populations. Three lecture hours a week for one semester. Government 365N (Topic: Ethics of Foreign Intervention) and 366C may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 366D. Capitalism, Socialism, and Democracy.**

Explore tensions between capitalism, socialism, and democracy and investigate the interdependence of economics and politics. Three lecture hours a week for one semester. Government 365N (Topic: Capitalism, Socialism, Democ) and 366D may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 366E. Immigration and Comparative Politics.**

Explore key issues in the study of migration policy and immigration politics. Three lecture hours a week for one semester. Government 365N (Topic 2) and 366E may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 366F. Issues in Third World Development.**

Same as Latin American Studies 337L. Explore important issues in the politics of developing countries. Three lecture hours a week for one semester. Only one of the following may be counted: Government 365N (Topic 17), 366F, Latin American Studies 337L, 337M (Topic: Iss in Third-World Development). Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 366G. British Politics and Government.**

Explore key aspects of British politics and government. Three lecture hours a week for one semester. Government 365N (Topic: British Politics and Govt) and 366G may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 366I. Israel: Society and Politics.**

Same as Jewish Studies 365 (Topic 10). Analysis of Israeli politics and society in a comparative perspective with a major focus on the social and political cleavages in Israel. Three lecture hours a week for one semester. Only one of the following may be counted: Government 365N (Topic 16), 366I, Jewish Studies 365 (Topic 10). Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 366J. Ethnic Politics in Taiwan and Asia.**

Same as Asian Studies 361F. Explore ethnic politics in Taiwan including some comparison with ethnic politics in neighboring countries. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Ethnic Polit in Taiwan/Asia), 361F, Government 365L (Topic: Ethnic Polit in Taiwan/Asia), 366J. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 366L. International Development and Global Justice.**

Explore global development including patterns of development, variation in development, and the impact of development. Three lecture hours a week for one semester. Government 365N (Topic: Intl Dev and Global Justice) and 366L may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 366O. Rule of Law in the Middle East.**

Same as Islamic Studies 373 (Topic 25), Middle Eastern Studies 341 (Topic 11), and Religious Studies 358L. Three lecture hours a

week for one semester. Only one of the following may be counted: Government 365N (Topic: Rule of Law in the Mid East), 366O, Islamic Studies 373 (Topic: Rule of Law in the Mid East), 373 (Topic 25), Middle Eastern Studies 341 (Topic: Rule of Law in the Mid East), 341 (Topic 11), Religious Studies 358 (Topic: Rule of Law in the Mid East), 358L. Prerequisite: Upper-division standing.

### **GOV 368T. German Nationalisms.**

Same as European Studies 346 (Topic 22), German, Scandinavian, and Dutch Studies 361K, and Russian, East European, and Eurasian Studies 335 (Topic 20). History of diverse views and movements regarding German national identity within their respective contexts, 1800-present. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 22), German, Scandinavian, and Dutch Studies 361K, Government 365N (Topic 6), 365N (Topic 19), 368T, Russian, East European and Eurasian Studies 335 (Topic 20). Prerequisite: Upper-division standing.

### **GOV 368U. Politics of Memory: Germany and the United States.**

Same as American Studies 321R, European Studies 348 (Topic 9), and German, Scandinavian, and Dutch Studies 361U. Examine the role that narratives of the past play in politics and policies in both Germany and the United States, by engaging with key theoretical and empirical debates. Focus on the role of memory in German and US immigration politics. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Politics Of Memory: GER/US), 321R, European Studies 348 (Topic: Politics Of Memory: GER/US), 348 (Topic 9), German, Scandinavian, and Dutch Studies 360 (Topic: Politics Of Memory: GER/US), 361U, Government 365N (Topic: Politics Of Memory: GER/US), 368U. Prerequisite: Upper-division standing.

### **GOV 368V. Nazi Culture and Politics.**

Same as European Studies 348 (Topic 10), German, Scandinavian, and Dutch Studies 361V, and History 361R. Explore fundamental questions about the unique role of culture in modern democracies and dictatorships by taking an overview of culture and politics in the Third Reich. Examine questions about the relationship between political propaganda and modern entertainment, mass media and authoritarianism, political aesthetics and ideology, and the dynamics of oppression, resistance, and consent. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Nazi Culture and Politics), 348 (Topic 10), German, Scandinavian, and Dutch Studies 360 (Topic: Nazi Culture and Politics), 361V, Government 365N (Topic: Nazi Culture and Politics), 368V, History 361R, 362G (Topic: Nazi Culture and Politics). Prerequisite: Upper-division standing.

### **GOV 370C. Election Campaigns.**

The study of contemporary American election campaigns. Three lecture hours a week for one semester. Government 370C and 370L (Topic 1) may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 370E. Congressional Elections.**

Examination of congressional campaigns and election outcomes from both historical and contemporary perspectives. Three lecture hours a week for one semester. Government 370E and 370L (Topic 12) may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 370F. Public Opinion and Representation.**

Examine the relationship between the public and elected officials in representative democracy. Three lecture hours a week for one semester.

Government 370F and 370L (Topic: Public Opinion/Representation) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 370G. Congress and the Presidency.**

Three lecture hours a week for one semester. Government 370G and 370L (Topic 10) may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 370I. The Politics of Food in America.**

Examine politics and political history of food production and consumption in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Government 370I, 370L (Topic: Politics of Food in America), 370L (Topic 21). Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 370J. Campaigns and Elections.**

Introduction to American political campaigns and elections with a focus on federal elections. Three lecture hours a week for one semester. Only one of the following may be counted: Government 370J, 370L (Topic: Campaigns and Elections), 370L (Topic 20). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 370K. Racial and Ethnic Politics.**

An examination of the role of racial and ethnic minorities in politics and of the impact of politics on these minorities. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 370L. Topics in American Government and Politics.**

Analysis of varying topics in the study of American government and politics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 370M. Research on the United States Congress.**

Independent research on lawmaking in the modern United States Congress. Three lecture hours a week for one semester. Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 370N. Research on the United States Congress II.**

Continuation of independent research on lawmaking in the modern United States Congress. Three lecture hours a week for one semester. Prerequisite: Government 370M.

### **GOV 370O. The Politics of Title IX.**

Examine how the passage of Title IX has affected the educational and career opportunities of women in the United States, with a particular emphasis on collegiate athletics. Three lecture hours a week for one semester. Government 370L (Topic: The Politics of Title IX) and 370O may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 370P. Policy-Making Process.**

Focus on the role of Congress and the President in the policy-making process. Three lecture hours a week for one semester. Government 370L (Topic: Policy-Making Process) and 370P may not both be counted. Prerequisite: Upper-division standing.

### **GOV 370Q. Political Psychology.**

Study of the role of psychological theories in understanding politics and forming political views. Three lecture hours a week for one semester.

Government 370L (Topic 16) and 370Q may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 370R. Money in United States Politics.**

Study of the nature and consequences of campaign finance on American politics. Three lecture hours a week for one semester. Only one of the following may be counted: Government 370L (Topic 17), 370R, 379S (Topic: Money in Politics-Honors), Humanities 350 (Topic: Money in Politics-Honors), Liberal Arts Honors 350 (Topic: Money in Politics). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 370S. Social Movements: Theory and Practice.**

Three lecture hours a week for one semester. Government 370L (Topic 9) and 370S may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 370T. The Presidency in the Constitutional Order.**

Explores the thought that national politics has become more prone to institutional and partisan conflict, policy gridlock and that national institutions do not function as intended. Three lecture hours a week for one semester. Only one of the following may be counted: Government 370L (Topic: The Presidency in the Constitutional Order), 370L (Topic 26), 370T. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 370U. Urban Politics.**

Same as Urban Studies 355U. Examine politics in American cities. Three lecture hours a week for one semester. Only one of the following may be counted: Government 370L (Topic: Urban Politics), 370L (Topic 11), 370U, Urban Studies 350 (Topic 1), 355U. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 370V. The Politics of Health Care.**

The role of political institutions and the public in the development of the American health care system. Three lecture hours a week for one semester. Only one of the following may be counted: Government 370L (Topic: The Politics of Health Care), 370L (Topic 23), 370V. Prerequisite: Upper-division standing including six semester hours of coursework in Government.

### **GOV 370W. The United States as a Territorial Nation.**

Explore the territorial or geographic dimension of US political development, examining how the United States became a continent-wide republic and, later, an overseas power. Three lecture hours a week for one semester. Government 370L (Topic 19) and 370W may not both be counted. Prerequisite: Six semester hours of lower-division coursework and upper-division standing.

### **GOV 371C. Problems in United States Politics.**

Examine potential problems in United States politics, seeking to conceptualize and measure them, and explore their causes, effects, and possible solutions. Three lecture hours a week for one semester. Government 370L (Topic: Problems in US Politics) and 371C may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 371D. Race, Policing, and Incarceration.**

Explore inequalities between black Americans and white Americans considering origins of inequalities, and their social and political consequences. Three lecture hours a week for one semester. Government 370K (Topic: Race/Policing/Incarceration) and 371D may

not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 371E. Policy Formulation and Implementation.**

Examine the policy-making process in the United States. Focus on the actors and institutions involved in the formulation and implementation of public policy. Three lecture hours a week for one semester. Government 370L (Topic: Policy Formulation/Implementation) and 371E may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 371F. The Black Church in African American Politics.**

Same as African and African Diaspora Studies 350S and Religious Studies 346K. Explore the political role of the Black church in the African American experience. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350S, 374D (Topic 14), Government 370K (Topic 4), 371F, Religious Studies 346 (Topic 7), 346K. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 371G. African-American Politics.**

Same as African and African Diaspora Studies 350Q. Explore the evolution, nature, and role of African-American politics within the American political system. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350Q, 374D (Topic 13), Government 370K (Topic 3), 371G. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 371I. The United States Congress.**

Examine the modern Congress and analyze various factors influencing the legislative process. Three lecture hours a week for one semester. Government 370L (Topic 7) and 371I may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 371J. Politics of Voter Suppression.**

Explore the politics of vote suppression and its policy remedies, including manipulation of the size and composition of elections. Examine how excluded citizens have addressed such measures via politics, policy reforms, and court appeals. Three lecture hours a week for one semester. Only one of the following may be counted: Government 355M (Topic: Pol of Voter Suppression), 370L (Topic: Pol of Voter Suppression), 371J. Prerequisite: Upper-division standing and six hours of lower-division coursework in government.

### **GOV 371L. Latino Politics.**

Same as Latin American Studies 337S and Mexican American Studies 374 (Topic 15). Explore the political experiences of the United States Latino populations. Three lecture hours a week for one semester. Only one of the following may be counted: Government 370K (Topic 2), 371L, Latin American Studies 337M (Topic 8), 337S, Mexican American Studies 374 (Topic 15). Prerequisite: Six semester hours of lower-division coursework in government.

### **GOV 371M. African-American Women's Political Activism.**

Same as African and African Diaspora Studies 352K and Women's and Gender Studies 340 (Topic 94). Explore Black feminism and African-American women's political participation. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352K, 374D (Topic: Afr Amer Women Pol Activism), Government 355M (Topic: Afr Amer Women Pol Activism), 370K (Topic: Afr Amer Women Pol Activism), 371M, Women's and Gender

Studies 340 (Topic 94). Prerequisite: Six semester hours of lower-division coursework in government and upper-division standing.

### **GOV 371N, 671N. Administrative Internship.**

Students perform research and related activities in a national, state, or local administrative agency. Written reports required. The equivalent of three or six lecture hours a week for one semester. Only six semester hours of an internship course in government may be counted toward a major in government. Prerequisite: Twelve semester hours of coursework in government and consent of instructor.

### **GOV 371R. Politics and Religion in the United States.**

Analysis of the key topics in religion and politics in the United States. Three lecture hours a week for one semester. Government 370L (Topic: Politics and Religion in the United States) and 371R may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **GOV 371U. Politics and Film.**

Explore the importance of political life as it has been captured on screen and examine the role of film in important political events. Three lecture hours a week for one semester. Government 370L (Topic: Politics and Film) and 371U may not both be counted. Prerequisite: Six semester hours of lower-division coursework in Government.

### **GOV 372N, 672N. Campaigns and Elections Internship.**

Students perform research and related activities in political campaigns and polling. Written reports required. The equivalent of three or six lecture hours a week for one semester. Only six semester hours of an internship course in government may be counted toward a major in government. Prerequisite: Twelve semester hours of coursework in government and consent of instructor.

### **GOV 373N, 673N. Legislative Internship.**

Students perform research and related activities in a national, state, or local legislature. Written reports required. The equivalent of three or six lecture hours a week for one semester. Only six semester hours of an internship course in government may be counted toward a major in government. Prerequisite: Twelve semester hours of coursework in government and consent of instructor.

### **GOV 374N. Political Internship.**

Students perform research and related activities for an entity directly related to government and politics. Written reports required. The equivalent of three lecture hours a week for one semester. Only six semester hours of an internship course in government may be counted toward a major in government. Prerequisite: Twelve semester hours of coursework in government.

### **GOV 379C. Regime Perspectives on American Politics.**

Same as Core Texts and Ideas 326R and Liberal Arts Honors 351J. Explore American politics and culture and examine how the parts of America fit together as a whole. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 326R, 335 (Topic: Regime Persp Amer Poltc-Honors), Government 379C, 379S (Topic 3), Liberal Arts Honors 350 (Topic: Regime Persp on Amer Politics), 351J. Prerequisite: Upper-division standing, six semester hours of government coursework, and a grade point average of at least 3.50.

### **GOV 379D. Citizenship in Democratic Politics.**

Same as Liberal Arts Honors 351K. Examine the role of ordinary citizens in democratic politics. Three lecture hours a week for one semester. Only one of the following may be counted: Government 379D, 379S (Topic: Citizens in Democratic Pol-Hon), Liberal Arts Honors 350 (Topic: Citizens

in Democratic Pol), 351K. Prerequisite: Upper-division standing, six semester hours of coursework in Government, and a grade point average of at least 3.50.

### **GOV 379E. Homer and Plato.**

Same as Liberal Arts Honors 351L. Examine the works of Homer and Plato. Explore the ideas of human nature, existence, leadership, courage, honor, ambition, justice, necessity, fate, divine power, human freedom, and moral responsibility. Three lecture hours a week for one semester. Only one of the following may be counted: Government 379E, 379S (Topic: Homer and Plato-Honors), Liberal Arts Honors 350 (Topic: Homer and Plato), 351L. Prerequisite: Upper-division standing, six semester hours of lower-division coursework in government, and a grade point average of at least 3.50.

### **GOV 379F. Politics in Fiction.**

Examine perspectives on American politics and government through works of fiction. Three lecture hours a week for one semester. Only one of the following may be counted: Government 379F, 379S (Topic 2), Liberal Arts Honors 350 (Topic: Politics in Fiction). Prerequisite: Six semester hours of lower-division coursework in Government and upper-division standing.

### **GOV 379G. Jerusalem and Athens.**

Same as Core Texts and Ideas 330J and Liberal Arts Honors 351M. Examine the age-old confrontation between the teaching of the Bible and the politics and philosophy of the ancient Greeks. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 330J, 335 (Topic: Jerusalem and Athens-Honors), 375 (Topic: Jerusalem and Athens-Honors), Government 379G, 379S (Topic: Jerusalem and Athens-Honors), 379S (Topic 4), Liberal Arts Honors 350 (Topic: Jerusalem and Athens), 351M. Prerequisite: Upper-division standing, six semester hours of coursework in government, and a grade point average of at least 3.50.

### **GOV 679H. Honors Tutorial Course.**

Lectures and supervised individual research and the writing of a substantial paper on a special topic in the field of government. No grade is awarded until the student has completed the two-semester sequence. Three lecture hours a week for two semesters. Prerequisite: For 679HA, upper-division standing, admission to the Government Honors Program, and written consent of the Government Honors Program adviser; for 679HB, Government 679HA.

### **GOV 379S. Honors Seminar.**

Substantive focus varies each semester. Topics include but are not limited to constitutional interpretation, political thought, the evolution of American politics, and comparative politics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Completion of thirty semester hours of coursework, including at least six hours of government.

## **Graduate Courses**

### **GOV 380R. Mathematical Methods for Political Analysis.**

An introduction to mathematical concepts essential for quantitative analysis, such as statistics and formal political theory. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **GOV 381J. Political Institutions and Processes.**

Local, state, and national political institutions and policy processes, and specific areas of public policy. Field core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **GOV 381L. Seminar in American Government and Politics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

**Topic 1: Parties and Interest Groups.** An empirically oriented inquiry into political parties and interest groups in the political process.

**Topic 2: The Legislative Process.** Legislative functions, processes, and behavior, with special reference to representative assemblies in the United States.

**Topic 3: Money in United States Politics.** Explores the role, nature, and consequences of money in American politics.

**Topic 4: State Government and Politics.** Institutions, processes, and problems of the American political system at the state level.

**Topic 5: Government and the Economy.** Selected topics on the interrelations between governments and economic systems, with particular reference to American experience.

**Topic 6: Ethnic Politics.** An examination of the status and behavior of racial, ethnic, and religious minorities in the American political system.

**Topic 7: The American Presidency.**

**Topic 8: Congress.**

**Topic 9: Campaigns and Elections.**

**Topic 10: American Political Development.**

**Topic 11: Evolution of American Politics.**

**Topic 12: Positive Political Economy.**

### **GOV 381R. Political Behavior.**

Political socialization, political psychology, public opinion, and electoral behavior. Field core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **GOV 381S. Seminar in Political Behavior.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 1: Public Opinion and Voting Behavior.**

**Topic 2: Political Participation.**

### **GOV 382K. Studies in Political Theory and Philosophy.**

Intensive study of selected classical and contemporary theorists and source materials related to political theory and philosophy. Field core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

### **GOV 382M. Seminar in Political Theory and Philosophy.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

**Topic 1: Contemporary Political Theory.** Analysis of contemporary theoretical problems and detailed study of the works of contemporary Western theorists.

**Topic 2: American Political Thought.** Examination of the origins and development of political ideas that have influenced the evolution of the American political system.

**Topic 4: Feminist Theory.**

**Topic 5: Natural Law Modernized.**

**Topic 6: Postmodernism.**

**Topic 7: Classical Liberalism, Utilitarianism, and Democratic Theory.**

**Topic 8: Philosophy of History.**

**Topic 9: Rousseau.**

### **GOV 383K. Problems in the Study of Politics.**

Normative orientations in research, theory formation and empirical assessment, various conceptions of explanation, and historical development of the social sciences. Three lecture hours a week for one semester. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

### **GOV 384L. Seminar: Latin American Politics.**

Analysis of selected problems in politics and international relations of the countries of Latin America. Two class hours and one conference hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser. Some reading knowledge of Spanish or Portuguese is recommended.

**Topic 1: Brazilian Public Policies.** Same as Latin American Studies 384L (Topic 1: Brazilian Public Policies). Three lecture hours a week for one semester.

**Topic 2: Latin American Urban Politics.** Same as Latin American Studies 384L (Topic 2: Latin American Urban Politics). Three lecture hours a week for one semester.

### **GOV 384M. Seminar in Public Policy and Administration.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

**Topic 1: Policy Evaluation.** Quantitative assessment and analysis of the impact and consequences of public policies.

**Topic 2: Policy Analysis.** Same as Latin American Studies 384L (Topic 4: Policy Analysis). Study of the nature and operation of the national policymaking process.

**Topic 3: Organizational Theory.** Analysis of the structure and operation of complex public bureaucracies.

**Topic 4: Comparative Administration.** Study of administrative theory and practice in comparative perspective.

**Topic 5: Public Management.** Analysis of the executive function in the public sector.

**Topic 6: Development Policy.** Same as Latin American Studies 384L (Topic 3: Development Policy).

**Topic 7: Comparative Public Policy.**

**Topic 8: Public Policy Clinic.**

### **GOV 384N. Seminar in Public Law.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

**Topic 1: The Judicial Process.** An exploration of the nature of the judicial function, with emphasis on the roles of law and discretion in the decisional process.

**Topic 2: Core Readings in Public Law.**

**Topic 3: Constitutional Interpretation.**

**Topic 4: State Constitutions and Human Rights.**

### **GOV 385K. Foundations of Public Policy.**

Introduction to major institutions, values, processes, and problems that shape contemporary public policies. Review and appraisal of current international, national, state, and local policy debates. Sampling of theoretical literature in policy analysis, American politics, institutional and organizational theory, macroeconomic management, democratic theory, policy evaluation, and politics-governance conflicts. Field core

course. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **GOV 385L. Seminar in Methodology.**

Intensive examination of selected issues in the methodology of political inquiry. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 1: Time-Series Analysis.**

**Topic 2: Introduction to Political Methodology.**

**Topic 3: Simultaneous Equation Models.**

**Topic 4: Advanced Regression.**

**Topic 5: Bayesian Statistics.** Bayesian statistics with a focus on social science (especially political science) examples and applications.

### **GOV 185M. Colloquium in Politics.**

Field roundtables, reports of current research, and panel discussions of significant issues in the study of politics. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **GOV 385N. Introduction to Formal Political Analysis.**

Critical, comparative survey of important formal theories of political processes, stressing general approaches rather than mathematical results. Presupposes no technical background. Field core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **GOV 385R. Seminar in Formal Theory.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 1: Game Theory.**

**Topic 2: Spatial Theory.** Only one of the following may be counted: Government 381L (Topic: Spatial Theory), 385L (Topic: Spatial Theory), 385R (Topic 2).

### **GOV 386J. Social Science Research for Political Professionals.**

Restricted to students in the option III master's program in applied politics. A survey of research methods focused on applications for policy, legislative, and advocacy purposes. Covers quantitative and qualitative methods including basic statistical analysis as well as legal and public source research. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **GOV 386L. Survey Methods for Campaigns and Advocacy.**

Restricted to students in the option III master's program in applied politics. An introduction to the use of statistical methods in political practice, including an overview of statistical concepts; special attention is paid to survey design, analysis, and use of common statistical applications. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **GOV 388K. The Study of International Relations.**

Comparison of various theories of international politics and analysis of basic forces that underlie national policies and condition the nature and concerns of contemporary international relations. Discussion, reading, and research. Field core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

### **GOV 388L. Seminar in International Relations.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

**Topic 1: Study of International Conflict.** Studies of the determinants of foreign policy in selected countries, with consideration of both domestic and international factors.

**Topic 2: American Foreign Policy.** Topics in the study of American foreign policy, including the problems and instruments of American diplomacy, and the process by which policy is made.

**Topic 3: International Security.** Study of the political determinants and the substantive issues of national security policy with particular emphasis upon the United States.

**Topic 4: Contemporary Issues in International Relations.** An analysis of major current developments and issues in international politics and military relations.

**Topic 5: International Law and Organization.** An analysis of the forms and functions of international law and organization, with particular emphasis on the case method as means of adjusting interstate relations.

**Topic 6: International Political Economy.**

**Topic 7: Theory and International Relations.**

**Topic 8: Competing Approaches to World Politics.**

### **GOV 390K. Comparative Study of Political Systems.**

Theory and method of comparative political study; varieties of governmental institutions in Western and non-Western countries; comparative examination of political institutions. Field core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

### **GOV 390L. Seminar in Comparative Government and Politics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

**Topic 2: Political Systems of Western Europe.** Analysis of Western European politics; may include both particular political systems and comparative study of political institutions, processes, and behavior.

**Topic 4: Politics of the Middle East and North Africa.** Same as Middle Eastern Studies 381 (Topic 22: Politics of the Middle East and North Africa). Readings and research on the political systems of the Arab world, Israel, Turkey, Iran, and Afghanistan. Precise topics vary.

**Topic 7: Authoritarian Political Systems.** Same as Asian Studies 390 (Topic 2). Comparative study of authoritarian and totalitarian patterns of government, past and present, Western and non-Western; special emphasis on Communist and Fascist systems.

**Topic 9: Political Sociology.**

**Topic 10: Elites.** Same as Sociology 396P (Topic 6: Elites). May be counted toward the political sociology specialization in the sociology degree program.

**Topic 11: Seminar in Russian, East European, and Eurasian Civilizations and Cultures.**

**Topic 12: Soldiers and Politics.**

**Topic 13: Political Transition in Eastern Europe.**

**Topic 14: Comparative Political Institutions.**

**Topic 15: Politics and Society in the Third World.** Same as Latin American Studies 384L (Topic 5: Politics and Society in the Third World).

**Topic 16: Politics of Mexico.**

**Topic 17: Ethnicity, Religion, and Politics in South Asia.** Same as Asian Studies 384 (Topic 3: Ethnicity, Religion, and Politics in South Asia).

**Topic 18: Comparative Politics: Latin America.** Same as Latin American Studies 384L (Topic 6: Comparative Politics: Latin America).

**Topic 19: Advanced Readings in Chinese Politics.** Same as Asian Studies 381 (Topic 1: Advanced Readings in Chinese Politics).

**Topic 20: Japanese Politics.** Same as Asian Studies 383 (Topic 4: Japanese Politics).

**Topic 21: Comparative Ethnic Conflict.** Same as Asian Studies 391 (Topic 1: Comparative Ethnic Conflict).

**Topic 22: Analytical Issues in Latin American Politics.** Designed to provide theoretical and analytical tools to engage in cross-national study and research of political processes in Latin America. Only one of the following may be counted: Government 390L (Topic: Analytical Issues in Latin American Politics), 390L (Topic 22), Latin American Studies 384L (Topic: Analytical Issues in Latin American Politics)

### **GOV 391J. Statistical Analysis in Political Science I.**

An introductory course covering estimation theory and hypothesis testing for statistical models in political science and the basic probability theory needed for statistical theory. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **GOV 391K. Seminar in Political Science.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

**Topic 7: Scope and Methods of Political Science.** History, scope, and methods of political science as a discipline; major paradigms and current subfields; conceptions of explanation in the social sciences; concept formation, theory construction, and empirical assessment; problems of interpretation, comparison, measurement, and experimentation; designs for research; normative orientations in research.

**Topic 8: Writing and Publishing in Political Science.** Examine the craft of writing and data presentation in the social sciences. Government 391K (Topic: Writing & Publishing in Political Science) and 391K (Topic 8) may not both be counted.

**Topic 9: Writing Seminar in Political Theory.** Examine the craft of writing and publishing in political science. Designed for students specializing in political theory.

### **GOV 391L. Statistical Analysis in Political Science II.**

Multivariate statistical techniques and their applications to problems in political science. Field core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing, one course in statistics, and consent of the graduate adviser.

### **GOV 391R. Research Colloquium in Political Science.**

Forum for development of research projects and dissertation proposals. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **GOV 397K, 697K. Conference Course in Political Science.**

Readings in the literature of political science in fields in which the student is preparing for the qualifying examinations for the Doctor of Philosophy. May be repeated for credit. Prerequisite: Graduate standing, twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

### **GOV 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in government, twelve semester hours of upper-division or graduate coursework in government, six of which must be in the field of the thesis subject, and consent of the graduate adviser; for 698B, Government 698A.

### **GOV 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in government and consent of the graduate adviser.

### **GOV 398T. Supervised Teaching in Government.**

Teaching under the close supervision of the course instructor; group meetings with the instructor, individual consultations, and reports throughout the teaching period. Three lecture hours a week for one semester. Prerequisite: Graduate standing, appointment as a teaching assistant, and consent of the graduate adviser.

### **GOV 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Graduate School Courses**

## **Graduate School: GRS**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **GRS 382. Inside View of the Federal Policymaking Process.**

Restricted to students participating in the Archer Center graduate program in public policy. On-the-ground and behind-the-scenes study of the federal policymaking process and the institutions and people that comprise the federal government. Sampling of literature on federal government dynamic and face-to-face interaction with individuals from the major institutions that participate in federal governance. Discussion and analysis of information gathered from meetings with officials from Congress, the White House, executive branch agencies, lobbying firms, nongovernmental organizations, think tanks, interest groups, and the media. The equivalent of three lecture hours a week for one semester. Taught in Washington, DC, during the summer session. Prerequisite: Graduate standing.

#### **GRS 385. Archer Center Independent Study and Research.**

Restricted to students admitted to the Archer Center program in public policy. Tailored to individual students' graduate programs of study. An Archer Center faculty member will work independently with each student to develop a research project that is designed to advance the student's academic and research goals. The project will align with the requirements of the student's graduate degree. The equivalent of three lecture hours a week for one semester. Taught in Washington, DC during the summer session. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **GRS 392, 692. Archer Center Washington Internship.**

Restricted to students participating in the Archer Center program in public policy. Internship with a federal government-related agency or organization in Washington, DC, facilitated through the Archer Center's program in public policy. Students select their internships and are

supervised by a UT Austin faculty member. The equivalent of three lecture hours a week or six lecture hours a week for one semester. Taught in Washington, DC, during the summer session. Prerequisite: Graduate standing.

### **GRS 097. Teaching Assistant Fundamentals.**

Skills, behavior, and strategies for effective college teaching. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

## **Professional Courses**

# **Greek Courses**

## **Greek: GK**

### **Lower-Division Courses**

#### **GK 601C. Beginning Greek.**

Studies the fundamentals of grammar and reading in ancient Greek. Six lecture hours a week for one semester. Only one of the following may be counted: Greek 601C; 804; 506 and 507.

#### **GK 502. First-Year Modern Greek I.**

Introduction to grammar and reading. Five lecture hours a week for one semester. Greek 502 and 602C may not both be counted.

#### **GK 602C. Beginning Modern Greek.**

Six lecture hours a week for one semester. Greek 502 and 602C may not both be counted. Greek 602C and 503 may not both be counted.

#### **GK 503. First-Year Modern Greek II.**

Continuation of Greek 502. Five lecture hours a week for one semester. Greek 602C and 503 may not both be counted. Prerequisite: Greek 502 with a grade of at least C.

#### **GK 804. Intensive Beginning Greek.**

An accelerated course for highly motivated students that combines the material covered in Greek 506 with that covered in the first part of Greek 507. Offered in the summer session as part of the Intensive Greek Program. The Intensive Greek Program meets for five hours each weekday during the summer session. Only one of the following may be counted: Greek 601C; 804; 506 and 507. The student must complete both Greek 804 and 412 in order to earn credit for either; the same grade will be awarded for both courses. Prerequisite: Concurrent enrollment in Greek 412. Students who enroll in 804 must take Greek 412 in the same summer session.

#### **GK 506. First-Year Greek I.**

Studies the fundamentals of grammar and reading in ancient Greek. Five lecture hours a week for one semester. Only one of the following may be counted: Greek 601C; 804; 506 and 507.

#### **GK 507. First-Year Greek II.**

Continuation of Greek 506. Five lecture hours a week for one semester. Only one of the following may be counted: Greek 601C; 804; 506 and 507. Greek 507 and 412 may not both be counted. Prerequisite: Greek 506 with a grade of at least C.

#### **GK 309K. Conference Course.**

Supervised individual instruction in second-year ancient or modern Greek reading. Conference course. May be repeated for credit. Prerequisite: Consent of instructor.

#### **GK 310. Second-Year Modern Greek I.**

Culture, language, and literature of present-day Greece. Three lecture hours a week for one semester. Greek 310 and 610C may not both be counted. Prerequisite: Greek 602C or 503 with a grade of at least C.

#### **GK 610C. Intermediate Modern Greek.**

Continuation of Greek 602C. Six lecture hours a week for one semester. Greek 310 and 610C may not both be counted. Greek 610C and 310K may not both be counted. Prerequisite: Greek 602C or 503 with a grade of at least C.

#### **GK 310K. Second-Year Modern Greek II.**

Continuation of Greek 310. Three lecture hours a week for one semester. Greek 610C and 310K may not both be counted. Prerequisite: Greek 310 with a grade of at least C.

#### **GK 311. Intermediate Greek I.**

Continuation of Greek 601C or 507. Introductory readings from classical authors such as Lysias, Plato, and Xenophon. Includes grammar review. Three lecture hours a week for one semester. Prerequisite: Greek 601C or 507 with a grade of at least C, or Greek 804 and 412 with a grade of at least C in each.

#### **GK 412. Intensive Greek.**

An accelerated course for highly motivated students. Completion of this course is equivalent to completion of Greek 506 and 507. Students who enroll in 412 must take Greek 804 in the same summer session. A grade of A may allow the student to advance to Greek 324 with consent of the Greek 324 instructor. The Intensive Greek Program meets for five hours each weekday during the summer session. Greek 507 and 412 may not both be counted. Prerequisite: Concurrent enrollment in Greek 804.

#### **GK 312K. Intermediate Greek II.**

Continuation of Greek 311. Selected readings from classical and biblical authors. Three lecture hours a week for one semester. Greek 312K and 312L may not both be counted. Prerequisite: Greek 311 with a grade of at least C.

#### **GK 312L. Intermediate Greek II: Biblical Greek.**

Continuation of Greek 311. A parallel to Greek 312K with a focus on biblical Greek. Three class hours a week for one semester. Greek 312K and 312L may not both be counted. Prerequisite: Greek 311 with a grade of at least C.

#### **GK 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Greek.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

#### **GK 324. Advanced Greek.**

Reading and analysis of classical authors such as Homer, Herodotus, Euripides, and Plato. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Greek 312K with a grade of at least C.

**Topic 1: Euripides.**

**Topic 2: Herodotus.**

**Topic 3: Homer's Iliad.**

**Topic 4: Plato.**

**Topic 5: Sophocles.** Greek 324 (Topic: Junior Reading: Sophocles) and 324 (Topic 5) may not both be counted.

**Topic 6: Life of Themistocles.** Greek 324 (Topic: Life of Themistocles) and 324 (Topic 6) may not both be counted.

**Topic 7: Apollonius.** Greek 324 (Topic: Apollonius) and 324 (Topic 7) may not both be counted.

**Topic 8: Greek Love Poetry.** Greek 324 (Topic: Greek Love Poetry) and 324 (Topic 8) may not both be counted.

**Topic 9: Xenophon.** Greek 324 (Topic: Xenophon) and 324 (Topic 9) may not both be counted.

**Topic 10: Solon: Archaic Greek Poetry and Politics.** Explore Archaic Greek verse and classical prose concerning the Athenian poet and statesman, Solon.

**Topic 11: Daphnis and Chloe: Ancient Romance.** Greek 324 (Topic: Daphnis And Chloe: Anc Romance) and 324 (Topic 11) may not both be counted.

### **GK 326. Advanced Greek Grammar and Composition.**

Study of syntax, style, and principles of written composition. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Greek 324.

### **GK 328C. Pauline Epistles.**

Three lecture hours a week for one semester. Greek 328 (Topic 1) and 328C may not both be counted. Prerequisite: Greek 312K or 312L with a grade of at least C-; or Greek 412 with a grade of at least A-.

### **GK 328D. The Gospel of John.**

Three lecture hours a week for one semester. Greek 328 (Topic 2) and 328D may not both be counted. Prerequisite: Greek 312K or 312L with a grade of at least C-; or Greek 412 with a grade of at least A-.

### **GK 328E. Biblical Greek: Acts.**

Three lecture hours a week for one semester. Only one of the following may be counted: Greek 328 (Topic: Biblical Greek: Acts), 328 (Topic 3), and 328E. Prerequisite: Greek 312K or 312L with a grade of at least C-; or Greek 412 with a grade of at least A-.

### **GK 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Greek.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **GK 365. Seminar in Greek.**

Critical study of authors such as Thucydides, Demosthenes, and Aeschylus. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Greek 324 or 328.

**Topic 1: Aeschylus.**

**Topic 2: Sophocles.**

**Topic 3: Thucydides.**

**Topic 4: Aristophanes.**

**Topic 5: Plato and Greek Prose.** Greek 365 (Topic: Plato and Greek Prose) and 365 (Topic 5) may not both be counted.

**Topic 6: Female Poets of Ancient Greece.** Greek 365 (Topic: Female Poets of Ancient Greece) and 365 (Topic 6) may not both be counted.

**Topic 7: Callimachus.** Greek 365 (Topic: Callimachus) and 365 (Topic 7) may not both be counted.

**Topic 8: Aristotle.** Greek 365 (Topic: Aristotle On Tragedy) and 365 (Topic 8) may not both be counted.

**Topic 9: Apollonius Argonautica.**

**Topic 10: Homer's Iliad: Research and Writing.** Greek 365 (Topic: Homer Iliad) and 365 (Topic 10) may not both be counted.

**Topic 11: Homer's Odyssey.** Greek 365 (Topic: Homer Odyssey) and 365 (Topic 11) may not both be counted.

**Topic 12: Classical Historiography.** Greek 365 (Topic: Classical Historiography) and 365 (Topic 12) may not both be counted.

**Topic 13: Wisdom Poetry.** Greek 365 (Topic: Wisdom Poetry) and 365 (Topic 13) may not both be counted.

### **GK 370. Advanced Conference Course.**

Supervised reading. Conference course. May be repeated for credit. Prerequisite: Greek 310K or 324, and consent of instructor.

### **GK 679H. Honors Tutorial Course.**

Supervised conference course for honors candidates in Greek. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the honors program in Greek; for 679HB, Greek 679HA.

## **Graduate Courses**

### **GK 380J. Proseminar in Classical Literature.**

Brief survey of the history of classical literature; orientation to the major periods and genres. Three hours a week for one semester. Designed for first-year graduate students. Prerequisite: Graduate standing.

### **GK 180K. Proseminar.**

An introduction to the research methodology and the ancillary disciplines used in current classical studies, or to certain disciplines such as meter, textual criticism. One hour a week for one semester. Topics other than those listed below may also be taught. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**Topic 1: Research Methods in Classical Studies.** Offered on the credit/no credit basis only.

### **GK 383. Studies in Classical Greek Literature.**

Topics given in recent years include Greek oratory, Aristophanes, and Homer. Three lecture hours a week for one semester. Topics other than those listed below may also be taught. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Aeschylus.**

**Topic 2: Sophocles.**

**Topic 3: Thucydides.**

**Topic 4: Aristophanes.**

### **GK 383K. Current Concepts and Research in Greek.**

An overview of important theories, issues, and research in classics. Three hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **GK 385. Graduate Reading Course.**

Topics given in recent years include Plato and Greek prose, Sophocles, and Sophists. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **GK 385W. Graduate Reading Course: Biblical Greek.**

Graduate level translation and analysis of topics such as the Pauline epistles or the Gospel of John. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **GK 186K, 386K. Conference Course in Greek Literature.**

Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **GK 386L. Conference Course in Greek Language.**

Restricted to students pursuing degrees other than in classics. Conference course. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **GK 390. Seminar in Classical Studies.**

Selected topics in Greek studies. Topics given in recent years include Mycenaean documents, Aristotle's ethics, Archaic poetry, and Plato's Symposium. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **GK 398R. Master's Report.**

Preparation of a research report to fulfill the requirement for the master's degree. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Greek and consent of the graduate adviser.

### **GK 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Health and Society Courses**

## **Health and Society: H S**

### **Lower-Division Courses**

#### **H S 301. Introduction to Health and Society.**

Same as Sociology 308S. A broad, multidisciplinary overview that introduces students to the study of health and society. Three lecture hours a week for one semester. Only one of the following may be counted: Health and Society 301, Sociology 308 (Topic: Introduction to Health and Society), 308S.

#### **H S 310P. Physical Activity and Society.**

Same as Sociology 302P. Explores the way in which people are physically active in a social context - primarily in the United States. Examines how social forces influence physical activity including cultural, economic, historical, and demographic considerations. Examines physical activity on both the individual and population levels to better understand benefits and barriers to activity through the social context. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 302P, 304 (Topic: Physical Activity and Society), Health and Society 310P.

### **Upper-Division Courses**

#### **H S 320. Social Worth, Ethical Dilemmas, and Health Care.**

Explores how the resolution of ethical dilemmas and the assessment of social worth influence the organization and distribution of health care. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **H S 330. Health Care Policy in the United States.**

An overview of the health care system in the United States and analysis of health policy issues primarily from the perspective of health economics. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may

be counted: Health and Society 330, Public Health 358D, Sociology 358D. Prerequisite: Upper-division standing.

### **H S 340. Topics in Health and Society.**

Selected topics on health and society. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites may vary with the topic.

**Topic 5: Health Disparities.** Examine health disparities and outcomes in four areas: core medical sociological theories and models; the biology of stress; intersections of race, class, and gender for health; and introduction to genetics and health disparities. Health and Society 340 (Topic: Health Disparities) and 340 (Topic 5) may not both be counted.

**Topic 6: Cancerland.** Same as Sociology 320C. Explores the social and cultural terrain of cancer research, treatment, and public policy in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Health and Society 340 (Topic 6), Sociology 320C, 321K (Topic: Cancerland). Additional prerequisite: Upper-division standing.

**Topic 7: Contemporary Practice of Medicine.** Explores what it means to be a practicing physician in contemporary America. Structured as a series of guest lectures by doctors from different medical specialties and at different stages in their careers; physician scientists and academicians; hospital administrators and related professionals; providers of medical care from international settings; and ethicists. Three lecture hours a week for one semester. Health and Society 340 (Topic 7) and Sociology 321K (Topic: Contemporary Practice of Medicine) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 8: Economic Sociology of Health.** Same as Sociology 322J. Provides a look at the economics of health and health care through a sociological lens. Examines how the multidimensional nature and distribution of health and healthcare are shaped by a variety of social and economic factors. Gain an understanding of the power of incentives, markets, and cost-benefit analysis, as well as the limits of these tools, in creating effective health care policy. Three lecture hours a week for one semester. Only one of the following may be counted: Health and Society 340 (Topic 8), Sociology 321K (Topic: Economic Sociology of Health), 322J. Additional prerequisite: Upper-division standing.

**Topic 9: Valuing Mental Health.** Explores the value of health in general and mental health specifically. Comparison of notions of health and illness, non-communicable disease and mental illness, and relative valuations in health and mental health. Development of sound, sensitive, and defensible opinions about mental health through the use of plays, poems, songs, videos, short stories, and personal accounts of illness and disability. Three lecture hours a week for one semester. Health and Society 340 (Topic 9) and Sociology 321K (Topic: Valuing Mental Health) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 11: Medical Sociology.** Same as Sociology 341C. Explores the social context of health, illness, and the health care system in American society. Discussion of the processes of medicalization and demedicalization, social factors influencing health and health care, the organization of the health care delivery system and patient outcomes, and the social meaning and experiences of illness. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Medical Sociology), 341C, or Health and Society 340 (Topic 11). Additional prerequisite: Upper-division standing.

#### **H S 341. Health and Justice.**

Same as Philosophy 325J. Examines ethical, political, and legal issues surrounding medicine, society, and healthcare. Three lecture hours or

two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Philosophy 325J, 365 (Topic: Health and Justice), Health and Society 341. Prerequisite: Upper-division standing.

### **H S 341C. Comparative United States Health Systems.**

Examine the social and economic distribution of health and health care and how underlying social values shape both the health of a population and its approach to health care. Analyze health care systems worldwide to see what the advantages and disadvantages of these models are for different segments of society compared to the US model. Three lecture hours a week for one semester. Health and Society 340 (Topic: Comparative US Health Systems) and 341C may not both be counted. Prerequisite: Upper-division standing.

### **H S 347E. Sustainability, Equity, and Health.**

Same as Geography 342S. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 342S, 356 (Topic: Sustainability/Equity/Health), Health and Society 340 (Topic: Sustainability/Equity/Health), 347E. Prerequisite: Upper-division standing.

### **H S 350E. Foundations of Epidemiology.**

Same as Health Education 343. Introduction to the basic tenets of epidemiology as well as the different types of epidemiological study designs. Three lecture hours a week for one semester. Only one of the following may be counted: Health Education 343, Health and Society 340 (Topic 1), 350E. Prerequisite: Consent of instructor.

### **H S 377R. Advanced Research in Health and Society.**

Three lecture hours a week for one semester. Prerequisite: Upper-division standing; Health and Society 301 with a grade of at least B- and one of the following with a grade of at least B-: Biology 318M, Educational Psychology 371, Geography 310C, Sociology 317L, Statistics and Data Sciences 302, 304, 318, (or Statistics and Scientific Computation 302, 304, 318), Social Work 318.

### **H S 378. Seminar in Health and Society.**

Focuses on a key topic or debate within the Health and Society area of study and develops students' abilities to use data and write a research or policy paper that informs that topic or debate. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Health and Society 301 or Sociology 308S.

### **H S 679H. Honors Tutorial Course.**

A supervised conference course to provide training in research and writing. The equivalent of three lecture hours a week for two semesters. Offered on the letter-grade basis only. Prerequisite: For 679HA, upper-division standing and admission to the honors program in Health and Society; for 679HB, Health and Society 679HA.

## **Graduate Courses**

## **Professional Courses**

# **Health Care Transformation Courses**

## **Health Care Transformation: HCT**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **HCT 280. Aspiration, Innovation, and Inertia in Health Care.**

Review examples of successful health care transformation from around the globe. Explore changes and innovations leaders can enable in culture, strategy, and measurement to achieve high-value transformation that restores health care to its purpose—achieving better health. Two lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **HCT 180C, 280C, 380C. Independent Study.**

Restricted to students pursuing a Master of Science in Health Care Transformation. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

#### **HCT 281. Creating Value for Individuals and Families.**

Introduction to methodology for defining relevant patient segments, assessing patients' unmet and unarticulated needs, and identifying outcomes that matter to patients and families. Explore the person-in-environment perspective and the social determinants of health, with the goal of understanding how high-value solutions can improve health outcomes, reduce health disparities, and enable progress toward the Quadruple Aim. Two lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **HCT 382. Redefining Health Delivery Solutions.**

Distinguish between situations in need of process improvement and situations where new solutions need to be created to enable improved health outcomes. Explore how to reduce unwarranted variation and manage improvement cycles. Analyze process improvement techniques such as managing bottlenecks, balancing workflow, and scheduling. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **HCT 283, 383. Systems and Technology Strategy.**

Explore the role of information and technology (IT) to support a successful strategy for creating value for individuals and families. Explore organization needs from IT systems, how technology can support strategy, and how to create a platform business that addresses a health problem. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Health Care Transformation 383 and 390 may not both be counted. Prerequisite: Graduate standing.

#### **HCT 386. Health Care Finance and Payment.**

Analyze financial information in not-for-profit and for-profit contexts, as well as budgeting, forecasting, and cost and managerial accounting. Use these tools to manage strategic decisions and to explore the effects of different funding and payment approaches. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **HCT 387. Measuring Outcomes that Matter.**

Explore the fundamentals of outcome measurement: identifying meaningful outcomes; finding and creating validated and clinically actionable measures; designing systems for collecting, analyzing, and reporting health outcomes data; and accelerating learning by clinical

teams. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **HCT 289, 389. Leadership and Communication for Managing Change.**

Explore communication and team-building skills. Assess individual strengths and weaknesses and examine how to build high-performance teams, give and receive feedback, manage ambiguity, resolve conflict, manage change, and lead transformation. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Health Care Transformation 388 and 389 may not both be counted. Prerequisite: Graduate standing.

### **HCT 292, 392. Strategy for Transformation.**

Explore how strategic thinking differs from strategic planning and how to apply concepts of uniqueness, tradeoffs, fit, and cause to articulate and achieve effective strategy. Using a variety of case examples, examine how to improve the value delivered by multi-facility or multi-location organizations as well as scale high-value initiatives for high-volume implementation. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Health Care Transformation 391 and 392 may not both be counted. Prerequisite: Graduate standing.

### **HCT 396C. Project Planning and Preparation.**

Design an action learning project aimed at improving some aspect of health and/or health care in a team setting. Includes background research, identifying an organizational setting and client, creating a business proposition and project "pitch," and creating measurement and analysis plans. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Graduate standing.

### **HCT 297C, 397C. Project Measurement and Implementation.**

Implement a project, conduct outcome measurement, analyze the organizational setting and team, and gather data for analysis. Refine goals, outcomes, and analysis plans to adapt to meet the needs of the selected project. For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Graduate standing.

### **HCT 198C, 298C, 398C. Project Evaluation and Dissemination.**

Analyze experiential learning project results, write a final report, and design a final poster to present to classmates, faculty, and organizational sponsors. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Graduate standing.

## **Professional Courses**

# **Health Education Courses**

## **Health Education: HED**

### **Lower-Division Courses**

#### **HED 110. Freshman seminar.**

Provides an overview of the life skills that are critical to success, such as academic, social, and health behaviors. Offered on the pass/fail basis only.

#### **HED 311. Introduction to Health Promotion and Behavioral Science.**

Restricted to health education and kinesiology majors. Provides an introduction to the concepts and core principles of health promotion and behavioral science. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

#### **HED 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Health Education.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Kinesiology and Health Education. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **HED 127L, 227L, 327L, 627L. Fieldwork in Health Promotion.**

Restricted to health education and kinesiology majors. Applied experiences in development, delivery, or evaluation of professional health promotion programs. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional hours to be arranged. No more than twelve semester hours in the following courses may be counted: Health Education 127L, 227L, 327L, 627L, Kinesiology 127L, 227L, 327L, 627L. The six-hour fieldwork/internship will require 270 hours overall or about 20 hours per week. Prerequisite: Upper-division standing, consent of the instructor, and a University grade point average of at least 2.50.

#### **HED 628. Internship in Health Promotion.**

Applied experiences in development, delivery, or evaluation of professional health promotion programs. One conference hour and seventeen hours of fieldwork a week for one semester. May be repeated once for credit. Prerequisite: Upper-division standing, consent of the director of the degree program in kinesiology, and a University grade point average of at least 2.50. A higher grade point average may be required.

#### **HED 329K. Child and Adolescent Health.**

Restricted to students in the College of Education. The foundations of child and adolescent health; health education; and the biological, environmental, and behavioral health determinants of health. Includes the application of evidence-based child and adolescent health promotion concepts; prominent health risk behaviors established during youth that increase the risk of morbidity and mortality; and the application of personal health and wellness information. Three lecture hours a week for one semester.

#### **HED 129S, 229S, 329S, 629S. Topics in Health Education.**

Restricted to health education and kinesiology majors. Credit is recorded while the student is enrolled at another institution in a program administered by the University's Study Abroad Office. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Credit is recorded as assigned by the study abroad adviser in the Department of Kinesiology and Health Education. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary. May be repeated for credit when the topics vary.

#### **HED 335. Theories of Substance Use and Abuse.**

Restricted to health education and kinesiology majors. An introduction to the psychological, social, pharmacological, and cultural aspects of substance use and abuse. Includes a study and critique of the theories of substance use and abuse. Three lecture hours a week for one semester.

#### **HED 343. Foundations of Epidemiology.**

Same as Health and Society 350E. Introduction to the basic tenets of epidemiology as well as the different types of epidemiological study

designs. Three lecture hours a week for one semester. Only one of the following may be counted: Health Education 343, Health and Society 340 (Topic 1), 350E. Prerequisite: Consent of instructor.

### **HED 350. Theories of Health Promotion Behavioral Science.**

Restricted to health promotion majors. Introduction to the field of health promotion, as applicable in the fields of health and education: theories, processes, activities, and settings for health promotion practice. Three lecture hours a week for one semester. Health Education 350 and 370K (Topic 1) may not both be counted. Prerequisite: Upper-division standing, Health Education 311 and 343.

### **HED 351. Needs Assessment and Program Planning.**

Restricted to health promotion majors. Introduction to the processes of planning, implementing, and evaluating health promotion programs. Three lecture hours a week for one semester. Only one of the following may be counted: Health Education 351, 352K (Topic 1), 371K. Prerequisite: Upper-division standing, at least 60 semester hours of coursework, and Health Education 311 and 350.

### **HED 352K. Studies in Health: Topical Studies.**

Analysis and synthesis of the literature and discussion of current and specific issues in health. Three lecture hours a week for one semester. Laboratory work is required for some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### **Topic 3: Psychosocial Issues in Adult Development and Health.**

Examines psychosocial issues in adult physical and mental health within the context of adult psychological development, using a biopsychosocial approach. Examines psychosocial factors in the major health risks in adulthood and in preventative health behavior. Also considers psychosocial factors in stress and coping and their implications for health.

### **HED 360. Adolescent Health Risk Behavior.**

Overview of the biological, psychological, social, and environmental determinants of adolescent risk-taking behavior. Focuses on selected behaviors that can result in adolescent mortality, morbidity and social problems including: violence, sexual behavior, obesity-related behaviors, depression, alcohol, tobacco, and other substance use. Three lecture hours a week for one semester. Health Education 360 and 370K (Topic 2) may not both be counted.

### **HED 361. Psychosocial Issues in Women's Health.**

Same as Women's and Gender Studies 345 (Topic 35). Explores psychosocial issues in women's physical and mental health, including traditional reproductive issues, disorders that are more common in women than in men, and the leading causes of death in women. Covers gender influences on health risk behaviors, and societal influences on women's health through a consideration of social norms and roles. Three lecture hours a week for one semester. Only one of the following may be counted: Health Education 352K (Topic 2: Psychosocial Issues in Women's Health), 361, Women's and Gender Studies 345 (Topic 35). Prerequisite: Upper-division standing.

### **HED 364. Strategic Health Communication.**

Restricted to health education majors, kinesiology majors, and youth and community studies majors. Introduces essential components of effective communication strategies and persuasive messaging techniques to aid in the development of a strategic health campaign for a client in an allied health field. Three lecture hours a week for one semester. Health Education 352K (Topic 4) and 364 may not both be counted.

### **HED 365. Social Determinants of Health and Health Disparities.**

Restricted to health education and kinesiology majors. Explores social determinants of health and health disparities, as well as strategies to reduce them. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HED 366. Human Sexuality.**

Introduction to health and sexuality. Explore sexuality, health, and rights and how they relate to the past, present, future, emerging issues, controversial issues, and cutting-edge areas. Examine the evolution of sexual rights, global sexual health, how health and sexuality constructs positive and negative messages throughout communities, nationally, and globally, methods to improve sexual health, and advocacy. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and at least 45 semester hours of coursework.

### **HED 370K. Topical Seminar in Health Promotion.**

Identification, causes, incidence, prevention, control, and social implications of major problems in health. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Foundations of Health Promotion I.** Restricted to health promotion students. Introduction to the field of health promotion, as applicable in the fields of health and education: theories, processes, activities, and settings for health promotion practice. Health Education 350 and 370K (Topic 1) may not both be counted. Additional prerequisite: Upper-division standing

**Topic 3: Environmental Health.** Provides an introduction to the key areas of environmental health in developed and developing countries. Using the perspectives of the population and community, the course will cover factors associated with the development of environmental health problems.

### **HED 371K. Foundations of Health Promotion II.**

Introduction to the processes of planning, implementing, and evaluating health promotion programs. Three lecture hours a week for one semester. Only one of the following may be counted: Health Education 351, 352K (Topic 1), 371K. Prerequisite: Upper-division standing and Health Education 370K (Topic 1).

### **HED 373. Evaluation and Research Design.**

Restricted to health promotion students. Fosters a knowledge and understanding of the research process and uses this knowledge to plan and evaluate health promotion programs. Subjects include types of experimental and non-experimental research, validity, reliability, experimental and quasi-experimental research designs, data collection procedures, measurement of health knowledge, attitudes and behaviors, data analysis, and the presentation of results. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HED 178C, 278C, 378C, 678C. Fieldwork in Health.**

Undergraduate research and/or experience with a health agency in the field attempting to analyze or solve community health problems through education; students are supervised by the health agency and by the kinesiology and health education faculty. For each semester hour of credit earned, two laboratory hours a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and consent of instructor.

### **HED 378D. Peer Health Leadership I.**

Restricted to students in the University Health Services program. Literature and discussion of current and specific issues in health. One conference hour and eight hours of fieldwork a week for one semester.

May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

**Topic 1: Healthyhorns Peer Educator Training.** Restricted to students in the Healthyhorns Peer Educator program. Training in the foundations of public health, with the opportunity to provide interactive and educational outreach activities such as presenting workshops to student groups and develop and staff initiatives that positively impact students' health.

**Topic 2: Mental Health Promotion.** Restricted to students in the Mental Health Promotion program.

**Topic 3: Clinic Volunteer Program.** Restricted to students in the University Health Services Clinical Volunteer Program. Analysis of literature and weekly discussion of current and specific issues relating to health. Focus on teamwork and leadership skills through a group capstone presentation at the end of the semester.

### **HED 178E. Peer Health Leadership II.**

Restricted to students in the University Health Services program. Literature and discussion of current and specific issues in health. One conference hour and two hours of fieldwork a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

**Topic 3: Clinic Volunteer Program.** Restricted to students in the University Health Services Clinical Volunteer Program.

### **HED 178F. Peer Health Leadership III.**

Restricted to students in the University Health Services program. Literature and discussion of current and specific issues in health. One conference hour and two hours of fieldwork a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

**Topic 1: Healthyhorns.** Restricted to students in the Healthyhorns Peer Educator program.

**Topic 2: Mental Health Promotion.** Restricted to students in the Mental Health Promotion program.

**Topic 3: Clinic Volunteer Program.** Restricted to students in the University Health Services Clinical Volunteer Program.

### **HED 178G. Applied Peer Education.**

Continue to examine concepts related to peer education, public health, and health promotion. Discuss campus resources and learn how to integrate that information in workshops, campus events, and public health initiatives. Work collaboratively in "pods" which aim to promote comprehensive health promotion strategies across campus. Explore group facilitation and peer-led discussion skills. One-and-one-half lecture hours and the equivalent of two service hours a week for one semester. Only one of the following may be counted: Health Education 178E (Topic 1), 178E (Topic 2), 178G. Offered on the pass/fail basis only. Prerequisite: Health Education 378I and consent of instructor.

### **HED 378I. Foundations of Peer Health Leadership.**

As incoming peer educators, explore content related to health promotion among college students and examine how to effectively use that information in their role. Deliver workshops, attend Longhorn Wellness Center (LWC) events, represent the LWC at campus functions, and develop public health initiatives and projects. Three lecture hours and the equivalent of one service hour a week for one semester. Only one of the following may be counted: Health Education 378D (Topic 1), 378D (Topic 2), 378I. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

### **HED 178J. Fieldwork in Peer Education.**

Continue to explore the skills necessary to be effective public health promotion peer educators. Deliver workshops, serve as mentors to the new class of peer educators, attend Longhorn Wellness Center (LWC) events, represent the LWC at campus functions, and develop initiatives and projects in committees. Examine how peer educator skills apply to professional development skills. One-and-one-half lecture hours and the equivalent of two service hours a week for one semester. Only one of the following may be counted: Health Education 178E (Topic 1), 178E (Topic 2), 178J. Offered on the pass/fail basis only. Prerequisite: Health Education 178G and consent of instructor.

## **Graduate Courses**

### **HED 386. Research Methodologies.**

Disciplines of research methods, research design, data-producing techniques, treatment and interpretation of data, reporting on research. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Research Methods: Proposal Writing.** Additional prerequisite: Educational Psychology 371 or an equivalent introductory statistics course with a grade of at least C.

**Topic 2: Research Methods: Applied Research Techniques.**

### **HED 395. Advanced Topical Studies.**

Group and individual studies of advanced topics; critique and synthesis of research findings and of literature. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Foundations of Health Promotion.**

**Topic 3: Worksite Wellness & Health Promotion.** Introduction of the business model approach as an evaluation and justification of worksite wellness.

**Topic 4: Intervention Mapping: Health Promotion Program Development.**

**Topic 5: Issues in School and College Health.**

**Topic 6: Theories of Health Behavior.**

**Topic 7: Foundations of Epidemiology.**

**Topic 8: Theories of Substance Abuse.**

**Topic 11: Human Sexuality.**

**Topic 12: Child and Adolescent Health Psychology.** Introduction to the psychological, social, and physical aspects of childhood and adolescence. Issues are addressed from a developmental-contextual perspective.

**Topic 16: Organizational and Social Change for Health Promotion.**

**Topic 17: Mind/Body Health.** The scientific basis for mind/body health; overview of clinically tested mind/body interventions in each dimension of health: emotional, psychological, physical, spiritual, intellectual, and social.

**Topic 18: Adolescent Problem Behaviors: A Developmental Perspective.**

In-depth theoretical and empirical analysis from a developmental perspective of adolescent problem behaviors.

Individual and contextual factors related to adolescent substance abuse, early sexual activity, pregnancy and childbearing, and emotional problems.

**Topic 19: Public Health Communication: Case Studies.** Introduction to applications of social cognitive learning theory and innovation diffusion theory in the design of campaigns to change health behaviors.

**Topic 20: Adult Development, Aging, and Health.** Overview of current research and theory in the study of adult development, aging, and health. Considers the interaction of biological, psychological, and social factors in health and well-being.

**Topic 21: Risk and Resilience in Children and Adolescents.**

Introduction to the theories and methods of child and adolescent risk and resilience. Examines resilience processes in populations at elevated risk for negative outcomes and explores how empirical research contributes to the development of programs aimed at strengthening resilience in at-risk youth.

**Topic 22: Politics of Health and Long-Term Care Reform.**

**Topic 23: Health Issues in Gerontology.** An introduction to physical, psychological, and social perspectives on aging, with an emphasis on health and health care of older adults. Explores the impact of an aging society on socioeconomic, political, and health care systems.

**Topic 24: Social and Behavioral Aspects of International Health.**

Behavioral science principles and methods of international cooperation in research and action, illustrated by case studies.

**Topic 25: Politics and Policies in an Aging Population.** The impact of an aging population on social institutions; the utility of different approaches to the social welfare demands of an ethnically and racially diverse population.

**Topic 26: Planning Health Promotion Programs.** Introduction to the processes of planning, implementing, and evaluating health promotion programs. Students develop a health promotion intervention and evaluation plan for a public health issue. Additional prerequisite: Health Education 370K (Topic 1: Foundations of Health Promotion I).

**Topic 27: Physical Activity and Public Health Practice.** Practice strategies for implementation of public health programming related to physical activity, approached through review of the current research literature. Topics focus on evidence-based strategies, and key approaches to program development, implementation, and evaluation.

**Topic 28: Social Determinants of Health.** Introduces the social factors/determinants that influence health, including: race, class, education, family, neighborhood, media, global influences, immigration, and gender. Theoretical and methodological approaches to the study of social determinants will be discussed from a social ecological perspective.

**HED 196, 296, 396. Doctoral Seminar.**

Individual or shared project research with reports evaluated by seminar participants and the instructor. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and written consent form.

**HED 296T, 396T. Directed Research in Health Education.**

Investigation of assigned problems under the direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; production of an acceptably written research report. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent form.

**HED 197, 397. Research Problems.**

Individual or group research in a specialized area of health education. The equivalent of one or three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent form.

**HED 397P, 697P. Graduate Internship.**

Supervised practice in a professional organization or institution. The equivalent of nine or eighteen laboratory hours a week for one semester. May be repeated for credit by doctoral students. Prerequisite: Graduate standing and admission by internship committee.

**HED 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in health education and written consent of the graduate adviser; for 698B, Health Education 698A and written consent of the graduate adviser.

**HED 398T. Teaching in Higher Education.**

Provides graduate students with the knowledge and ability to teach in higher education. An overview of diverse instructional strategies, common issues in teaching and learning, short- and long-term planning, practical aspects of course design and management, as well as assessment and grading practices. Reviews historical perspectives on the research in teaching and learning. Three lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**HED 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

**Professional Courses****Hebrew Courses****Hebrew: HEB****Lower-Division Courses****HEB 601C. Intensive Hebrew I.**

First semester of intensive Hebrew language instruction. Six lecture hours a week for one semester. Hebrew 601C and 506 may not both be counted. Hebrew 601C and 507 may not both be counted.

**HEB 602C. Intensive Biblical Hebrew I.**

Introduction to the language and texts of the Hebrew Bible, taught in the interactive style of a modern language classroom. Six lecture hours a week for one semester.

**HEB 506. First-Year Hebrew I.**

Not open to native speakers of Hebrew. Modern Israeli Hebrew, including the writing system, basic sentence structure, vocabulary, and simple conversation. Five lecture hours a week for one semester. Hebrew 601C and 506 may not both be counted.

**HEB 507. First-Year Hebrew II.**

Not open to native speakers of Hebrew. Continuation of Hebrew 506. Five lecture hours a week for one semester. Hebrew 601C and 507 may not both be counted. Prerequisite: Hebrew 506 with a grade of at least C.

**HEB 611C. Intensive Hebrew II.**

Second semester of intensive Hebrew language instruction. Six lecture hours a week for one semester. Hebrew 611C and 412K may not both be counted. Hebrew 611C and 412L may not both be counted. Prerequisite: Hebrew 601C or 507 with a grade of at least C.

**HEB 612C. Intensive Biblical Hebrew II.**

Continuing the study of the language and texts of the Hebrew Bible, taught in the interactive style of a modern language classroom. Six lecture hours a week for one semester. Prerequisite: Hebrew 602C with a grade of at least C.

**HEB 412K. Second-Year Hebrew I.**

Not open to native speakers of Hebrew. Modern Israeli Hebrew. Continuation of Hebrew 507 with expanded grammar and conversation.

Four lecture hours a week for one semester. Hebrew 611C and 412K may not both be counted. Prerequisite: Hebrew 507 with a grade of at least C.

### **HEB 412L. Second-Year Hebrew II.**

Not open to native speakers of Hebrew. Continuation of Hebrew 412K, with emphasis on conversation and composition. Four lecture hours a week for one semester. Hebrew 611C and 312L, 412L may not both be counted. Prerequisite: Hebrew 412K (or 312K) with a grade of at least C.

### **HEB 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Hebrew.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **HEB 320K. Hebrew via Popular Culture.**

Three lecture hours a week for one semester. Hebrew 320K and 346 (Topic 7: Hebrew via Popular Culture) may not both be counted. Prerequisite: Hebrew 611C or 412L (or 312L) with a grade of at least C.

### **HEB 320L. Hebrew through the Media.**

Three lecture hours a week for one semester. Hebrew 346 (Topic: Hebrew through the Media) and 320L may not both be counted. Prerequisite: Hebrew 611C.

### **HEB 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Hebrew.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **HEB 130D. Hebrew across Disciplines.**

Students read and discuss Hebrew language materials related to the subject matter of another designated course. One lecture hour a week for one semester. No more than three semester hours may be counted toward the major in either Middle Eastern Studies or Middle Eastern Languages and Culture. May be repeated for credit. Prerequisite: Upper-division standing, Hebrew 611C or 412L, and consent of instructor.

### **HEB 346. Topics in Hebrew Language, Literature, and Culture.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Hebrew 320L.

**Topic 3: Home and Exile in Contemporary Hebrew Literature.** Hebrew 346 (Topic: Exile and Strangeness in Contemporary Hebrew Literature) and 346 (Topic 3) may not both be counted.

**Topic 8: Jerusalem in Israeli Literature.** Same as Jewish Studies 363 (Topic 18: Jerusalem in Israeli Literature). Additional prerequisite: Upper-division standing and Hebrew 412L.

**Topic 9: Mizrahi Writing in Israel.** Same as Jewish Studies 363 (Topic 8) and Middle Eastern Studies 342 (Topic 9). Only one of the following may be counted: Hebrew 346 (Topic 9), Jewish 363 (Topic 8), Middle Eastern Studies 342 (Topic 9). Additional prerequisite: Upper-division

standing, and Hebrew 412L (or 312L) or 320L with a grade of at least C.

### **HEB 346C. Innovation and Technology in Israel.**

Three lecture hours a week for one semester. Hebrew 346 (Topic: Innovation & Tech In Israel) and 346C may not both be counted. Prerequisite: Hebrew 320L.

### **HEB 369. Conference Course in Hebrew Language and Literature.**

Supervised individual study of selected problems in Hebrew language or literature. Conference course. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in Hebrew and consent of instructor.

### **HEB 679H. Honors Tutorial Course.**

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper. Conference course for two semesters. Must be taken for special honors in addition to the major requirement. Prerequisite: For 679HA, upper-division standing and admission to the Hebrew Language and Literature Honors Program; for 679HB, Hebrew 679HA with a grade of A.

## **Graduate Courses**

### **HEB 380C. Topics in Hebrew Language.**

Taught in English. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Advanced Readings in Modern Hebrew.**

**Topic 5: Mishnaic Hebrew/Talmud Aramaic.**

**Topic 8: Biblical Hebrew.**

### **HEB 381H. Intensive Graduate Language Instruction I.**

Intensive cultural and literacy-focused training in Hebrew at the beginning level in preparation for research with Hebrew sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Six lecture hours a week for one semester. Prerequisite: Graduate standing.

### **HEB 381J. Intensive Graduate Language Instruction II.**

Intensive cultural and literacy-focused training in Hebrew at the intermediate level in preparation for research with Hebrew sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Six lecture hours a week for one semester. Prerequisite: Graduate standing and Hebrew 381H with a grade of at least B.

### **HEB 381K. Intensive Biblical Language Instruction I.**

Introduction to the language and texts of the Hebrew Bible, taught in the interactive style of a modern language classroom. Six lecture hours a week for one semester. Prerequisite: Graduate standing.

### **HEB 381L. Intensive Biblical Language Instruction II.**

Continuing the study of the language and texts of the Hebrew Bible, taught in the interactive style of a modern language classroom. Six lecture hours a week for one semester. Prerequisite: Graduate standing and Hebrew 381K with a grade of at least C.

### **HEB 381M. Hebrew Via Popular Culture.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing and Hebrew 381J or the equivalent with a grade of at least C.

### **HEB 381N. Hebrew Through the Media.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing and Hebrew 381M or the equivalent with a grade of at least C.

### **HEB 384C. Topics in Hebrew Literature.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 2: Contemporary Israeli Fiction.**

**Topic 3: Mizrahi Writing in Israel.**

### **HEB 385. Hebrew Literature in Translation and Israeli Media.**

Study of selected works of Hebrew literature in English translation and Israeli film and television programs with English subtitles. Three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary, but no more than six hours may be counted toward the Master of Arts or the Doctor of Philosophy in Hebrew studies. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Post-Zionist Perspectives in Israeli Literature.** Israeli literature through the context of the historical, cultural, and artistic movement known as post-Zionism.

**Topic 2: The Book of Job: Text and Language.** Hebrew 380C (Topic: The Book of Job: Text and Language) and 385 (Topic 2) may not both be counted.

**Topic 3: Dead Sea Scrolls: Language and Literature.**

**Topic 4: Ethnic and Social Israeli Cinema.**

### **HEB 389. Conference Course in Hebrew Studies.**

Supervised individual study of selected problems in Hebrew studies. Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **HEB 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Hebrew studies and consent of the graduate adviser; for 698B, Hebrew 698A.

### **HEB 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Hindi Courses**

## **Hindi: HIN**

### **Lower-Division Courses**

#### **HIN 604. Accelerated First-Year Hindi.**

For speakers of Hindi who have not studied it formally. Six lecture hours a week for one semester. Hindi 604 and 506 may not both be counted; Hindi 604 and 507 may not both be counted; Hindi 604 and Urdu 604 may not both be counted; Hindi 604 and Urdu 506 may not both be counted; Hindi 604 and Urdu 507 may not both be counted.

#### **HIN 506. First-Year Hindi I.**

Not open to native speakers of Hindi. Modern Hindi of India. Five class hours a week for one semester. Hindi 604 and 506 may not both be counted; Hindi 506 and Urdu 604 may not both be counted.

#### **HIN 507. First-Year Hindi II.**

Not open to native speakers of Hindi. Continuation of Hindi 506. Five class hours a week for one semester. Hindi 604 and 507 may not both be counted; Hindi 507 and Urdu 604 may not both be counted. Prerequisite: Hindi 506 with a grade of at least C.

#### **HIN 612. Accelerated Second-Year Hindi.**

Continuation of Hindi 604. Six lecture hours a week for one semester. Hindi 612 and 312K may not both be counted; Hindi 612 and 312L may not both be counted. Prerequisite: Hindi 604 with a grade of at least C.

#### **HIN 312K. Second-Year Hindi I.**

Not open to native speakers of Hindi. Modern Hindi of India. Three lecture hours a week for one semester. Hindi 612 and 312K may not both be counted. Prerequisite: Hindi 507 with a grade of at least C.

#### **HIN 312L. Second-Year Hindi II.**

Not open to native speakers of Hindi. Continuation of Hindi 312K. Three lecture hours a week for one semester. Hindi 612 and 312L may not both be counted. Prerequisite: Hindi 312K with a grade of at least C.

#### **HIN 118. Practice in Spoken Hindi.**

Not open to native speakers of Hindi. Instruction and practice in conversation for intermediate-level students. Two lecture hours a week for one semester. Prerequisite: Hindi 507 with a grade of at least C.

#### **HIN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Hindi.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser of the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

#### **HIN 125. Advanced Practice in Spoken Hindi.**

Instruction and practice in conversation for advanced students. Two lecture hours a week for one semester. Prerequisite: Hindi 118 with a grade of at least C.

#### **HIN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Hindi.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in affiliated studies program. May be repeated for credit when the topics vary.

#### **HIN 330. Topics in Hindi Language and Literature.**

Study of specific subjects related to Hindi culture as reflected in its literary productions and other modes of expression. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Hindi 312L with a grade of at least C.

**Topic 1: Contemporary Hindi Narratives.** Designed to enhance all four language skills: reading, writing, speaking, and listening. Hindi 330 (Topic 1) and 384 (Topic 4: Contemporary Hindi Narratives) may not both be counted.

**Topic 2: Hindi Drama and Film.** Contemporary Hindi plays and film scripts in Devanagari script. Hindi 330 (Topic 2) and 384 (Topic 5: Hindi Drama and Film) may not both be counted.

**Topic 3: Hindi Literature in the Nationalist Era.** Examines the poetry and prose of a diverse group of writers who shaped Hindi literature during the nationalist era. Also includes critical studies in English. Hindi 330 (Topic 3) and 384 (Topic 6: Hindi Literature in the Nationalist Era) may not both be counted.

**Topic 4: Language and Identity at the Margins of Hindi Fiction.** Focuses on the stories and novels of a diverse group of writers, including Muslims, women, Biharis, and Marwaris, who have broadened the landscape of Hindi writing. Hindi 330 (Topic 4) and 384 (Topic 7: Language and Identity at the Margins of Hindi Fiction) may not both be counted.

**Topic 5: Autobiography in Hindi.** Hindi 330 (Topic: Autobiography in Hindi) and 330 (Topic 5) may not both be counted.

### **HIN 330C. Discourses of Identity in Hindi Fiction.**

Explore four prominent identity discourses in Hindi literature involving traditionally marginalized communities or identities in India. Consider writings from women as well as those from marginalized communities such as Dalit, Tribal, and Transgender (Hijra) groups. Focus on texts in the original Hindi, as well as interactive class discussion in Hindi, to develop advanced vocabulary and grammar. Three lecture hours a week for one semester. Hindi 330 (Topic: Debates in Hindi Literature) and 330C may not both be counted. Prerequisite: Hindi 312L with a grade of at least C.

### **HIN 130D. Hindi Across Disciplines.**

Reading and discussion of Hindi language materials related to the subject matter of another designated course in Asian studies, with a focus on linguistic and literary features, and crucial passages. One lecture hour a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit. Prerequisite: Registration for an appropriate Asian studies course, and written consent of instructor on a form obtained from the undergraduate adviser.

### **HIN 330E. Realism and Urbanism in Hindi.**

Focus on texts or films in Hindi to develop vocabulary and grammar, and explore Realism and Urbanism as two prominent themes in twentieth-century Hindi literature. Consider how authors addressed changes in life and family values in the Indian urban middle class, and how they transformed the literary taste of Hindi readership from marvelous tales to reading short stories with social critique. Three lecture hours a week for one semester. Hindi 330 (Topic: Panorama of Hindi Literature) and 330E may not both be counted. Prerequisite: Hindi 312L with a grade of at least C.

### **HIN 332. Style and Register in Hindi.**

Practicing skills in reading, listening, writing, and speaking in everyday social situations and some formal situations. Relevant for students working toward the "Advanced" level on the American Council for the Teaching of Foreign Languages (ACTFL) proficiency scale, and equivalent to level two on the Interagency Language Roundtable (ILR) scale. Three lecture hours a week for one semester. Hindi 330 (Topic: Style and Register in Hindi) and 332 may not both be counted. Prerequisite: Hindi 312L with a grade of at least C.

### **HIN 360. Conference Course in Hindi Language and Literature.**

Supervised individual study of selected problems in Hindi language and literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor on form obtained from the undergraduate adviser.

## **Graduate Courses**

### **HIN 381. Conference Course in Hindi Language and Culture.**

Supervised individual study in Hindi language or culture. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor on a form obtained from the graduate coordinator.

### **HIN 384. Topics in Hindi Language and Culture.**

Study of various aspects and periods of Hindi language and culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and six semester hours of upper-division coursework in Hindi or consent of instructor; additional prerequisites vary with the topic.

**Topic 1: Advanced Reading, Composition, and Conversation I.**

**Topic 2: Advanced Reading, Composition, and Conversation II.**

Additional prerequisite: Hindi 384 (Topic 1).

**Topic 3: Readings in Hindi.**

**Topic 4: Contemporary Hindi Narratives.** Hindi 330 (Topic 1: Contemporary Hindi Narratives) and 384 (Topic 4) may not both be counted.

**Topic 5: Hindi Drama and Film.** Hindi 330 (Topic 2: Hindi Drama and Film) and 384 (Topic 5) may not both be counted.

**Topic 6: Hindi Literature in the Nationalist Era.** Hindi 330 (Topic 3: Hindi Literature in the Nationalist Era) and 384 (Topic 6) may not both be counted.

**Topic 7: Language and Identity at the Margins of Hindi Fiction.** Hindi 330 (Topic 4: Language and Identity at the Margins of Hindi Fiction) and 384 (Topic 7) may not both be counted.

**Topic 8: Style and Register in Hindi.** Practice and improve skills in reading, listening, writing, and speaking for everyday social situations and some formal situations. Relevant to students working toward the "Advanced" level on the American Council for the Teaching of Foreign Languages (ACTFL) proficiency scale, equivalent to level 2 on the Interagency Language Roundtable (ILR) scale. Three lecture hours a week for one semester. Hindi 384 (Topic: Style and Register in Hindi) and 384 (Topic 8) may not both be counted. Additional prerequisite: Graduate standing, and reading and writing comprehension of Hindi equivalent to two academic years' study of Hindi, or consent of instructor.

**Topic 9: Discourses of Identity in Hindi Fiction.** Explore four prominent identity discourses in Hindi literature involving traditionally marginalized communities or identities in India. Consider writings from women as well as those from marginalized communities such as Dalit, Tribal, and Transgender (Hijra) groups. Focus on texts in the original Hindi, as well as interactive class discussion in Hindi, to develop advanced vocabulary and grammar. Hindi 384 (Topic: Debates in Hindi Literature) and 384 (Topic 9) may not both be counted.

**Topic 10: Realism and Urbanism in Hindi.** Focus on texts or films in Hindi to develop vocabulary and grammar, and explore Realism and Urbanism as two prominent themes in twentieth-century Hindi literature. Consider how authors addressed changes in life and family values in the Indian urban middle class, and how they transformed the literary taste of Hindi readership from marvelous tales to reading short stories with social critique. Hindi 384 (Topic: Panorama of Hindi Literature) and 384 (Topic 10) may not both be counted.

## **Professional Courses**

# History Courses

## History: HIS

### Lower-Division Courses

#### **HIS 301F (TCCN: HIST 2321). The Premodern World.**

Same as Ancient History and Classical Civilization 310 (Topic 4). Survey of world history from human origins to the sixteenth century. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: The Premodern World), 310 (Topic 4), History 301F.

#### **HIS 301J (TCCN: HIST 2322). Globalization: A Modern History.**

Survey of world history from the sixteenth century to the present. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: History 301G, 301J, 306N (Topic: Modern World).

#### **HIS 302C. Introduction to China.**

Same as Asian Studies 302C. Introduction to Chinese civilization, past and present, including religion, literature, arts, philosophy, and history. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 302C, History 302C, 306N (Topic: Introduction to China).

#### **HIS 304K. English Civilization before 1603.**

Survey of English civilization from Roman times to the death of Queen Elizabeth I. Three lecture hours a week for one semester.

#### **HIS 304L. English Civilization since 1603.**

Survey of English history from the seventeenth century to the present. Three lecture hours a week for one semester.

#### **HIS 304Q. Luther's World.**

Same as European Studies 306 (Topic 6), German, Scandinavian, and Dutch Studies 311G, and Religious Studies 315M. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Luther's World), 306 (Topic 6), German, Scandinavian, and Dutch Studies 310 (Topic: Luther's World), 311G, History 304Q, 306N (Topic: Luther's World), Religious Studies 315 (Topic: Luther's World), 315M.

#### **HIS 304R. Judaism, Christianity, and Islam: An Introduction.**

Same as Islamic Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction), Jewish Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction), and Religious Studies 304. Examines the intertwined historical developments of the religions of Judaism, Christianity, and Islam, and explores the principal beliefs and practices of Jews, Christians, and Muslims. Three lecture hours a week for one semester.

#### **HIS 305K. History of East Asia to 1800.**

Same as Asian Studies 301M (Topic 3: History of East Asia to 1800). A survey of the traditional history and culture of China, Japan, Korea, and Vietnam. Three lecture hours a week for one semester.

#### **HIS 305L. History of East Asia since 1800.**

Same as Asian Studies 301M (Topic 4: History of East Asia since 1800). A survey of the modern history of China, Japan, Korea, and Vietnam. Three lecture hours a week for one semester.

#### **HIS 306J. Introduction to the Middle East: Adjustment and Change in Modern Times.**

Same as Government 303D and Middle Eastern Studies 301L. The responses of the societies of the Middle East and North Africa (Turkey, Iran, Afghanistan, Israel, and the Arab world) to Western cultural and political challenges, primarily since about 1800. Three lecture hours a week for one semester. Only one of the following may be counted: Government 303D, 314 (Topic 3), History 306J, 306N (Topic 5), Middle Eastern Studies 301L.

#### **HIS 306K. Introduction to the Middle East: Religious, Cultural, and Historical Foundations.**

Same as Middle Eastern Studies 301K and Religious Studies 314K. A survey of the history and civilization of the Middle East from the sixth to the fourteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: History 306K, Middle Eastern Studies 301K, Religious Studies 314 (Topic: Intro M East: Rel/Cul/Hist Fnd), 314K.

#### **HIS 306N. Topics in History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 3: Key Ideas and Issues in Latin America.** Same as Latin American Studies 301. Broad introductory course to acquaint students with the main areas of interest in Latin American studies.

**Topic 4: Introduction to Russian, East European, and Eurasian Studies: History.** History 306N (Topic 4) and Russian, East European, and Eurasian Studies 301 may not both be counted.

**Topic 7: Introduction to Islam.** Same as Asian Studies 301M (Topic 15), Islamic Studies 310, and Religious Studies 319. The beliefs, theology, history, and main social and legal institutions of Islam, including the concept of God and society, the role of women, and Islamic government and movements. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 15), History 306N (Topic 7), Islamic Studies 310, Religious Studies 319.

**Topic 10: Jewish Civilization: Beginnings to 1492.** Same as Jewish Studies 304M, Middle Eastern Studies 310 (Topic 6), and Religious Studies 313M. Introduction to the history, culture, and religion of the Jewish people from around 1000 BC to the end of the medieval period. Subjects may include ancient Israel, late Second Temple sectarianism, the rise of Christianity, rabbinic Judaism, medieval Jewish philosophy, Jewish mysticism, and Hebrew poetry. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Jewish Civilization I), 306N (Topic 10), Jewish Studies 304M, 311 (Topic: Jewish Civilization I), Middle Eastern Studies 310 (Topic: Jewish Civilization: Beginnings to 1492), 310 (Topic 6), Religious Studies 313 (Topic: Jewish Civilization I), 313M.

**Topic 11: Jewish Civilization: 1492 to the Present.** Same as European Studies 306 (Topic 4), Jewish Studies 304N, and Religious Studies 313N. Subjects may include trends toward secularization, the emancipation of European Jewry, the emergence of American Jewry, the Holocaust, the establishment of the State of Israel, and the Arab-Israeli conflict. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Jewish Civilization: 1492 to the Present), 306 (Topic 4), History 306N (Topic 11), Jewish Studies 304N, 311 (Topic: Jewish Civilization: 1492 to the Present), Religious Studies 313 (Topic: Jewish Civilization: 1492 to the Present), 313N.

**Topic 12: Introduction to Modern North Africa.** Same as Middle Eastern Studies 310N and Religious Studies 317N. Introduction to the major themes of North African history from the sixteenth century to the present. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Intro to Modern

North Africa), 306N (Topic 12), Middle Eastern Studies 310 (Topic: Intro Modern North Africa), 310N, Religious Studies 317 (Topic: Intro Modern North Africa), 317N.

**Topic 13: Introduction to the History and Culture of Spain.** Same as Ancient History and Classical Civilization 310 (Topic 1) and European Studies 306 (Topic 2). The history of Spain from its beginnings in the stone age through the great social and economic upheavals of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Introduction to the History and Culture of Spain), 310 (Topic 1), European Studies 306 (Topic: Introduction to the History and Culture of Spain), 306 (Topic 2), History 306N (Topic: Introduction to the History and Culture of Spain), 306N (Topic 13).

**Topic 14: Prague, Magic, and the Struggle for Power.** Same as Russian, East European, and Eurasian Studies 302 (Topic 2). Examines historical texts from four different magical traditions to find the truth behind the fiction and the historical events that sometimes permitted and sometimes persecuted the religions, philosophies, and sciences that some call magic. Only one of the following may be counted: Czech 301K (Topic: Magic and Power in Prague: The Struggle for Power), 301K (Topic 2), History 306N (Topic: Magic and Power in Prague: The Struggle for Power), 306N (Topic 14), Religious Studies 306 (Topic: Magic and Power in Prague: The Struggle for Power), Russian, East European, and Eurasian Studies 302 (Topic: Magic and Power in Prague: The Struggle of Power), 302 (Topic 2).

**Topic 15: History of Human Sexuality.** Same as Women's and Gender Studies 301 (Topic 28). The history of human sexuality is approached from four angles: sexual behaviors; sexual consequences; sexual regulation, and sexual science. Only one of the following may be counted: History 306N (Topic: History of Human Sexuality), 306N (Topic 15), Women's and Gender Studies 301 (Topic: History of Human Sexuality), 301 (Topic 28).

### **HIS 306Q. The Ancient Middle East.**

Same as Ancient History and Classical Civilization 310 (Topic 3), Middle Eastern Languages and Cultures 301J, and Middle Eastern Studies 301J. Survey the history of the Middle East from the beginning of the Neolithic period (9000 BCE) through the invasion of the region by Alexander the Great in 332 BCE and into the pre-Islamic era. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic 3), History 306Q, Middle Eastern Languages and Cultures 301J, Middle Eastern Studies 301J.

### **HIS 307C. Introduction to the History of India.**

Same as Asian Studies 307C. Survey of the history of the Indian subcontinent from prehistoric times to the present. Three lecture hours a week for one semester.

### **HIS 307Q. Introduction to Holocaust and Genocide Studies.**

Same as Government 307 and Jewish Studies 307. Examine interdisciplinary perspectives (including historical, political, socio-psychological, and cultural methods and insights) on genocide as a global phenomenon. Three lecture hours a week for one semester. Only one of the following may be counted: Government 307, History 307Q, Jewish Studies 307.

### **HIS 309C. Medieval Material Culture.**

Same as Ancient History and Classical Civilization 310 (Topic 6) and Religious Studies 309C. Explore the history of medieval Europe primarily through the lens of material culture. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Medieval Material Culture), 310 (Topic 6), History 306N (Topic: Medieval Material Culture), 309C, Religious Studies 309C, 315 (Topic: Medieval Material Culture).

### **HIS 309J. The Roots of Religious Toleration.**

Same as European Studies 306 (Topic 3), Jewish Studies 311C, and Religious Studies 306D. Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 310 (Topic: Roots of Religious Toleration), European Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 3), History 309J, 317N (Topic: Roots of Religious Toleration), 317N (Topic 1), Jewish Studies 311 (Topic: Roots of Religious Toleration), 311 (Topic 5), 311C, Religious Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 1), 306D.

### **HIS 309K (TCCN: HIST 2311). Western Civilization in Medieval Times.**

Same as Ancient History and Classical Civilization 310 (Topic 2) and Core Texts and Ideas 307E. Survey of medieval Europe from late antiquity to the fifteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Western Civ in Medieval Times), 310 (Topic 2), Core Texts and Ideas 307E, 310 (Topic: Western Civ in Medieval Times), History 309K.

### **HIS 309L (TCCN: HIST 2312). Western Civilization in Modern Times.**

Same as Core Texts and Ideas 307M. Survey of European civilization since the fifteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 307M, 310 (Topic: Western Civ in Modern Times), History 309L.

### **HIS 309M. The Medieval Millennium in Europe.**

Same as Ancient History and Classical Civilization 310 (Topic 5). Explore new conceptions of medieval Europe by examining how the social practices, ideas, and institutions of the middle ages developed through interactions with Europe's neighbors. Three lecture hours a week for one semester. Ancient History and Classical Civilization 310 (Topic 5) and History 309M may not both be counted.

### **HIS 310. Introduction to Modern Africa.**

Same as African and African Diaspora Studies 310K. Introduction to modern Africa, with focus on colonial and postcolonial development in political organization, economics, sociolinguistics, and literature. Three lecture hours a week for one semester.

### **HIS 310K. Latin American Civilization: The Colonial Experience.**

Same as Latin American Studies 310 (Topic 1: Latin American Civilization: The Colonial Experience). A broad survey of the political, economic, social, and cultural aspects of the Latin American past, stressing both that area's achievements and its enduring problems. Three lecture hours a week for one semester. Only one of the following may be counted: History 310K, 346K, Latin American Studies 310 (Topic 1), 366 (Topic 2: Latin America before 1810).

### **HIS 310L. Latin American Civilization: The National Experience.**

Same as Latin American Studies 310 (Topic 2: Latin American Civilization: The National Experience). A broad survey of the political, social, and cultural aspects of the Latin American past. Three lecture hours a week for one semester. Only one of the following may be counted: History 310L, 346L, Latin American Studies 310 (Topic 2), 366 (Topic 3: Latin America since 1810).

### **HIS 310M. Film and History in Latin America: Colonial Period.**

Same as Latin American Studies 310 (Topic 5). Introduction to selected subjects in Latin American history and culture through film, readings,

documentaries, class discussion, and lectures. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Film History in Latin America: Colonial), 310M, Latin American Studies 310 (Topic: Film History in Latin America: Colonial), Latin American Studies 310 (Topic 5).

### **HIS 310N. Film and History in Latin America: Modern Period.**

Same as Latin American Studies 310 (Topic 6). Introduction to selected subjects in Latin American history and culture through film, readings, documentaries, class discussion, and lectures. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Film History in Latin America: Modern), 310N, Latin American Studies 310 (Topic: Film History in Latin America: Modern), 310 (Topic 6).

### **HIS 310R. Latin America and the United States.**

Same as Latin American Studies 310R. An exploration of the different social, economic, political, and cultural structures and concerns that came to both divide and unite the western hemisphere (North, Central, and South America, as well as the Caribbean) following independence from Europe. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Latin America and the US), 310R, Latin American Studies 310 (Topic: Latin America and the US), 310R.

### **HIS 311J. The History of Israel.**

Same as Jewish Studies 311 (Topic 7) and Middle Eastern Studies 311. An introduction to the history of Israel, from the emergence of the modern Zionist movement beginning in 1881 to the present. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: History of Israel), 311J, Jewish Studies 311 (Topic: History of Israel), 311 (Topic 7), Middle Eastern Studies 310 (Topic: History of Israel), 311.

### **HIS 311K. Introduction to Traditional Africa.**

Same as African and African Diaspora Studies 310L. Introductory, interdisciplinary course on the peoples and cultures of Africa. Three lecture hours a week for one semester.

### **HIS 314K (TCCN: HIST 2328). History of Mexican Americans in the United States.**

Same as Mexican American Studies 316. Examines the origin and growth of the Mexican American community in the United States. Three lecture hours a week for one semester. History 314K and Mexican American Studies 316 may not both be counted.

### **HIS 315G. Introduction to American Studies.**

Same as American Studies 310. An interdisciplinary introduction to the historical exploration of American culture. Three lecture hours a week for one semester. American Studies 310 and History 315G may not both be counted.

### **HIS 315K (TCCN: HIST 1301). The United States, 1492-1865.**

Survey of United States history from the colonial period through the Civil War. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

### **HIS 315L (TCCN: HIST 1302). The United States since 1865.**

Survey of United States history since the Civil War. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

### **HIS 317L (TCCN: HIST 2327, HIST 2381, HIST 2382). Topics in United States History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **Topic 1: Colonial America.**

#### **Topic 2: The Era of the American Revolution.**

**Topic 3: Introduction to African American History.** Same as African and African Diaspora Studies 315K. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315K, 317D (Topic 1), History 317L (Topic 3).

**Topic 4: Introduction to Asian American History.** Same as Asian American Studies 312. Introduces students to the national and transnational histories of Asian Americans in the United States. Explores a wide range of themes related to the Asian American experience. Asian American Studies 312 and History 317L (Topic 4) may not both be counted.

**Topic 5: United States Women, Sexuality, and Gender to 1865.** Same as Women's and Gender Studies 301 (Topic 11). History 317L (Topic 5) and Women's and Gender Studies 301 (Topic 11) may not both be counted.

**Topic 6: The United States in the 17th-Century Atlantic World.** The United States during a period marked by the spread of knowledge and experience of the world through conflict, economic exchange, cultural creativity, exploration, New World colonization, technological innovation, and religious reformation and counter-reformation.

**Topic 7: The United States and Africa.** Same as African and African Diaspora Studies 315G. History of political, economic, and cultural relations between the United States and Africa from the early origins of the slave trade to the present. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315G, 317C (Topic 1), History 317L (Topic 7).

**Topic 8: Introduction to Native American Histories.** Same as American Studies 315O. Examine the history of Native American societies in North America from the earliest records to the present. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Intro to Native Am Histories), 315 (Topic: Intro to Amer Indian History), 315O, History 317L (Topic 8).

**Topic 9: The Black Power Movement.** Same as African and African Diaspora Studies 315N. Examines the major organizations, key figures, and ideologies of the Black Power movement from the late 1960s and early 1970s. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315N, 317D (Topic 3), History 317L (Topic 9).

**Topic 10: Rights in Modern America.** Same as African and African Diaspora Studies 316C, American Studies 315J, and Women's and Gender Studies 301 (Topic 32). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 316C, 317D (Topic: Rights in Modern America), American Studies 315 (Topic: Rights in Modern America), 315J, History 317L (Topic: Rights in Modern America), 317L (Topic 10), Women's and Gender Studies 301 (Topic: Rights in Modern America), 301 (Topic 32).

**Topic 11: Latino Histories.** Same as Mexican American Studies 319 (Topic 3). Explore the cultures, politics, and policies that shape the many Latino histories in the United States. Only one of the following may be counted: History 317L (Topic: Latino Histories), 317L (Topic 11), Mexican American Studies 319 (Topic: Latino Histories), 319 (Topic 3).

**Topic 12: Mexican American Women, 1910-Present.** Same as Mexican American Studies 319 (Topic 4) and Women's and Gender Studies 301 (Topic 13). Examines the history of Mexican and Mexican American women in the United States from the twentieth century to the present. Only one of the following may be counted: History 317L (Topic: Mexican American Women, 1910-Present), 317L (Topic 12), Mexican

American Studies 319 (Topic: Mexican American Women, 1910-Present), 319 (Topic 4), Women's and Gender Studies 301 (Topic: Mexican American Women, 1910-Present), 301 (Topic 13).

**Topic 13: Origins of American Revolution.** Focuses on the rise and fall of the British-American Atlantic Empire in the third quarter of the eighteenth century. Three lecture hours a week for one semester. History 317L (Topic: Origins of American Revolution) and 317L (Topic 13) may not both be counted.

**Topic 14: Building America: Engineering, Society, and Culture, 1868-1980.** Same as American Studies 315P. Examines building in American society from the late 1860s to 1980. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Building America), 315P, History 317L (Topic 14).

**Topic 15: Establishing America, 1565-1815.** Introduction to the foundations of American History. History 317L (Topic: Establishing America, 1565-1815) and 317L (Topic 15) may not both be counted.

**Topic 16: History of Religion in the United States.** Same as American Studies 315 (Topic 5) and Religious Studies 316C. Explores instances of religious dominance and religious diversity in United States history. Moving from the pre-colonial period to the present, it examines the changing circumstances of several religious communities, including American Indians and Puritans, Protestant evangelicals, Mormons, Roman Catholics, Jews, Muslims, and Hindus. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic 5), History 317L (Topic 16), Religious Studies 316C, 316U (Topic 1).

**Topic 17: Reading United States History Between the Lines.** Explores how historians read between the lines and where they look for clues, looking at the many methods historians use to discover and make sense of their evidence.

**Topic 18: Immigration and Ethnicity.** Same as Asian American Studies 302 and Mexican American Studies 316C. Examine the changing population of the United States from colonial times to present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 302, 310 (Topic: Immigration and Ethnicity), History 317L (Topic: Immigration and Ethnicity), 317L (Topic 18), Mexican American Studies 316C, 319 (Topic: Immigration and Ethnicity).

**Topic 19: The Alamo in History and in Film.** Examine the story of the Battle of the Alamo through film, readings, and primary documents drawn from both sides of the event. Three lecture hours a week for one semester. History 317L (Topic: Regarding the Alamo in History) and 317L (Topic 19) may not both be counted.

**Topic 20: Introduction to African American Women's History.** Same as African and African Diaspora Studies 315I and Women's and Gender Studies 301 (Topic 34). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 310 (Topic: Intro Afr Amer Women's Hist), 315I, History 317L (Topic: Intro Afr Amer Women's Hist), 317L (Topic 20), Women's and Gender Studies 301 (Topic 34).

### **HIS 318N. Discovery History.**

Analyzes claims from popular books in the light of accurate historical sources. Introduction to the process of making discoveries in historical research. Three lecture hours a week for one semester. Only one of the following may be counted: History 317N (Topic: Discovery History), 317N (Topic 4), 318N.

### **HIS 318Q. Supervised Research.**

Individual instruction.

### **HIS 319D. The Ancient Mediterranean World.**

Same as Ancient History and Classical Civilization 319D and Classical Civilization 319D. Survey of the ancient Mediterranean from ca. 3000

BC to AD 476. Focus on the development of ideas and institutions in the Greek and Roman worlds and on the active cultural exchange among the diverse civilizations of the broader region that shaped Greek and Roman history and cultural identity. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 319 (Topic 1), 319D, European Studies 301 (Topic: Ancient Mediterranean World), 306 (Topic: Ancient Mediterranean World), Middle Eastern Studies 310 (Topic: Ancient Mediterranean World), Classical Civilizations 319D, History 319D.

### **HIS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in History.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **HIS 320E. Texas before 1900.**

Same as Mexican American Studies 320E. Focus on the basic history of Texas from roughly 1450 to 1900. Investigate major events such as the Texas Revolution and Civil War with an emphasis on how and why Texas, its culture, and its groups of people changed or did not change over time. Three lecture hours a week for one semester. Only one of the following may be counted: History 320E, 320L, 320P, Mexican American Studies 320E, 320L. Prerequisite: Upper-division standing.

### **HIS 320F. Texas, 1900 to the Present.**

Same as Mexican American Studies 320F and Urban Studies 322T. Examine the steady dissociation of Texas from its Old South status to a transitional state and a power in national politics. Three lecture hours a week for one semester. Only one of the following may be counted: History 320F, 320R, Mexican American Studies 320F, 374 (Topic 16), Urban Studies 322T, 353 (Topic 2). Prerequisite: Upper-division standing.

### **HIS 320W. Thinking Like a Historian.**

To understand history as an academic discipline in terms of research methods, evidence, and analysis. Three lecture hours a week for one semester. Only one of the following may be counted: History 317N (Topic: Thinking Like a Historian), 317N (Topic 2), 318W, 320W. Prerequisite: Nine semester hours of coursework in history.

### **HIS 321. The History of Rome: The Empire.**

Same as Ancient History and Classical Civilization 325 (Topic 2). A survey of the Roman world from Augustus to Constantine the Great. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 2), Core Texts and Ideas 375 (Topic: History of Rome: The Empire), European Studies 346 (Topic: History of Rome: The Empire), History 321. Prerequisite: Upper-division standing.

### **HIS 321J. Africa and Rome.**

Same as African and African Diaspora Studies 340U, Classical Civilization 348P, and Middle Eastern Studies 343 (Topic 15). Explore the history of Roman Africa with emphasis on what is now Tunisia and northern Algeria. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340U, 370 (Topic: Africa and Rome), 374C (Topic: Africa and Rome), Ancient History and Classical Civilization 330 (Topic: Africa and Rome), Classical Civilization 348 (Topic: Africa and Rome), 348P, History 321J, 364G (Topic: Africa and Rome), 366N (Topic: Africa and Rome),

Middle Eastern Studies 343 (Topic: Africa and Rome), 343 (Topic 15). Prerequisite: Upper-division standing.

### **HIS 321M. The History of Rome: The Republic.**

Same as Ancient History and Classical Civilization 325 (Topic 1) and Core Texts and Ideas 327D. A survey of Roman history from the founding of Rome to the death of Julius Caesar. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 1), Core Texts and Ideas 327D, 375 (Topic: Hist of Rome: The Republic), History 321M. Prerequisite: Upper-division standing.

### **HIS 322C. Cultural History of World Science to 1650.**

Cultural history of science from ancient times to the seventeenth century. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 322D. The Scientific Revolution of the Seventeenth Century.**

The history of science and its place in society from the mid-sixteenth century to the time of Isaac Newton. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 322G. History of the Modern Life Sciences.**

History of the life sciences from the eighteenth century to the present. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 322M. History of Modern Science.**

The history of science and its place in society from the time of Newton to the present. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 322R. Biology, Behavior, and Injustice.**

Same as Core Texts and Ideas 374. Explores questions about human behavior related to biological factors as compared with personal experiences and societal standards. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 370 (Topic 2), 374, History 322R, 366N (Topic 16). Prerequisite: Upper-division standing.

### **HIS 322S. The History of Genetics and Eugenics.**

The history of genetics and eugenic practices in the twentieth century. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 323L. Europe since 1919.**

Same as European Studies 346 (Topic 24). Survey course emphasizing the impact of the two world wars on European social, political, and cultural life in the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Europe since 1919), 346 (Topic 24), History 323L. Prerequisite: Upper-division standing.

### **HIS 325Q. Russian Orthodox Religion and Culture.**

Same as Religious Studies 357W and Russian, East European, and Eurasian Studies 325 (Topic 41). Examine the role and force of the Orthodox Church in Russian history, from the Christianization of the pagan Slavs in the 10th century, through the Russian Revolution into the Soviet era, and up to the present, while considering the prescriptive tenets of the Orthodox faith (religion) alongside descriptive experiences of life within and under Russian Orthodoxy (religiosity). Three lecture hours a week for one semester. Only one of the following may be counted: History 325Q, 366N (Topic: Rus Orthodox Religion/Cultr), Religious Studies 357 (Topic: Rus Orthodox Religion/Cultr), 357W,

Russian, East European and Eurasian Studies 325 (Topic: Rus Orthodox Religion/Cultr), 325 (Topic 41). Prerequisite: Upper-division standing.

### **HIS 328M. Modern Brazil.**

Same as Latin American Studies 366 (Topic 12: Modern Brazil). The social, economic, political, and cultural forces that have shaped modern Brazil. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 329P. History of the Atomic Bomb.**

The development, use, and influence of nuclear weapons from the 1930s to 1954. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in History.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **HIS 329U. Perspectives on Science and Mathematics.**

Explores the intellectual, social, and cultural history of science and mathematics, focusing on the 17th century to the present. Designed for students in the UTeach-Natural Sciences program. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: History 329U, 366N (Topic: Perspectives on Science and Mathematics), Philosophy 329U. Prerequisite: Upper-division standing.

### **HIS 331C. History of the Ottoman Empire.**

Same as Middle Eastern Studies 331C. A survey of Ottoman society and culture and of the empire's place on the world scene. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 331G. History of Iran to 1800.**

Same as Middle Eastern Studies 343 (Topic 3). A survey of the social, economic, and religious components unique to Iran from the pre-Islamic empire of the Achaemenids through the development of Iran as a medieval and premodern Islamic state. History 331G and Middle Eastern Studies 343 (Topic 3) may not both be counted. Prerequisite: Upper-division standing.

### **HIS 331J. History of the Arab World.**

A general survey of the origins and development of Arabic civilization. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 331L. Modern Iran.**

Same as Islamic Studies 373 (Topic 22) and Middle Eastern Studies 343 (Topic 6). Explore the development of modern Iran; special attention is given to the impact of the West, the constitutional movement, nationalism, the oil crisis, and the Islamic Revolution of 1979. Three lecture hours a week for one semester. Only one of the following may be counted: History 331L, Islamic Studies 373 (Topic: Modern Iran), 373 (Topic: 22), Middle Eastern Studies 343 (Topic: 6). Prerequisite: Upper-division standing.

### **HIS 331R. Re-forming the Arab East, 1914-Present.**

Same as Middle Eastern Studies 343 (Topic 2). Introduction to the history of the Middle East in the twentieth century. Examines forces that transformed the area from a relatively peaceful region to a radicalized

environment. Explores colonialism, nationalism, secular modernism, impact of Zionism, rise of political Islam, status of women, and the oil revolution. Only one of the following may be counted: History 331R, History 364G (Topic: Re-forming the Arab East), Middle Eastern Studies 343 (Topic 2). Prerequisite: Upper-division standing.

### **HIS 332G. European Intellectual History from the Enlightenment to Nietzsche.**

Explores significant intellectual developments in Europe throughout the nineteenth century. Themes include romanticism, positivism, socialism, and nihilism. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 332J. Twentieth-Century European Intellectual History.**

Explores significant intellectual developments in Europe in the twentieth century. Topics include psychoanalysis, sociology, existentialism, and poststructuralism. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 332R. Marx and Marxist Theory.**

Same as Core Texts and Ideas 335M, European Studies 346 (Topic 30), and Philosophy 342M. Introduction to the writings of Karl Marx as well as to those of his intellectual successors in Europe and around the globe in the nineteenth and twentieth centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Marx and Western Marxism), 335M, European Studies 346 (Topic: Marx and Western Marxism), 346 (Topic 30), History 332R, 362G (Topic: Marx and Western Marxism), Philosophy 334K (Topic: Marx and Western Marxism), 342M. Prerequisite: Upper-division standing.

### **HIS 333L. United States Foreign Relations, 1776-1914.**

The history of United States foreign policy and diplomacy from the founding of the United States to the outbreak of the First World War. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 333M. United States Foreign Relations, 1914 to the Present.**

The history of United States foreign policy and diplomacy from the First World War to the present. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 334C. Music Cultures of the Middle East, Past and Present.**

Same as Middle Eastern Studies 334C. A historical and ethnomusicological survey of the Arab, Turkish, and Persian music cultures. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 334E. Modern Egypt: A History.**

Same as Islamic Studies 373 (Topic 5) and Middle Eastern Studies 343 (Topic 1). Critically examines the social, political, and intellectual dynamics that shaped the different forms of political community, economic organization, and public culture over the past century. Covers colonialism, liberalism, Arab socialism, authoritarian capitalism, and Islamic republicanism. Three lecture hours a week for one semester. Only one of the following may be counted: History 334E, History 364G (Topic: Modern Egypt: A History), Islamic Studies 372 (Topic: Modern Egypt: A History), 373 (Topic 5), Middle Eastern Studies 343 (Topic 1). Prerequisite: Upper-division standing.

### **HIS 334J. History of Britain from the Restoration to 1783.**

Same as European Studies 346 (Topic 26). Surveys the political, social, economic, and intellectual history of England and Great Britain from the restoration of the Stuart monarchy in 1660 to the conclusion of the War

for American Independence in 1783. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: History of Britain from the Restoration to 1783), 346 (Topic 26), History 334J. Prerequisite: Upper-division standing.

### **HIS 334L. The American Revolution and the Founding of the United States, 1763-1800.**

The Revolutionary transformation of America between 1763 and 1800. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 337N. Germany in the Twentieth Century.**

Same as Liberal Arts Honors 352C and Russian, East European, and Eurasian Studies 335 (Topic 11). Survey of German political and military institutions, economic development, culture, and society. Three lecture hours a week for one semester. Only one of the following may be counted: History 337N, Liberal Arts Honors 350 (Topic: Germany in the 20th Century), 352C, Russian, East European, and Eurasian Studies 335 (Topic 11). Prerequisite: Upper-division standing and a grade point average of at least 3.5.

### **HIS 339Q. Medieval Middle East History in One Hundred Objects.**

Same as Art History 328L, Islamic Studies 373 (Topic 21), and Middle Eastern Studies 343 (Topic 11). Survey the history of the medieval Middle East, from the period of Late Antiquity (in the seventh century) to the rise of early modern empires of the Safavids, Ottomans, and Mughals (in the seventeenth century), through close examination of the meaning and significance of 100 objects. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328L, 363 (Topic: Mid East Hist in 100 Objects), History 339Q, 364G (Topic: Mid East Hist in 100 Objects), Islamic Studies 373 (Topic: Mid East Hist in 100 Objects), 373 (Topic 21), Middle Eastern Studies 343 (Topic: Mid East Hist in 100 Objects), 343 (Topic 11). Prerequisite: Upper-division standing.

### **HIS 339S. Sufism: Islamic Thought and Spirituality.**

Same as Asian Studies 340Q, Middle Eastern Studies 342S, and Religious Studies 358I. Explore Sufism and other Islamic mystical traditions that color cultural milieus spanning four continents and fourteen centuries. Focus on the historical developments in the Islamic theosophical tradition, as well as the relationship between Sufism and poetics, colonialism, and post-colonial resistance movements. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic 8), 340Q, 361 (Topic: Sufism and Islam Mysticism), History 339S, 366N (Topic: Sufism and Islam Mysticism), Islamic Studies 340 (Topic 4), Middle Eastern Studies 342 (Topic: Sufism and Islam Mysticism), 342 (Topic 24), 342S, Religious Studies 358 (Topic 4), 358I, 361 (Topic: Sufism and Islam Mysticism). Prerequisite: Upper-division standing.

### **HIS 340L. Post-Mao China: Change and Transformation.**

Same as Asian Studies 340L. Examines in a historical context the Chinese economy, society, politics, and culture during the reform era that began in the late 1970s. Explores the transformation of rural and urban economies and related social consequences; government systems, political ideologies, and popular values; and China's integration into the global system and its impact on China's role in world politics. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340L, 361 (Topic: Post-Mao China: Change and Transformation), History 340L, 364G (Topic: Post-Mao China: Change and Transformation). Prerequisite: Upper-division standing.

**HIS 340M. Modern China.**

Same as Asian Studies 340M. History of China from the intrusion of the West circa 1500 to the Communist revolution. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 340P. European Expansion in Asia.**

Same as Asian Studies 340P. European exploration, the commerce of the East India Companies, and the beginnings of empire in South and Southeast Asia from the fifteenth to the early nineteenth century. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 340R. European Empires in Asia.**

Same as Asian Studies 340R. The British in India and Malaya, the Dutch in Indonesia, and the French in Indochina since 1800. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 340S. The Chinese in the United States.**

Same as Asian American Studies 325D and Asian Studies 340S. History of the Chinese in the United States from their first arrival in significant numbers during the California Gold Rush of the mid-nineteenth century to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Chinese in the United States), 325 (Topic 3), 325D, Asian Studies 340S, History 340S. Prerequisite: Upper-division standing.

**HIS 340T. Taiwan: Colonization, Migration, and Identity.**

Same as Asian American Studies 325E and Asian Studies 340T. Explores issues of ethnicity, empire, and modernization in East Asia from the sixteenth century to the present, as seen through encounters between Taiwan and aborigines, Han Chinese, Dutch, Portuguese, the imperial Qing, Japanese, mainland Chinese Nationalist Party (KMT), and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic 4), 325E, Asian Studies 340T, History 340T. Prerequisite: Upper-division standing.

**HIS 340U. The Cultural Outsider: Memoirs of East Asia.**

Same as Asian Studies 379 (Topic 11). Focus is on the cultural outsider's perceptions of East Asia in greater "travel" dating from as early as Marco Polo up to works published in contemporary America. Selected memoirs and travelogues are presented from the perspective of the cultural outsider, written by missionaries, colonizers, journalists, POW's, scholars, students, and tourists. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 379 (Topic: Cul Outsider: Memoirs/E Asia), 379 (Topic 11), History 340U, 364G (Topic: Cul Outsider: Memoirs/E Asia). Prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

**HIS 340V. Big Asian Histories.**

Same as Anthropology 322F and Asian Studies 361M. Examines ways in which Asia and other areas of the globe have had connected intellectual, artistic, and social developments with focus on world histories centrally involving Asia from the medieval period to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322F, 324L (Topic: Big Asian Histories), Asian Studies 361 (Topic: Big Asian Histories), 361M, History 340V, 364G (Topic: Big Asian Histories). Prerequisite: Upper-division standing.

**HIS 341K. Origins of Modern Japan.**

Same as Asian Studies 341K. Japan to the beginnings of the Industrial Revolution, with a focus on the culminating age of samurai rule, the

Tokugawa period (1600-1867). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 341M. Imperial Japan.**

Same as Asian Studies 341M. Japan from the Meiji transformation through war, defeat, and occupation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 342C. Postwar Japan.**

Same as Asian Studies 341N. Japan since the war and occupation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 342D. Political Economy of Japan.**

Same as Asian Studies 342D. Historical development of the Japanese economy since early modern times. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 343. The Age of Reformation.**

Same as Core Texts and Ideas 355R and Religious Studies 344. Examines late medieval religion, the rise of Protestant movements, and the Catholic response in their cultural, political, and social contexts. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 355R, 375 (Topic: The Age of Reformation), History 343, Religious Studies 344. Prerequisite: Upper-division standing.

**HIS 343C. Transnational Asia: From the Middle East to the Far East.**

Same as Asian Studies 361R and Middle Eastern Studies 343 (Topic 21). Examine how various groups of people understood, experienced, and imagined concepts such as "the East" and "Asia" with a primary focus on the nineteenth and twentieth centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Transnational Asia), 361R, History 343C, Middle Eastern Studies 343 (Topic: Transnational Asia), 343 (Topic 21). Prerequisite: Upper-division standing.

**HIS 343E. Modern Middle East History in One Hundred Objects.**

Same as Art History 328M, Islamic Studies 373 (Topic 23), and Middle Eastern Studies 343 (Topic 12). Survey the history of the medieval Middle East, from 1500 to the present, through close examination of the meaning and significance of 100 objects. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328M, 366P (Topic: Mod Mid East In 100 Objects), History 343E, 364G (Topic: Mod Mid East In 100 Objects), Islamic Studies 373 (Topic: Mod Mid East In 100 Objects), 373 (Topic 23), Middle Eastern Studies 343 (Topic: Mod Mid East In 100 Objects), 343 (Topic 12). Prerequisite: Upper-division standing.

**HIS 343G. Italian Renaissance, 1350-1550.**

Same as European Studies 346 (Topic 27) and Religious Studies 356C. Survey of political, socioeconomic, religious, and intellectual trends during the Italian Renaissance. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Italian Renaissance, 1350-1550), 346 (Topic 27), History 343G, Religious Studies 356C, 357 (Topic: Italian Renaissance, 1350-1550). Prerequisite: Upper-division standing.

**HIS 343L. History of Russia to 1917.**

Same as Russian, East European, and Eurasian Studies 335 (Topic 5: History of Russia to 1917). Survey of Russian history from seventeenth-

century Muscovy to the fall of the Romanovs in 1917. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 343M. History of Russia since 1917.**

Same as Russian, East European, and Eurasian Studies 335 (Topic 6: History of Russia since 1917). A survey of Russian history from the revolution of 1917 to the collapse of the Soviet Union. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 343P. History of Witchcraft.**

A study of witch beliefs and witchcraft prosecutions in western Europe and colonial America, mainly between 1100 and 1700. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 343Q. Russian Food Ways.**

Same as Russian, East European, and Eurasian Studies 325C. Three lecture hours a week for one semester. Only one of the following may be counted: History 343Q, 362G (Topic: Russian Food Ways), Russian, East European, and Eurasian Studies 325 (Topic: Russian Food Ways), 325C. Prerequisite: Upper-division standing.

### **HIS 343R. Revolutionary Russia.**

Same as Russian, East European, and Eurasian Studies 335 (Topic 25). An in depth examination of the political, social, economic, and cultural dynamics at work in early twentieth-century Russia. Three lecture hours a week for one semester. Only one of the following may be counted: History 343R, 350L (Topic: Revolutionary Russia), Russian, East European, and Eurasian Studies 335 (Topic: Revolutionary Russia), 335 (Topic 25). Prerequisite: Upper-division standing.

### **HIS 343W. Witches, Workers, and Wives.**

Same as European Studies 346 (Topic 3: Witches, Workers, and Wives) and Women's and Gender Studies 345 (Topic 29: Witches, Workers, and Wives). Explores the role of families and concepts of gender as expressed in key economic, social, political, and cultural patterns in early modern Europe. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 344E. France in the Middle Ages.**

Social, cultural, political, and economic history of France from the fall of the Roman Empire to the fifteenth century; emphasis on the development of feudalism and nationalism. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 344F. Anglo-Saxon England.**

The political, social, cultural, and legal history of England from about 410 to 1154. Lectures and discussion of primary sources. Three lecture hours a week for one semester. History 344F and 362K (Topic: Anglo-Saxon England) may not both be counted. Prerequisite: Upper-division standing.

### **HIS 344G. Twelfth-Century Renaissance: 1050-1200.**

Same as Ancient History and Classical Civilization 330 (Topic 8), European Studies 346 (Topic 40), and Religious Studies 356F. An examination of social, cultural, and intellectual developments in eleventh- and twelfth-century Europe. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Twelfth-Cent Renais: 1050-1200), 330 (Topic: 12th-Century Renais: 1050-1200), 330 (Topic 8), European Studies 346 (Topic: 12th-Century Renais: 1050-1200), 346 (Topic 40), History 344G, Religious Studies 356F, 357 (Topic: 12th-Century Renais: 1050-1200). Prerequisite: Upper-division standing.

### **HIS 344J. Norman and Angevin England.**

Political, social, and legal history of England from the Norman conquest in 1066 to the end of the reign of Richard III in 1485. Three lecture hours

a week for one semester. History 344J and 362K (Topic: Norman and Angevin England) may not both be counted. Prerequisite: Upper-division standing.

### **HIS 344M. Everyday Life in Early Modern Europe.**

Social history of early modern Europe (1400-1700), with emphasis on material conditions of social existence. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 344R. Machiavelli: Politics and Culture.**

Same as Ancient History and Classical Civilization 330 (Topic 6), Core Texts and Ideas 330M, and Religious Studies 357C. Through Niccolò Machiavelli's chief writings, consider the local, regional, Mediterranean, European, and global aspects of his work. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Machiavelli), 330 (Topic 6), Core Texts and Ideas 330M, 375 (Topic: Machiavelli), European Studies 346 (Topic: Machiavelli), History 344R, 350L (Topic: Machiavelli), Liberal Arts Honors 350 (Topic: Machiavelli), 351P, Religious Studies 357 (Topic: Machiavelli), 357C. Prerequisite: Upper-division standing.

### **HIS 344S. The Crusades.**

Same as Ancient History and Classical Civilization 330 (Topic 5), European Studies 346 (Topic 38), and Religious Studies 375S (Topic 8). An exploration of the religious encounters between eastern and western Christians, Christian heretics, Jews, Muslims, and polytheists; political, military, and cultural changes of the high middle ages; and the ways that crusading ideas and symbols have been reused in contemporary politics and popular culture. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Crusades), 330 (Topic 5), European Studies 346 (Topic: The Crusades), 346 (Topic 38), History 344S, 350L (Topic: The Crusades), Religious Studies 375S (Topic: The Crusades), 375S (Topic 8). Prerequisite: Upper-division standing

### **HIS 345J. The Coming of the Civil War, 1829-1861.**

Lecture and discussion course dealing with the historical conditions that led to the American Civil War. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 345L. The American Civil War and Reconstruction, 1861-1877.**

Lecture and discussion course on the Civil War and Reconstruction period. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 345O. Debt and Colonialism in the Caribbean.**

Same as African and African Diaspora Studies 345O, American Studies 321O, and Latin American Studies 366 (Topic 43). Examine the role that debt has played in the formation of colonial and neocolonial practices in the Caribbean region. Take a broad approach to the concept of debt in order to explore the financial and monetary dynamics of debt, but also the political and cultural implications of debt. Focus in particular on debt as justification in the furtherance of colonialism throughout the Caribbean. Engage in a historical examination of the United States' colonial projects and military interventions in the region throughout the 20th and into the 21st centuries. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345O, 374E (Topic: Debt/Colonialism Caribbean), American Studies 321 (Topic: Debt/Colonialism Caribbean), 321O, History 345O, 363K (Topic: Debt/Colonialism Caribbean), Latin American Studies 366 (Topic: Debt/Colonialism Caribbean), 366 (Topic 43). Prerequisite: Upper-division standing.

**HIS 346C. Ancient India.**

Same as Asian Studies 346C. History and culture of South Asia from its protohistoric beginnings in the Indus Valley through the period of the early empires of the Mauryas and Guptas. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 346D. Medieval India.**

Same as Asian Studies 346D. History and culture of South Asia from approximately 500 to 1500, with emphasis on religious and political institutions and the emergence of regional cultures. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 346G. Precolonial India, 1200-1750.**

Same as Asian Studies 372G. Surveys the history of South Asia during the era prior to British colonial rule. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic: Precolonial India, 1200-1750), 372G, History 346G, 364G (Topic: Precolonial India, 1200-1750). Prerequisite: Upper-division standing.

**HIS 346J. Colonial Latin America through Objects.**

Same as Latin American Studies 366 (Topic 20). Examines objects, such as paintings, reliquaries, monstrosities, and churches from colonial Latin America in order to understand colonial culture. Includes critical reading of original texts. Three lecture hours a week for one semester. Only one of the following may be counted: History 346J, 363K (Topic: Colonial Latin America through Objects), Latin American Studies 366 (Topic 20). Prerequisite: Upper-division standing.

**HIS 346K. Colonial Latin America.**

Same as Latin American Studies 366 (Topic 2: Colonial Latin America). Basic survey course, designed as an introduction to Latin American history in the colonial period. Three lecture hours a week for one semester. Only one of the following may be counted: History 310K, 346K, Latin American Studies 310 (Topic 1: Latin American Civilization: The Colonial Experience), 366 (Topic 2). Prerequisite: Upper-division standing.

**HIS 346L. Modern Latin America.**

Same as Latin American Studies 366 (Topic 3). Continuation of History 346K and Latin American Studies 366 (Topic 2). Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: Modern Latin America), 374E (Topic 5), History 310L, 346L, Latin American Studies 310 (Topic 2: Latin American Civilization: The National Experience), 366 (Topic 3). Prerequisite: Upper-division standing.

**HIS 346M. Early Modern India.**

Same as Asian Studies 346M. The history and culture of South Asia from approximately 1500 to 1750. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 346M, History 346M, Religious Studies 341 (Topic 6). Prerequisite: Upper-division standing.

**HIS 346N. The Indian Subcontinent, 1750-1950.**

Same as Asian Studies 346N. Examines the cultural and political movements and events that led to formation of the two nation-states India and Pakistan. Three lecture hours a week for one semester. Asian Studies 346N and History 346N may not both be counted. Prerequisite: Upper-division standing.

**HIS 346P. The Indian Republic Since 1947.**

Same as Asian Studies 361K. An overview of Contemporary India, a republic that emerged from the British Empire. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Indian Republic 1947-Pres), 361K, History 346P. Prerequisite: Upper-division standing.

**HIS 346R. Revolution in Modern Latin America.**

Same as Latin American Studies 366 (Topic 13: Revolution in Modern Latin America). Comparison of the Mexican and Cuban revolutions and of their challenges to inter-American relations. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 346S. Revolution in Twentieth-Century Latin America.**

Same as Latin American Studies 366 (Topic 9: Revolution in Twentieth-Century Latin America). An introduction to recent Latin American history, with emphasis on phenomena that explain the apparent social unrest and political instability of the region. Three lecture hours a week for one semester. Only one of the following may be counted: History 346L, 366N (Topic: Revolution in Twentieth-Century Latin America), Latin American Studies 366 (Topic 9). Prerequisite: Upper-division standing.

**HIS 346T. The Cuban Revolution and the United States.**

Same as Latin American Studies 366 (Topic 17: The Cuban Revolution and the United States). The special economic and political relationship between the United States and Cuba from 1898 to 1967; and how the 1959 revolution affected the Cold War relationships between East and West, North and South. Three lecture hours a week for one semester. Only one of the following may be counted: History 346T, 366N (Topic: The Cuban Revolution and the US), Latin American Studies 366 (Topic: The Cuban Revolution and the US), 366 (Topic 17). Prerequisite: Upper-division standing.

**HIS 346V. Twentieth-Century Rural Latin America.**

Same as Latin American Studies 366 (Topic 19: Twentieth-Century Rural Latin America). Examines causes of some of the unresolved conflicts affecting Latin America today, including the social-agrarian relationships linking landlords and campesinos; the role of the state and the impact of official ideologies involving indigenous people; religion and the Catholic Church; the history of rural institutions; and the success or failure of land reforms. Three lecture hours a week for one semester. Only one of the following may be counted: History 346V, 363K (Topic: Twentieth-Century Rural Latin America), Latin American Studies 366 (Topic 19). Prerequisite: Upper-division standing.

**HIS 346W. Church and State in Latin America.**

Same as Latin American Studies 366 (Topic 21) and Religious Studies 368D. History of Church-state relations and religious politics in modern Latin America, with emphasis on the nineteenth to early twentieth-century periods. Three lecture hours a week for one semester. Only one of the following may be counted: History 346W, Latin American Studies 366 (Topic 21), Religious Studies 368 (Topic 1), 368D. Prerequisite: Upper-division standing.

**HIS 347C. Reimagining Cuba, 1868-Present.**

Same as African and African Diaspora Studies 345M and Latin American Studies 366 (Topic 22). Explores Cuban-United States relations from the nineteenth century to the present, including issues of empire and transnationalism, and social change engagements between Cuba and the United States before and after the Cuban Revolution. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345M, 374E (Topic 4), History 347C, Latin American Studies 366 (Topic 22). Prerequisite: Upper-division standing.

**HIS 347J. Puerto Rico In Crisis.**

Same as African and African Diaspora Studies 350K, American Studies 370 (Topic 56), and Mexican American Studies 364P. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350K, 374E (Topic: Puerto Rico In Crisis), American Studies 370 (Topic: Puerto Rico In Crisis), 370 (Topic 56), History 347J, 363K (Topic: Puerto Rico In Crisis), Mexican American

Studies 364P, 374 (Topic: Puerto Rico In Crisis). Prerequisite: Upper-division standing.

### **HIS 347L. Seminar in Historiography.**

Restricted to students in the History Honors Program. Designed to familiarize students in the honors program with general problems of historiography, historical interpretation, and the philosophy of history. Three lecture hours a week for one semester. Prerequisite: Consent of instructor.

### **HIS 347N. Urban Slavery in the Americas.**

Same as African and African Diaspora Studies 350P, American Studies 370 (Topic 55), and Latin American Studies 366 (Topic 36). Examines urban slavery in the Americas. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350P, 374E (Topic: Urban Slavery in the Americas), American Studies 370 (Topic: Urban Slavery in the Americas), 370 (Topic 55), History 347N, 350L (Topic: Urban Slavery in the Americas), Latin American Studies 366 (Topic: Urban Slavery in the Americas), 366 (Topic 36). Prerequisite: Upper-division standing.

### **HIS 347P. When Christ was King.**

Same as Latin American Studies 366 (Topic 35) and Religious Studies 368C. The history of Catholicism in twentieth-century Mexico, often seen as Latin America's most "Catholic" nation. Three lecture hours a week for one semester. Only one of the following may be counted: History 347P, 350L (Topic: When Christ was King), Latin American Studies 366 (Topic: When Christ was King), 366 (Topic 35), Religious Studies 368 (Topic: When Christ was King), 368C. Prerequisite: Upper-division standing.

### **HIS 347R. Chile: From Revolution to Counterrevolution.**

Same as Latin American Studies 366 (Topic 37). An examination of the key political, social, and economic events that underpin contemporary Chilean society. Three lecture hours a week for one semester. Only one of the following may be counted: History 347R, 350L (Topic: Chile: Revultn to Cnterrevlutn), Latin American Studies 366 (Topic: Chile: Revultn to Cnterrevlutn), 366 (Topic 37). Prerequisite: Upper-division standing.

### **HIS 349R. Military History to 1640.**

A broad survey of world military systems from ancient times to about 1640. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 349S. Survey of Military History, 1640 to 1900.**

An investigation of world military systems and of the evolution of military technology from about the time of the Thirty Years' War to the end of the nineteenth century. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 350L. Undergraduate Seminar in History.**

Lectures, discussion, reading, and research on selected topics in the field of history. Three lecture hours a week for one semester. History 350L and 350R may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 5: Gandhi and Gandhism.** Same as Asian Studies 361 (Topic 6) and Religious Studies 341C. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 6), History 350L (Topic 5), Religious Studies 341 (Topic 5), 341C. Additional prerequisite: Upper-division standing.

**Topic 19: Resistance, Rebellion, and Revolution in Colonial Spanish America.** Same as Latin American Studies 366 (Topic 7: Resistance, Rebellion, and Revolution in Colonial Spanish America). Only one of the following may be counted: History 350L (Topic 19), Latin American

Studies 366 (Topic: Resistance, Rebellion, and Revolution in Colonial Spanish America), 366 (Topic 7).

**Topic 32: The Galileo Affair.** Same as Religious Studies 356G. Examine the life and work of Galileo Galilei (1564-1642), particularly his conflict with Church authorities and his condemnation in 1633. Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic 32), Religious Studies 356G, 357 (Topic: The Galileo Affair). Additional prerequisite: Upper-division standing.

**Topic 33: Heresy and the Inquisition.** Same as Religious Studies 357D. Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic 33), Religious Studies 357 (Topic 1), 357D. Additional prerequisite: Upper-division standing.

**Topic 34: Medieval Islam: Faith and History.** Same as Middle Eastern Studies 343 (Topic 5) and Religious Studies 358E. Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic 34), Middle Eastern Studies 343 (Topic 5), Religious Studies 358 (Topic 2), 358E. Additional prerequisite: Upper-division standing.

**Topic 35: Nigeria: A History of Nation-Building.** African and African Diaspora Studies 372G (Topic 2) and History 350L (Topic 35) may not both be counted.

**Topic 41: Stalinist Russia.** Same as Russian, East European, and Eurasian Studies 335 (Topic 12). History 350L (Topic 41) and Russian, East European, and Eurasian Studies 335 (Topic 12) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 42: History of Modern Central America.** Same as Latin American Studies 366 (Topic 15: History of Modern Central America). Only one of the following may be counted: History 350L (Topic 42), 363K (Topic: History of Modern Central America), Latin American Studies 366 (Topic 15).

**Topic 44: Culture and Identity in Colonial Mexico.** Same as Latin American Studies 366 (Topic 16: Culture and Identity in Colonial Mexico).

**Topic 46: Women and Gender in China.** Same as Asian Studies 372J and Women's and Gender Studies 340 (Topic 18). Examine women and gender in China from imperial times to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 21), 372J, History 350L (Topic 46), Women's and Gender Studies 340 (Topic 18). Additional prerequisite: Upper-division standing.

**Topic 49: History of Imperialism.**

**Topic 50: Imperialism: Empire to Globalization.**

**Topic 54: Epics and Heroes of India.** Same as Ancient History and Classical Civilization 330 (Topic 2), Asian Studies 373G, and Core Texts and Ideas 344. Focus on India's classical epics, the Mahabharata and the Ramayana, with emphasis placed on understanding the epic characters in relation to the heroic traditions of premodern India, as well as on the role of the epics in contemporary Indian political and religious culture. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic 2), Asian Studies 372 (Topic 40), 373G, Core Texts and Ideas 345 (Topic 11), 344, History 350L (Topic 54). Additional prerequisite: Upper-division standing.

**Topic 56: Germany since Hitler.** Same as Jewish Studies 364 (Topic 12). Analyze the effects of Hitler's dictatorship upon German society, politics, economy and culture. Only one of the following may be counted: Jewish Studies 364 (Topic: Germany Since Hitler), 364 (Topic 12), History 350L (Topic 56). Additional prerequisite: Upper-division standing.

**Topic 57: Law and Society in Early Modern Europe.** Same as European Studies 346 (Topic 4: Law and Society in Early Modern Europe) and Women's and Gender Studies 340 (Topic 13: Law and Society in Early Modern Europe). Research seminar on how historians have explored the significance of law, criminal and civil, in the lives of early modern Europeans. Topics include infanticide, fornication, drunkenness, theft,

debt, slander, and family disputes. Only one of the following may be counted: European Studies 346 (Topic 4), History 350L (Topic 57), Women's and Gender Studies 340 (Topic 13).

**Topic 59: Stalin's Russia at War.** Only one of the following may be counted: History 350L (Topic 59), 362G (Topic: Stalin's Russia at War), 366N (Topic: Stalin's Russia at War).

**Topic 62: History of the Caribbean.** Same as Latin American Studies 366 (Topic 18: History of the Caribbean). Overview of Caribbean history from 1492 to the present. Topics include contact between European and native cultures, piracy, slavery, colonialism and decolonization, and revolutions.

**Topic 63: Electrification.** An examination of how electrical technologies have changed the workings of the world and the lives of ordinary people over the past 175 years. History 350L (Topic: Electrification) and 350L (Topic 63) may not both be counted.

**Topic 64: Einstein in the Age of Conflict.** Same as Core Texts and Ideas 371. Following the life and work of Albert Einstein, course examines the rise of the theories of relativity and quantum mechanics upon the stage of international political upheaval. Only one of the following may be counted: Core Texts and Ideas 370 (Topic: Einstein in the Age of Conflicts), History 350L (Topic: Einstein in the Age of Conflicts), 350L (Topic: 64).

**Topic 65: The Chinese in Diaspora.** Same as Asian American Studies 325C and Asian Studies 361 (Topic 28). Explores narratives of migration, race, ethnicity, and a wide range of experiences of acculturation and assimilation from the perspective of a sending society—China—which has one of the longest and most diverse histories of sending people overseas. Over the last millennia, Chinese have migrated around the world and made homes under a great range of adversity and opportunity, producing many stories of human differences and commonalities. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic 2), 325C, Asian Studies 361 (Topic 28), History 350L (Topic 65). Additional prerequisite: Upper-division standing.

**Topic 66: Dictatorship, Dirty War, and Democracy in Latin America.** Same as Latin American Studies 366 (Topic 23). Only one of the following may be counted: History 350L (Topic: Dictator/Dirty War in Latin America), 350L (Topic 66), Latin American Studies 366 (Topic: Dictator/Dirty War in Latin America), 366 (Topic 23).

**Topic 67: Mughal India in History and Memory.** Same as Asian Studies 361 (Topic 33) and Islamic Studies 372 (Topic 20). Focuses on South Asia during the era of the Mughal empire (1550-1750), continuing through the symbolic relevance of the Mughal dynasty in British India and in India today. Only one of the following may be counted: Asian Studies 361 (Topic: Mughal India in History and Memory), 361 (Topic 33), History 350L (Topic: Mughal India in History and Memory), 350L (Topic 67), Islamic Studies 372 (Topic: Mughal India in History and Memory), 372 (Topic 20).

**Topic 68: Afro-Latin America.** Same as African and African Diaspora Studies 345E and Latin American Studies 366 (Topic 31). Examines the historical experiences of people of African descent in Latin America and the Caribbean beginning in the slavery era, and focuses on the histories of Afro-Latin Americans after emancipation. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345E, 372G (Topic 10), History 350L (Topic 68), Latin American Studies 366 (Topic 31). Additional prerequisite: Upper-division standing.

**Topic 69: The Decolonization of the British Empire.** Explores the era of decolonization of the British empire after World War II. Only one of the following may be counted: History 350L (Topic: Decolonization of British Empire), 350L (Topic 69), Liberal Arts Honors 350 (Topic: Decolonization of British Empire), 350 (Topic 8).

**Topic 70: Historical Imagining of Africa in Films.** Same as African and African Diaspora Studies 340L and Women's and Gender Studies 340 (Topic 40). Three lecture hours a week for one semester. Only

one of the following may be counted: African and African Diaspora Studies 340L, 374F (Topic 18), History 350L (Topic 70), Women's and Gender Studies 340 (Topic 40). Additional prerequisite: Upper-division standing.

**Topic 71: Liberalism and the British Empire.** Explores the emergence of the political and economic ideas of liberalism in Britain and the evolution of British overseas expansion during the seventeenth-, eighteenth-, and early nineteenth- centuries. History 350L (Topic: Liberalism and the British Empire) and 350L (Topic 71) may not both be counted.

**Topic 72: History of Southern Africa.** Same as African and African Diaspora Studies 3400 and Women's and Gender Studies 340 (Topic 39). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 3400, 374C (Topic 4), History 350L (Topic 72), Women's and Gender Studies 340 (Topic 39). Additional prerequisite: Upper-division standing.

**Topic 73: Race, Science, and Racism.** Explores important episodes in the history of biology regarding the classification of human races. History 350L (Topic: Race, Science, and Racism) and 350L (Topic 73) may not both be counted.

**Topic 74: Mystics, Visionaries, and Heretics in Medieval Europe.** Same as Ancient History and Classical Civilization 330 (Topic 3) and Religious Studies 375S (Topic 3). Examines particular mystical and visionary experiences within the context of medieval European Christianity. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 330 (Topic 3), History 350L (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 350L (Topic 74), Religious Studies 375S (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 375S (Topic 3).

**Topic 75: Rethinking the Conquest of Mexico.** Same as Latin American Studies 366 (Topic 24). Explores the "conquest" of Mexico and the social, cultural, political, and economic processes which were set in motion by the Spanish invasion of Mexico. Only one of the following may be counted: History 350L (Topic: Rethinking Conquest of Mexico), 350L (Topic 75), Latin American Studies 366 (Topic: Rethinking Conquest of Mexico), 366 (Topic 24), Tutorial Course 357 (Topic: Rethinking Conquest of Mexico).

**Topic 76: The Religious Tradition in Latin America.** Same as Latin American Studies 366 (Topic 25) and Religious Studies 368E. Explores the different ways in which religion has helped to define the political, social, and philosophical structures of Latin America from colonial times to the present. Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic 76), Latin American Studies 366 (Topic 25), Religious Studies 368 (Topic 3), 368E. Additional prerequisite: Upper-division standing.

**Topic 77: The Spanish Inquisition.** Same as European Studies 346 (Topic 11), Jewish Studies 364 (Topic 5), and Religious Studies 357L. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 11), History 350L (Topic 77), Jewish Studies 364 (Topic 5), Religious Studies 357 (Topic 10), 357L. Additional prerequisite: Upper-division standing.

**Topic 78: Visual and Material Culture in Colonial Latin America.** Same as Latin American Studies 366 (Topic 26). Focuses on the visual and material culture of colonial Spanish America. Only one of the following may be counted: History 350L (Topic: Visual and Material Culture in Colonial Latin America), 350L (Topic 78), Latin American Studies 366 (Topic: Visual and Material Culture in Colonial Latin America), 366 (Topic 26).

**Topic 79: World War II in Eastern Europe.** Same as European Studies 346 (Topic 12), Jewish Studies 364 (Topic 11), and Russian, East European, and Eurasian Studies 335 (Topic 19). Examines the war in Eastern Europe with a particular emphasis on occupation, collaboration, and resistance; the Holocaust; and the connection between ethnic cleansing, population transfer, and the establishment

of communism in postwar Eastern Europe. Only one of the following may be counted: European Studies 346 (Topic: World War II in Eastern Europe), 346 (Topic 12), History 350L (Topic: World War II in Eastern Europe), History 350L (Topic 79), Jewish Studies 364 (Topic: World War II in Eastern Europe), 364 (Topic 11), Russian, East European, and Eurasian Studies 335 (Topic: World War II in Eastern Europe), 335 (Topic 19).

**Topic 80: Creation.** Same as European Studies 346 (Topic 13) and Religious Studies 373F. Explores the writings of premodern authors as related to creation and early developments in western theology, science, and philosophy. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 13), History 350L (Topic 80), Religious Studies 373 (Topic 5), 373F. Additional prerequisite: Upper-division standing.

**Topic 81: Enlightenment and Revolution.** Same as Core Texts and Ideas 375 (Topic 3) and European Studies 346 (Topic 14). Examines the relationship between the intellectual project of the Enlightenment and the political and social transformations that unfolded in western Europe and North America from the beginnings of the Dutch Revolt in the 1560s to the decade following the Paris Commune of 1871. Only one of the following may be counted: Core Texts and Ideas 375 (Topic: Enlightenment and Revolution), 375 (Topic 3), European Studies 346 (Topic: Enlightenment and Revolution), 346 (Topic 14), History 350L (Topic: Enlightenment and Revolution), 350L (Topic 81). Additional prerequisite: Upper-division standing.

**Topic 82: Indian Ocean Travel and Trade, 1000-1700.** Examines long-distance travel and trade in the Indian Ocean region from approximately 1000 to 1700 AD. Only one of the following may be counted: Asian Studies 361 (Topic: Indian Ocean Travel and Trade, 1000-1700), History 350L (Topic: Indian Ocean Travel and Trade, 1000-1700), 350L (Topic 82).

**Topic 83: Writing Violence in History.** Examines how historians have approached episodes of violence and will also look outside of the discipline of history to see how psychoanalysts, anthropologists, novelists, and activists have both understood violence and how they represent it in their work. History 350L (Topic: Writing Violence in History) and 350L (Topic 83) may not both be counted.

**Topic 84: African Travel Narratives.** Same as African and African Diaspora Studies 340J. Examines histories of Africa and travel through eyewitness accounts. Studies journeys Africans have made within and from the continent alongside accounts of travelers visiting Africa from elsewhere. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340J, 372G (Topic: African Travel Narratives), 372G (Topic 9), History 350L (Topic: African Travel Narratives), 350L (Topic 84). Additional prerequisite: Upper-division standing.

**Topic 85: The Cold War in Five Continents.** Examination of the Cold War and the ensuing conflicts around the world (1945-1990). History 350L (Topic: The Cold War in Five Continents) and 350L (Topic 85) may not both be counted.

**Topic 86: Latin America in the Nineteenth Century.** Same as Latin American Studies 366 (Topic 32). Questions the geographical category of Latin America by examining the kinds of trends and forces of the nineteenth century that contributed to its conceptual emergence and to its growing political, economic, and cultural significance on the global stage. Only one of the following may be counted: History 350L (Topic: Latin America in the Nineteenth Century), 350L (Topic 86), Latin American Studies 366 (Topic: Latin America in the Nineteenth Century), 366 (Topic 32).

**Topic 87: Global Environmental History.** Explore how human societies and natural environments have shaped each other in world history. History 350L (Topic: Global Environmental History) and 350L (Topic 87) may not both be counted.

**Topic 88: Medicine in African History.** Same as African and African Diaspora Studies 340K. An exploration of how communities have

confronted disease throughout Africa's history. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340K, 372D (Topic: Medicine in African History), 372D (Topic 3), History 350L (Topic: Medicine in African History), 350L (Topic 88). Additional prerequisite: Upper-division standing.

**Topic 89: Poland and the Second World War.** Examines the occupation of Poland by Germany and the Soviet Union and the ways in which this dual occupation impacted people and their communities. History 350L (Topic: Poland and the Second World War) and 350L (Topic 89) may not both be counted.

**Topic 90: Research on the Global Cold War.** Engage in original research in international relations during the turbulent era of the Cold War. Focus on one country in Latin America, Africa, Europe, the Middle East, or Asia in order to study the relationship between it and the United States during the administration of President Lyndon Baines Johnson. History 350L (Topic: Research on the Global Cold War) and 350L (Topic 90) may not both be counted.

**Topic 91: History of Money and Corruption.** Investigate how financial crises have arisen in the past and to what extent they transpired because of wrongdoing. History 350L (Topic: Hist of Money/Corruption) and 350L (Topic 91) may not both be counted.

**Topic 92: Uprising in India-1857.** Same as Asian Studies 361 (Topic 41). Introduces the problems faced with the uprising of 1857 in India, the most violent and widespread attempt ever made to destroy the British empire in South Asia. Only one of the following may be counted: Asian Studies 361 (Topic: Uprising in India-1857), 361 (Topic 41), History 350L (Topic: Uprising in India-1857), 350L (Topic 92).

**Topic 93: Russian and Soviet Film: Uses of History.** Same as Russian, East European, and Eurasian Studies 335 (Topic 28). Explore twentieth-century Russian history through its representation in film. Only one of the following may be counted: History 350L (Topic: Rus/Soviet Film: Uses of Hist), 350L (Topic 93), Russian, East European, and Eurasian Studies 335 (Topic: Rus/Soviet Film: Uses of Hist), 335 (Topic 28). Additional prerequisite: Upper-division standing.

**Topic 94: Women and Wealth in South Asia.** Same as Asian Studies 372Q and Women's and Gender Studies 340 (Topic 68). Addresses the questions surrounding poverty of South Asian women by combining legal, political and social histories of the subcontinent over four centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic: Women and Wealth in South Asia), 372 (Topic 47), 372Q, History 350L (Topic: Women and Wealth in South Asia), 350L (Topic 94), Women's and Gender Studies 340 (Topic: Women and Wealth in South Asia), 340 (Topic 68). Additional prerequisite: Upper-division standing.

**Topic 95: Radical Hope and Global Environmental History.** Explore the meaning of "radical hope" and how it is related to the environment, climate change, or the Anthropocene. History 350L (Topic: Radical Hope and Global Enviro) and 350L (Topic 95) may not both be counted.

**Topic 96: Africa and Indian Ocean World.** Same as African and African Diaspora Studies 352L and Asian Studies 361P. Explore the connected histories of the geographical regions and economic communities that share the littoral space of the Indian Ocean. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352L, 374C (Topic: Africa/Indian Ocean World), Asian Studies 361 (Topic: Africa/Indian Ocean World), 361P, History 350L (Topic: Africa/Indian Ocean World), 350L (Topic 96). Additional prerequisite: Upper-division standing.

**Topic 97: Global Commodities: Asia and the World.** Same as Asian Studies 361L. Explore the vital role of commodities in Asian history with a particular focus on East and Southeast Asia. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Global Commodities: Asia and

T), 361L, History 350L (Topic: Global Commodities: Asia and T), 350L (Topic 97). Additional prerequisite: Upper-division standing.

**Topic 98: The Partition of India in History and Literature.** Same as Asian Studies 379 (Topic 15). Examine the causes and effects of the partition of British India in 1947 into the nation-states of India and Pakistan. Only one of the following may be counted: Asian Studies 361 (Topic: Partition of India Hist/Lit), 379 (Topic 15), History 350L (Topic: Partition of India Hist/Lit), 350L (Topic 98), Islamic Studies 372 (Topic: Partition of India Hist/Lit). Additional prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

### **HIS 350R. Undergraduate Seminar in United States History.**

Lectures, discussion, reading, and research on selected topics in the field of United States history. Three lecture hours a week for one semester. History 350L and 350R may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 1: Coastal Communities in Early America.** Same as American Studies 370 (Topic 62). Only one of the following may be counted: American Studies 370 (Topic: Coastal Comm in Early Amer), 370 (Topic 62), History 350R (Topic 1). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 2: Lyndon Johnson and His Times.**

**Topic 3: Myth and Construction of American Identity.**

**Topic 4: Constitutional Issues in the Twentieth-Century United States.**

**Topic 5: American Cultural History of Alcohol and Drugs.** Same as American Studies 370 (Topic 1). Study of the American use and perception of drugs, including alcohol, and how they have changed over time. Examines significant shifts in American attitudes toward individualism and social control. American Studies 370 (Topic 1) and History 350R (Topic 5) may not both be counted.

**Topic 6: Deviance in America: An Alternative History.** Same as American Studies 370 (Topic 22). Examines movements and individuals outside the conventional mainstream and how they reflect American ideals and dilemmas. American Studies 370 (Topic 22) and History 350R (Topic 6) may not both be counted.

**Topic 7: Environmental History of North America.** Same as American Studies 329 and Urban Studies 328E. The history of humanity's influence on the plants, animals, microlife, soils, water, and air of North America, and vice versa, from the arrival of the proto-Indians to the contemporary environmental crisis. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 329, History 350R (Topic 7), Urban Studies 328E, 353 (Topic 5). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 8: Women in Postwar America.** Same as American Studies 370 (Topic 30) and Women's and Gender Studies 345 (Topic 37). Only one of the following may be counted: American Studies 370 (Topic 30), History 350R (Topic 8), Women's and Gender Studies 345 (Topic 37).

**Topic 9: Animals and American Culture.** Same as American Studies 370 (Topic 28) and Women's and Gender Studies 345 (Topic 43). Explores the role of animals in American history, culture, and society. Only one of the following may be counted: American Studies 370 (Topic 28), History 350R (Topic 9), Women's and Gender Studies 345 (Topic 43).

**Topic 10: Slavery in the United States.** African and African Diaspora Studies 374D (Topic 3) and History 350R (Topic 10) may not both be counted.

**Topic 11: Race and Beauty in American Culture.** African and African Diaspora Studies 372C (Topic 2) and History 350R (Topic 11) may not both be counted.

**Topic 12: History of Black Entrepreneurship in the United States.** Same as African and African Diaspora Studies 351E and American

Studies 370 (Topic 58). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351E, 374D (Topic 2), American Studies 370 (Topic: Hist of Black Entrepren in US), 370 (Topic 58), History 350R (Topic 12). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 13: History of Sexuality in America.** Same as Women's and Gender Studies 345 (Topic 38). History 350R (Topic 13) and Women's and Gender Studies 345 (Topic 38) may not both be counted. Additional prerequisite: Six semester hours of coursework in history.

**Topic 14: Gender and Slavery in the United States.** Same as African and African Diaspora Studies 350V and Women's and Gender Studies 345 (Topic 31). Examines the gendered experience of chattel slavery in the United States. Includes critical analysis of classic and contemporary texts, films, and songs that focus on slave labor, family, community, sexuality, and the economy. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350V, 372C (Topic 4), History 350R (Topic 14), Women's and Gender Studies 345 (Topic 31). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 16: Innovation in the United States Economy.** Examines creativity in the United States' economy, primarily since 1865. Includes major innovations associated with the evolution of the economy, such as the development of branding and the coming of the computer industry.

**Topic 17: Black Women in America.** Same as African and African Diaspora Studies 351G and Women's and Gender Studies 340 (Topic 9). Uses primary sources, historical monographs, and essays to provide a chronological and thematic overview of the experiences of black women in America from their African roots to the circumstances they face in the present era. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351G, 374D (Topic 9), History 350R (Topic 17), Women's and Gender Studies 340 (Topic 9). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 18: Women in Sickness and Health.** Same as Women's and Gender Studies 345 (Topic 3). Explores medical and biological views throughout the nineteenth and twentieth centuries of women and women's health, the social context of those views, the development of medical practices, and the treatment of illness and debility. Only one of the following may be counted: History 350L (Topic: Women in Sickness and Health), 350R (Topic 18), Women's and Gender Studies 345 (Topic 3). Additional prerequisite: Six semester hours of coursework in history.

**Topic 19: American Popular Culture, 1682-Present.** Same as American Studies 370 (Topic 35) and Women's and Gender Studies 340 (Topic 26). Explores the evolution of American popular culture and its relationship to national consolidation, and at times, disunion, over the last 330 years.

**Topic 20: History of American Feminism.** Same as Women's and Gender Studies 345 (Topic 49). Only one of the following may be counted: History 350R (Topic: History of American Feminism), 350R (Topic 20), Women's and Gender Studies 345 (Topic: History of American Feminism), 345 (Topic 49).

**Topic 21: Pluralism in Early America.** Only one of the following may be counted: History 350L (Topic: Pluralism in Early America), 350R (Topic: Pluralism in Early America), 350R (Topic 21).

**Topic 22: The History of Islam in the United States.** Same as American Studies 370 (Topic 61), Islamic Studies 372 (Topic 21), and Religious Studies 346U. A brief introduction to Islam. Defines the role of Islam and views of Muslims in the early history of the United States, and introduces students to major issues concerning contemporary American Muslims. Three lecture hours a week for one semester.

Only one of the following may be counted: American Studies 370 (Topic: History of Islam in the US), 370 (Topic 61), History 350R (Topic 22), Islamic Studies 372 (Topic 21), Religious Studies 346 (Topic 10), 346U. Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 23: Twentieth-Century Native American History.** Studies Native American life and culture from the late nineteenth- to the twentieth-century through the use of historical and anthropological texts, autobiographies, documentaries, and fiction. Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic: Twentieth-Century Native American History), 350R (Topic: Twentieth-Century Native American History), 350R (Topic 23).

**Topic 24: Domestic Slave Trade.** Same as African and African Diaspora Studies 350T. Explores the inner workings of the domestic slave trade from the perspectives of slaveholders, speculators, and the enslaved. Analysis of maps, letters, diaries, newspaper advertisements, and legislation relating to the domestic slave trade. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350T, 374D (Topic 20), History 350R (Topic 24). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 25: Race and Citizenship in United States History.** Same as American Studies 370 (Topic 48) and Mexican American Studies 374 (Topic 35). Uses primary and secondary sources to analyze how race and citizenship have functioned for populations of color in the United States. Only one of the following may be counted: American Studies 370 (Topic: Race and Citizenship in United States History), 370 (Topic 48), History 350R (Topic: Race and Citizenship in United States History), 350R (Topic 25), Mexican American Studies 374 (Topic: Race and Citizenship in United States History), 374 (Topic 35).

**Topic 26: United States Media, Culture, and Commerce.** Examines the history of the United States media as both a successful corporate product and as an important tool for the formation of personal and community identity. Only one of the following may be counted: History 350L (Topic: United States Media, Culture, and Commerce), 350R (Topic: United States Media, Culture, and Commerce), 350R (Topic 26).

**Topic 27: Arts and Artifacts in the Americas.** Same as American Studies 370 (Topic 59). Surveys the changing material culture of the western hemisphere from pre-Columbian times to the beginning of the industrial revolution. Only one of the following may be counted: American Studies 370 (Topic: Arts/Artifacts in the Americas), 370 (Topic 59), History 350R (Topic: Arts/Artifacts in the Americas), 350R (Topic 27). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 28: Debating the American Revolution.** Examination of the precipitant events and ideas leading up to the American Declaration of Independence through discussions, lectures, and an extended exercise in historical role playing. History 350R (Topic: Debating the American Revolution) and 350R (Topic 28) may not both be counted.

**Topic 29: Globalization, Transnationalism, and Internationalism.** Addresses the complex role of the United States in the greater scope of international relations in politics, with an emphasis on how political events in the United States reach the African continent in a variety of ways. Only one of the following may be counted: African and African Diaspora Studies 374C (Topic 3), History 350R (Topic 29). Additional prerequisite: Upper-division standing.

**Topic 30: History of Teaching American History.** Examination and evaluation of the role of the historian and teacher of history today and the changing ideas of how American history has been taught. Only one of the following may be counted: History 350L (Topic: History of Teaching American History), 350R (Topic: History of Teaching American History), 350R (Topic 30).

**Topic 31: Irrationality in United States Economic History.** Explores new research from psychology, economics, history, and law that

finds human beings have acted irrationally in numerous situations. Students will sample historical research from subjects such as marketing, discrimination, labor policies, and public policy. History 350R (Topic: Irrationality in United States Economic History) and 350R (Topic 31) may not both be counted.

**Topic 32: America at War.** Investigation of major American wars from the Revolutionary War to the wars in Iraq and Afghanistan. Only one of the following may be counted: History 350L (Topic: America at War), 350R (Topic: America at War), 350R (Topic 32).

**Topic 33: Consuming America.** Explores the history of the relationship between the American consumer and the nation's social history. Only one of the following may be counted: History 350L (Topic: Consuming America), 350R (Topic: Consuming America), 350R (Topic 33).

**Topic 35: The Civil Rights Movement from a Comparative Perspective.** Same as African and African Diaspora Studies 350U, American Studies 370 (Topic 60), and Mexican American Studies 364C. Focuses on African American and Mexican American struggles for civil rights. Asian American and Native American movements will also be addressed. Using a comparative approach the student will consider the distinctiveness of each of these struggles while also viewing them in relation to each other. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350U, 374D (Topic: Civil Rts Mov from Comp Persp), 374D (Topic 18), American Studies 370 (Topic: Civil Rts Mov from Comp Persp), 370 (Topic 60), History 350R (Topic 35), Mexican American Studies 364C, 374 (Topic: Civil Rts Mov from Comp Persp). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 36: Mexican Americans in Texas History.** Introduction to the historical experience of Mexican-American persons in Texas. Three lecture hours a week for one semester. Only one of the following may be counted: History 350R (Topic: Mexican Americans in Texas History), 350R (Topic 36), Mexican American Studies 374 (Topic: Mexican Americans in Texas History). Additional prerequisite: Upper-division standing.

**Topic 37: Refugees in Twentieth-Century United States.** Same as Asian American Studies 325K. Explores the history of refugees in the twentieth century, with special attention to the United States and its engagement in the international arena of refugee politics. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: Refugees in 20th-Century US), 325 (Topic 10), 325K, History 350R (Topic: Refugees in 20th-Century US), 350R (Topic 37). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 38: Barack Obama and American Democracy.** Same as African and African Diaspora Studies 350N. Focuses on the impact of Barack Obama's watershed presidency on American democracy. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350N, 372F (Topic: Obama/American Democracy), History 350R (Topic: Obama/American Democracy), 350R (Topic 38). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 39: Alexander Hamilton and Thomas Jefferson in Context.** Examination of the public and private lives of Thomas Jefferson and Alexander Hamilton, their roles in the American Revolution, and the rivalry during Washington's presidency, until Jefferson's election as the third President and Hamilton's death in a duel in 1804. Only one of the following may be counted: History 350R (Topic: Thomas Jefferson and His World), 350R (Topic 15), 350R (Topic 39).

**Topic 40: Black Women on Trial.** Same as African and African Diaspora Studies 350F and Women's and Gender Studies 340 (Topic 69). Using press coverage of historical and contemporary court cases and trials of women ranging from Angela Davis to Marissa Alexander, explores how media shapes public and popular perceptions of race, class, gender, sexuality, and the law. Three lecture hours a week for

one semester. Only one of the following may be counted: African and African Diaspora Studies 350F, 374D (Topic: Black Women on Trial), History 350R (Topic: Black Women on Trial), 350R (Topic 40), Women's and Gender Studies 340 (Topic: Black Women on Trial), 340 (Topic 69). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 41: Women, Gender, and Black Power.** Same as African and African Diaspora Studies 350G and Women's and Gender Studies 340 (Topic 70). Examines the Black Power Movement through the experiences of African American women activists as well as gender and sexuality constructs that prevailed during the second half of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350G, 374D (Topic: Women, Gender, and Black Power), History 350R (Topic: Women, Gender, and Black Power), 350R (Topic 41), Women's and Gender Studies 340 (Topic: Women, Gender, and Black Power), 340 (Topic 70). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 42: Terrorism and Insurgency in American History.** Investigate terrorism throughout American history through selective case studies and independent research. History 350R (Topic: Terrorism/Insurgency: Amer Hist) and 350R (Topic 42) may not both be counted. Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

#### **HIS 351D. Alexander the Great and the Hellenistic World.**

Same as Ancient History and Classical Civilization 325 (Topic 6). History of Asia, Egypt, and the Mediterranean world from Alexander's expedition to Asia to Rome's defeat of the last of the Hellenistic monarchs at Actium (ca. 334 to 31 BC). Two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 5), 325 (Topic 6), Classical Civilizations 351D, 354D, History 351D, 354D. Prerequisite: Upper-division standing.

#### **HIS 351P. History of Religion in America since 1800.**

Same as Religious Studies 326. Introduction to the history of religion in the United States of America from the nineteenth century to the present. Focuses on how diverse peoples imagined and transformed the landscape, interacted with one another at different sites, and moved within and across national borders. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **HIS 352L. The Mexican Revolution, 1910-1920.**

Same as Latin American Studies 366 (Topic 8: The Mexican Revolution, 1910-1920). An analytical examination of the initial decade of the Mexican Revolution, the first of the twentieth-century nationalist social revolutions; examines through lectures and discussion the historical antecedents and the political, economic, social, and intellectual elements of the upheaval. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **HIS 352P. England in the Twentieth Century.**

A survey of political, economic, social, and intellectual trends, with emphasis on class relationships. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: England in the Twentieth Century), History 352P, 362G (Topic: England in the Twentieth Century). Prerequisite: Upper-division standing.

#### **HIS 353. The French Revolution and Napoleon.**

Same as Core Texts and Ideas 363 and European Studies 346 (Topic 25). Analysis of the social, political, and economic origins and outcomes of the French Revolution and Napoleon's empire. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: French Revolution and Napoleon), 346

(Topic 25), Core Texts and Ideas 363, 375 (Topic: French Revolution and Napoleon), History 353. Prerequisite: Upper-division standing.

#### **HIS 354E. Archaic and Classical Greece.**

Same as Ancient History and Classical Civilization 325 (Topic 7) and Core Texts and Ideas 375 (Topic 7). Survey of Greek history from the emergence of the city-states to the rise of Macedonia. Two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic 4), 325 (Topic 7), Classical Civilizations 354C, Core Texts and Ideas 375 (Topic: Archaic and Classical Greece), 375 (Topic 7), History 354C, 354E. Prerequisite: Upper-division standing.

#### **HIS 354F. The Three French Wars of the Twentieth Century.**

Focuses on 20th century France, with an emphasis on three critical conflicts: World War One, World War Two, and the Algerian war. Three lecture hours a week for one semester. History 354F and 362G (Topic: Three French Wars: 20th Cen) may not both be counted. Prerequisite: Upper-division standing.

#### **HIS 354N. France in Modern Times.**

The impact of revolution on French political, economic, and social development in the nineteenth and twentieth centuries. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **HIS 355F. The United States, 1877-1920.**

Examines the Gilded Age and Progressive Era to depict the rise of modern America. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **HIS 355M. The United States, 1920-1941.**

Same as American Studies 358. A history of political, economic, diplomatic, military, social, and cultural developments in the United States between the two world wars. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **HIS 355N. Main Currents of American Culture to 1865.**

Same as American Studies 355. Traces the development of American culture and society from the colonial era until the end of the Civil War. Major themes include racial conflict, religion, slavery, the development of democracy, and cultural reform. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **HIS 355P. The United States since 1941.**

A history of political, economic, diplomatic, social, and cultural developments in the United States since the nation's entry into World War II. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **HIS 355S. United States Constitutional History.**

A lecture and discussion course dealing with the history of the development of the American constitutional tradition from colonial times to the present. Three lecture hours a week for one semester. History 355S and 366N (Topic: United States Constitutional History) may not both be counted. Prerequisite: Upper-division standing.

#### **HIS 356G. History of the United States West.**

Examines the history of the trans-Mississippi West with a special focus on the concepts of conquest, resistance, and region from the nineteenth to the twentieth century. Three lecture hours a week for one semester. History 356G and 365G (Topic: History of the United States West) may not both be counted. Prerequisite: Upper-division standing.

**HIS 356K. Main Currents of American Culture since 1865.**

Same as American Studies 356. Traces the development of American culture and society from the end of the Civil War to the present. Major themes include racial conflict, pluralism, religion, urban development and reform, modernism, government centralization, cultural radicalism, and the rebirth of conservatism. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 356P. The United States in the Civil Rights Era.**

Same as African and African Diaspora Studies 351L and American Studies 321 (Topic 9). Examines United States history in the post-World War II era, including how civil rights and other racial issues helped shape the politics, popular culture, and social life of this period. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351L, 374D (Topic 17), American Studies 321 (Topic 9), History 356P, Mexican American Studies 374 (Topic 36). Prerequisite: Upper-division standing.

**HIS 356R. America and the Holocaust.**

Same as American Studies 321 (Topic 4) and Jewish Studies 365 (Topic 1). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic 4), 370 (Topic: America and the Holocaust), History 350L (Topic: America and the Holocaust), 356R, 365G (Topic: America and the Holocaust), Jewish Studies 361 (Topic: America and the Holocaust), 365 (Topic 1), Liberal Arts Honors 350 (Topic: America and the Holocaust). Prerequisite: Upper-division standing.

**HIS 356S. American Presidency: 1789 to the Present.**

Examines the presidency and the individuals who have held it, with an eye toward discovering trends of historical and contemporary interest. Three lecture hours a week for one semester. Only one of the following may be counted: History 350R (Topic: The History of the American Presidency), 350R (Topic 34: The History of the American Presidency), 356S, 365G (Topic 9: The History of the American Presidency). Prerequisite: Upper-division standing.

**HIS 357C. African American History to 1860.**

Same as African and African Diaspora Studies 357C and American Studies 321E. Review of West African origins; New World settlement patterns, social life, and culture; discussion of the Atlantic slave trade, the development of capitalism and plantation slavery, and the origins of racism. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357C, American Studies 321 (Topic: African American History to 1860), 321E, History 357C. Prerequisite: Upper-division standing.

**HIS 357D. African American History since 1860.**

Same as African and African Diaspora Studies 357D, American Studies 321F, and Urban Studies 327D. Survey of the history of African Americans in the United States from 1860 to the present: Emancipation, Reconstruction politics, migration and urbanization, and the evolution of African American culture; kinds of sources and methods valuable for analyzing African American life and culture. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357D, American Studies 321 (Topic: African American History since 1860), 321F, History 357D, Urban Studies 327D, 353 (Topic 1). Prerequisite: Upper-division standing.

**HIS 358M. History of Britain from 1783 through World War I.**

Same as European Studies 346 (Topic 1). Surveys the political, social, economic, and intellectual history of Great Britain from the years preceding the outbreak of the French Revolution to the conclusion of World War I. Three lecture hours a week for one semester. European

Studies 346 (Topic 1) and History 358M may not both be counted. Prerequisite: Upper-division standing.

**HIS 358Q. Supervised Research.**

Individual instruction. Prerequisite: Upper-division standing.

**HIS 359N. History of Africa since 1800.**

Same as African and African Diaspora Studies 359N. Development of sub-Saharan Africa from the end of the slave trade to independence. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 359P. History of East Africa.**

Same as African and African Diaspora Studies 345. A survey of the history of Kenya, Tanzania, and Uganda from prehistoric times to the postindependence era. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 359R. History of West Africa.**

Same as African and African Diaspora Studies 345C. A history of the West Africa region: the rise and fall of kingdoms, relations with Europe and Asia, the great revolutions of the nineteenth century, colonial administration, decolonization, and the search for economic development and political stability since independence. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**HIS 359S. Mandela: The Man and His Politics.**

Same as African and African Diaspora Studies 340C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340C, 374C (Topic: Mandela: The Man and His Politics), History 359S, 364G (Topic: Mandela: The Man and His Politics). Prerequisite: Upper-division standing.

**HIS 361C. The World of the Victorians.**

Same as European Studies 346 (Topic 39). Introduction to the main contours of social and cultural British history, both in Britain and in its burgeoning empire. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: The World of the Victorians), 346 (Topic 39), History 361C, 362G (Topic 13). Prerequisite: Upper-division standing.

**HIS 361D. The Church and the Jews.**

Same as European Studies 346 (Topic 28), Jewish Studies 364 (Topic 10), and Religious Studies 3570. Examination of the complex relationship between the Western Church and Jews over two millennia. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: The Church and the Jews), 346 (Topic 28), History 361D, 362G (Topic 14), Jewish Studies 364 (Topic 10), Religious Studies 357 (Topic 9), 3570. Prerequisite: Upper-division standing.

**HIS 361E. Rebels and Revolutionaries in Russian History and Literature.**

Same as Comparative Literature 323 (Topic 20) and Russian, East European, and Eurasian Studies 325 (Topic 24). Study of fictional and real rebels and revolutionaries across almost a century of Russian literature. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 20), History 361E, 362G (Topic 15), Russian 356 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic 24). Prerequisite: Upper-division standing.

**HIS 361F. Berlin.**

Same as Comparative Literature 323 (Topic 44), European Studies 347 (Topic 34), German, Scandinavian, and Dutch Studies 361M, and Urban

Studies 326F. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Berlin), 323 (Topic 44), European Studies 347 (Topic: Berlin), 347 (Topic 34), German, Scandinavian, and Dutch Studies 360 (Topic: Berlin), 361M, History 361F, 362G (Topic: Berlin), 362G (Topic 17), Urban Studies 326F, 353 (Topic: Berlin), 353 (Topic 7). Prerequisite: Upper-division standing.

### **HIS 361G. The Sacred and the Secular in Modern European Thought.**

Same as Core Texts and Ideas 332, European Studies 346 (Topic 32), and Religious Studies 357S. Introduces key themes and methodologies of intellectual history and social theory by exploring the dueling approaches to secularization and sacralization in modern European thought. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 332, 335 (Topic: Sacred and Secular in Modern European Thought), 335 (Topic 7), European Studies 346 (Topic: Sacred and Secular in Modern European Thought), 346 (Topic 32), History 361G, 362G (Topic: Sacred and Secular in Modern European Thought), 362G (Topic 19), Religious Studies 357 (Topic: Sacred and Secular in Modern European Thought), 357 (Topic 20), 357S. Prerequisite: Upper-division standing.

### **HIS 361J. Medieval Warfare.**

Examine the development of warfare between the late Roman Empire and the early modern world (c. 400-1500), including a brief retrospective on war in the ancient world. Three lecture hours a week for one semester. Only one of the following may be counted: History 361J, 362K (Topic: Medieval Warfare), 362K (Topic 1). Prerequisite: Upper division standing.

### **HIS 361Q. Cultural Citizenship in the United States and Latin America.**

Same as Latin American Studies 366 (Topic 27). An introduction to the history of relations between the United States and Latin America. Designed to prepare each student for a potential experience in Latin America (or with Latino communities in the United States) such as study abroad, research, and/or community engagement. Three lecture hours a week for one semester. Only one of the following may be counted: History 361Q, 363K (Topic 1), Latin American Studies 366 (Topic 27). Prerequisite: Upper-division standing.

### **HIS 361R. Nazi Culture and Politics.**

Same as European Studies 348 (Topic 10), German, Scandinavian, and Dutch Studies 361V, and Government 368V. Explore fundamental questions about the unique role of culture in modern democracies and dictatorships by taking an overview of culture and politics in the Third Reich. Examine questions about the relationship between political propaganda and modern entertainment, mass media and authoritarianism, political aesthetics and ideology, and the dynamics of oppression, resistance, and consent. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic: Nazi Culture and Politics), 348 (Topic 10), German, Scandinavian, and Dutch Studies 360 (Topic: Nazi Culture and Politics), 361V, Government 365N (Topic: Nazi Culture and Politics), 368V, History 361R, 362G (Topic: Nazi Culture and Politics). Prerequisite: Upper-division standing.

### **HIS 361S. European Espionage 1914-1989.**

Same as Russian, East European, and Eurasian Studies 335 (Topic 32). Examine the development and transformation of espionage, intelligence, and surveillance in Europe from the first World War to the end of the Cold War. Three lecture hours a week for one semester. Only one of the following may be counted: History 361S, 362G (Topic: European Espionage 1914-89), Russian, East European, and Eurasian Studies 335 (Topic 32). Prerequisite: Upper-division standing.

### **HIS 362C. Vienna: Memory and the City.**

Same as American Studies 370 (Topic 41), European Studies 346 (Topic 5), and Urban Studies 322C. Examines the ways in which cultural memory has shaped, and continues to shape, urban life in Vienna, Austria. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic 41), European Studies 346 (Topic 5), Geography 356T (Topic: Vienna: Memory and the City), Germanic, Scandinavian, and Dutch Studies 360 (Topic: Vienna: Memory and the City), History 362C, 362G (Topic 2), Urban Studies 322C, 354 (Topic 7). Prerequisite: Upper-division standing.

### **HIS 362D. Introduction to the Holocaust.**

Same as European Studies 346 (Topic 17), Jewish Studies 364 (Topic 6), and Russian, East European, and Eurasian Studies 335 (Topic 17). Examines the mass killing of Jews and other victims in the context of Nazi Germany's quest for race and space during World War II. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Introduction to the Holocaust), 346 (Topic 17), History 362D, 362G (Topic: Introduction to the Holocaust), 362G (Topic 3), Jewish Studies 364 (Topic: Introduction to the Holocaust), 364 (Topic 6), Russian, East European, and Eurasian Studies 335 (Topic: Introduction to the Holocaust), 335 (Topic 17). Prerequisite: Upper-division standing.

### **HIS 362E. Early Western Colonialism.**

Same as European Studies 346 (Topic 15). An examination of the phenomenon of colonialism, with an emphasis on the European expansion across the globe that began at the end of the western Middle Ages and continued throughout the early modern period. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Early Western Colonialism), 346 (Topic 15), History 362E, 362G (Topic: Early Western Colonialism), 362G (Topic 5). Prerequisite: Upper-division standing.

### **HIS 362F. The First World War.**

Examine the tensions and conflicts between 1914 and 1918 that set the stage for the violent twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: History 362F, 362G (Topic: First World War), 362G (Topic 6). Prerequisite: Upper-division standing.

### **HIS 362P. Spinoza and Modernity.**

Same as Core Texts and Ideas 321F, European Studies 346 (Topic 21), Jewish Studies 364 (Topic 9), and Religious Studies 357M. Introduction to the core of Spinoza's writings and the diverse reactions they have elicited. Examines Spinoza's refusal of mind-body dualism, as well as a transcendent god or ideal as a way of understanding Spinoza's concepts and ideas. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 321F, European Studies 346 (Topic 21), 347 (Topic: Spinoza and Modernity), History 362P, Jewish Studies 364 (Topic 9), Philosophy 354 (Topic 7), Religious Studies 357 (Topic 8), 357M. Prerequisite: Upper-division standing.

### **HIS 362Q. Eastern Europe in the Twentieth Century.**

Same as European Studies 346 (Topic 16) and Russian, East European, and Eurasian Studies 335 (Topic 16). Examines the major political, social, and cultural events that shaped Eastern European society in the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 16), History 362G (Topic 7), 362Q, Russian, East European, and Eurasian Studies 335 (Topic 16). Prerequisite: Upper-division standing.

### **HIS 362R. Jews of Eastern Europe.**

Same as Jewish Studies 364 (Topic 7), Religious Studies 357E, and Russian, East European, and Eurasian Studies 335 (Topic 23). Explores

the history and culture of Jews in Eastern Europe. Three lecture hours a week for one semester. Only one of the following may be counted: History 362G (Topic 8), 362R, Jewish Studies 364 (Topic 7), Russian, East European, and Eurasian Studies 335 (Topic 23), Religious Studies 357 (Topic 13), 357E. Prerequisite: Upper-division standing.

### **HIS 362S. Southeast Europe in the Twentieth Century.**

Same as European Studies 346 (Topic 18), Jewish Studies 364 (Topic 8), and Russian, East European, and Eurasian Studies 335 (Topic 18). Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 18), History 362G (Topic 9), 362S, Jewish Studies 364 (Topic 8), Russian, East European, and Eurasian Studies 335 (Topic 18). Prerequisite: Upper-division standing.

### **HIS 362T. Heretics and Freedom Fighters, 1350-1650.**

Same as European Studies 346 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic 3), and Religious Studies 357F. Explores the theologies, politics, and personal identities that emerged and passed away in this era. Three lecture hours a week for one semester. Only one of the following may be counted: Czech 324 (Topic 4), European Studies 346 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic 12), 362T, Religious Studies 357 (Topic 12), 357F, Russian, East European, and Eurasian Studies 325 (Topic 28). Prerequisite: Upper-division standing.

### **HIS 363C. Argentina: Populism and Insurrection.**

Same as Latin American Studies 366 (Topic 28). An overview of principal trends and issues in Argentine history from independence to the present. Three lecture hours a week for one semester. Only one of the following may be counted: History 363C, 363K (Topic 2), Latin American Studies 366 (Topic 28). Prerequisite: Upper-division standing.

### **HIS 363D. Religion, Conquest, and Conversion in Colonial Latin America.**

Same as Latin American Studies 366 (Topic 29) and Religious Studies 368F. Focuses on the histories of the Catholic Church and religious devotion in colonial Latin America between 1521 and 1821. Three lecture hours a week for one semester. Only one of the following may be counted: History 363D, 363K (Topic 3), Latin American Studies 366 (Topic 29), Religious Studies 368 (Topic 4), 368F. Prerequisite: Upper-division standing.

### **HIS 363E. Mapping Latin America.**

Same as Geography 343E and Latin American Studies 330 (Topic 4). Discuss the role of maps in the creation of Latin America as a specific sort of place. As such, allows familiarity with a broad overview of Latin American history from Pre-Columbian civilizations to the modern period. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 343E, 356T (Topic: Mapping Latin America), 356T (Topic 12), History 363E, 363K (Topic: Mapping Latin America), 363K (Topic 4), Latin American Studies 330 (Topic: Mapping Latin America), 330 (Topic 4). Prerequisite: Upper-division standing.

### **HIS 363F. The Bible in the Colonial Americas.**

Same as Core Texts and Ideas 355, Latin American Studies 366 (Topic 34), and Religious Studies 366C. Varied perspectives on the central role played by the Old Testament in the construction of colonial cultures in the Americas. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 355, 375 (Topic 6), History 363F, 363K (Topic 5), Latin American Studies 366 (Topic 34), Religious Studies 366 (Topic 3), 366C. Prerequisite: Upper-division standing.

### **HIS 363J. Life and Politics in Contemporary Mexico.**

Same as Latin American Studies 366 (Topic 39). Examine an overview of life and politics in contemporary Mexico. Three lecture hours a week for one semester. Only one of the following may be counted: History 363J, 363K (Topic: Life/Politics Contemp Mexico), Latin American Studies 366 (Topic: Life/Politics Contemp Mexico), 366 (Topic 39). Prerequisite: Upper-division standing.

### **HIS 363T. Latin America in the Sixties.**

Same as Latin American Studies 366 (Topic 38). Explore the impact of the Cuban revolution in Latin American politics, gender roles, and women's participation in public life during the sixties. Three lecture hours a week for one semester. Only one of the following may be counted: History 363K (Topic: Latin America in the Sixties), 363T, 366N (Topic: Latin America in the Sixties), Latin American Studies 366 (Topic: Latin America in the Sixties), 366 (Topic 38). Prerequisite: Upper-division standing.

### **HIS 364C. History of Hindu Religious Traditions.**

Same as Anthropology 322N, Asian Studies 340D, and Religious Studies 321. History of major doctrines, practices, and institutions that shaped the development of Hinduism; how religions adapt to social and cultural change and often provide the catalyst for change. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322N, 324L (Topic 23), Asian Studies 340 (Topic 4), 340D, History 364C, 364G (Topic 1), Religious Studies 321. Prerequisite: Upper-division standing.

### **HIS 364D. Prophet of Islam: His Life and Times.**

Same as Islamic Studies 340 (Topic 1) and Religious Studies 325. A detailed study of the prophet Muhammad's life and message, and of the means by which his life was recorded and popularized. Three lecture hours a week for one semester. Only one of the following may be counted: History 364G (Topic 2), 364D, Islamic Studies 340 (Topic 1), Religious Studies 325. Prerequisite: Upper-division standing.

### **HIS 364E. The Dead Sea Scrolls.**

Same as Ancient History and Classical Civilization 330 (Topic 1), Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), and Religious Studies 353D. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic 1), History 364G (Topic 3), 364E, Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), Religious Studies 353D. Prerequisite: Upper-division standing.

### **HIS 364F. African History in Films and Photographs.**

Same as African and African Diaspora Studies 340F and Women's and Gender Studies 340 (Topic 73). Explore the social, economic, and political challenges of the past fifty years of Africa's history through an examination of several popular films. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340F, 372G (Topic 32), History 364F, 364G (Topic 4), Women's and Gender Studies 340 (Topic: African History in Films and Photographs), 340 (Topic 73). Prerequisite: Upper-division standing.

### **HIS 364J. African Women's History.**

Same as African and African Diaspora Studies 340E and Women's and Gender Studies 340 (Topic 32). Major themes include politics, economics, religion, the family, culture, technology, feminism, colonialism, nationalism, and development in relation to the lives of African women. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340E, 372G (Topic: African Women's History), 372G (Topic 6), History

364G (Topic: African Women's History), 364G (Topic 5), 364J, Women's and Gender Studies 340 (Topic: African Women's History), 340 (Topic 32). Prerequisite: Upper-division standing.

### **HIS 364P. Apartheid: South African History.**

Same as African and African Diaspora Studies 340D and Women's and Gender Studies 340 (Topic 42). A study of the social, political, economic, and cultural history of South Africa to contextualize the rise of apartheid. Primarily focuses on the period since 1948 from the perspectives of women, children, and men of all racial backgrounds who lived through that particular period. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340D, 374C (Topic: Apartheid: South African History), 374C (Topic 6), History 364G (Topic: Apartheid: South African History), 364G (Topic 6), 364P, Women's and Gender Studies 340 (Topic: Apartheid: South African History), 340 (Topic 42). Prerequisite: Upper-division standing.

### **HIS 364Q. French Empire: The West and Islam.**

Same as Islamic Studies 372 (Topic 22) and Religious Studies 358F. The development of regions within the Mediterranean, variously called the West and East or Europe and Islam, with an emphasis on the role of modern France and France's Mediterranean empire. Three lecture hours for one semester. Only one of the following may be counted: History 364G (Topic 7), 364Q, Islamic Studies 372 (Topic 22), Religious Studies 358 (Topic 16), 358F. Prerequisite: Upper-division standing.

### **HIS 364R. Modernization in East Asia.**

Same as Asian Studies 361 (Topic 34). Examines the different historical experiences of mainland China and Taiwan in the context of the East Asian model of development. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 34), History 364G (Topic 8), 364R. Prerequisite: Upper-division standing.

### **HIS 365G. Topics in United States History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: United States Catholic History.** Same as American Studies 327D, Mexican American Studies 374 (Topic 37), and Religious Studies 346F. Examine how Catholicism and national identity work for Catholics in the United States, with an emphasis on Catholic women and Latino/as. Only one of the following may be counted: American Studies 327 (Topic 4), 327D, History 365G (Topic 1), Mexican American Studies 374 (Topic 37), Religious Studies 346 (Topic 5), 346F. Additional prerequisite: Upper-division standing.

**Topic 2: Popular Music in the United States.** Same as American Studies 325C. Traces the history of popular music in the United States and its influence on American politics, economics, and culture from the 1880s to present day. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Popular Music in the US), 325C, History 365G (Topic: Popular Music in the US), 365G (Topic 2). Additional prerequisite: Upper-division standing.

**Topic 3: United States Economic History since 1880.** The history of American capitalism from 1865 to 2000; examines innovation, economic rights, and the role of the state. History 365G (Topic: United States Economic History since 1880) and 365G (Topic 3) may not both be counted.

**Topic 4: The Vietnam Wars.** Same as American Studies 321 (Topic 11). Introduction to the complex and controversial history of the wars fought in Vietnam from 1941 to the 1980s. Only one of the following may be counted: American Studies 321 (Topic: Vietnam Wars), 321

(Topic 11), Asian Studies 372 (Topic: Vietnam Wars), History 365G (Topic: Vietnam Wars), 365G (Topic 4).

**Topic 5: Science, Ethics, and Society.** Explores the ethics of scientific experimentation on humans in the nineteenth and twentieth centuries. History 365G (Topic: Science, Ethics, and Society) and 365G (Topic 5) may not both be counted.

**Topic 6: Antebellum Slavery.** Same as African and African Diaspora Studies 351K and Women's and Gender Studies 340 (Topic 33). Examination of slavery at its maturity during the nineteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351K, 374D (Topic 16), History 365G (Topic 6), Women's and Gender Studies 340 (Topic 33). Additional prerequisite: Upper-division standing.

**Topic 7: Texas Black History.** Same as African and African Diaspora Studies 351J. Surveys the history of blacks in Texas from before American settlement to the present. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351J, 374D (Topic 15), History 365G (Topic 7). Additional prerequisite: Upper-division standing.

**Topic 8: Women and Social Movements in the Twentieth-Century United States.** Same as African and African Diaspora Studies 351C, American Studies 321 (Topic 10), and Women's and Gender Studies 340 (Topic 53). Examines women's participation in well-known and lesser-known social movements during the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351C, 372C (Topic: Women and Socl Mvmnts in US), 372C (Topic 7), American Studies 321 (Topic 10), History 365G (Topic 8), Women's and Gender Studies 340 (Topic 53). Additional prerequisite: Upper-division standing.

**Topic 10: Twentieth-Century United States Lesbian and Gay History.** Same as American Studies 370 (Topic 49) and Women's and Gender Studies 335 (Topic 18). Examines classic texts and recent and varied writings on LGBT history, focused on experiences, ideas, and conflicts that have shaped modern LGBT identities. Only one of the following may be counted: American Studies 370 (Topic: United States Lesbian and Gay History, Twentieth Century), 370 (Topic 49), History 365G (Topic: United States Lesbian and Gay History, Twentieth Century), 365G (Topic 10), Women's and Gender Studies 335 (Topic 18), 340 (Topic: United States Lesbian and Gay History, Twentieth Century).

**Topic 11: History of the Southeast Asian Diaspora in the United States.** Same as Asian American Studies 325G. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic 8), 325G, History 365G (Topic 11). Additional prerequisite: Upper-division standing.

**Topic 12: History of the United States-Mexico Borderland.** Same as Mexican American Studies 364. Introduction to the history of the United States and Mexico border region. Three lecture hours a week for one semester. Only one of the following may be counted: History 365G (Topic: History of the United States-Mexico Borderland), 365G (Topic 12), Mexican American Studies 364, 374 (Topic: History of the United States-Mexico Borderland). Additional prerequisite: Upper-division standing.

**Topic 13: Race, Law, and United States Society.** Same as African and African Diaspora Studies 360 and American Studies 370 (Topic 5). Examines the intersection of racial ideology and legal culture in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360, 372F (Topic: Race, Law, and US Society), American Studies 370 (Topic: Race, Law, and US Society), 370 (Topic 5), History 365G (Topic: Race, Law, and US Society), 365G (Topic 13). Additional prerequisite: Upper-division standing.

**Topic 14: South Asian Migration to the United States.** Same as Asian American Studies 325J, Asian Studies 372P, and Women's and Gender Studies 340 (Topic 35). Examines the South Asian diaspora in the United States. Three lecture hours a week for one semester. Only one

of the following may be counted: Asian American Studies 325 (Topic: South Asian Migration to the United States), 325 (Topic 9), 325J, Asian Studies 372 (Topic: South Asian Migration to the United States), 372 (Topic 43), 372P, History 365G (Topic: South Asian Migration to the United States), 365G (Topic 14), Women and Gender Studies 340 (Topic: South Asian Migration to the United States), 340 (Topic 35). Additional prerequisite: Upper-division standing.

**Topic 15: United States Military History.** Explore the use of "authorized violence" and "unauthorized violence" by the U.S. military and examine how both types of violence have changed American history since initial colonization. History 365G (Topic: United States Military History) and 365G (Topic 15) may not both be counted.

**Topic 16: Unbelief in America.** Same as Religious Studies 346I. Examine the history of unbelief and the role that it has played in US history. Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic: Unbelief in America), 365G (Topic: Unbelief in America), 365G (Topic 16), Religious Studies 346 (Topic: Unbelief in America), 346I. Additional prerequisite: Upper-division standing.

**Topic 17: Mexican American Studies at UT.** Same as American Studies 322D and Mexican American Studies 320I. Trace the origins and development of Mexican American Studies at the national, regional, and local levels. Collaborate to help preserve and recognize the significance of Mexican American Studies at the University in historical and contemporary contexts. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: 50 Yrs Mex Am Studies at UT), 322D, History 365G (Topic: 50 Yrs Mex Am Studies at UT), 365G (Topic 17), Mexican American Studies 320I, 374 (Topic: 50 Yrs Mex Am Studies at UT). Additional prerequisite: Upper-division standing.

**Topic 21: Power and Place: Making Texas History.** Same as African and African Diaspora Studies 320C, Mexican American Studies 320C, and Race, Indigeneity, and Migration 320C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 320C, 370 (Topic: Power/Place: Making Tex His), History 365G (Topic: Power/Place: Making Tex His), 365G (Topic 21), Mexican American Studies 320C, Race, Indigeneity, and Migration 320C. Additional prerequisite: Upper-division standing.

### **HIS 366D. Jews: Nation or People.**

Same as Jewish Studies 364 (Topic 16) and Middle Eastern Studies 343 (Topic 16). Three lecture hours a week for one semester. Only one of the following may be counted: History 366D, 366N (Topic: Jews: Nation or People?), Jewish Studies 364 (Topic: Jews: Nation or People?), 364 (Topic 16), Middle Eastern Studies 343 (Topic: Jews: Nation or People?), 343 (Topic 16). Prerequisite: Upper-division standing

### **HIS 366E. Restitution and Restorative Justice after the Holocaust.**

Same as European Studies 346 (Topic 35), Jewish Studies 364 (Topic 17), and Middle Eastern Studies 343 (Topic 17). Examine attempts to find a measure of justice after the Holocaust. Explore themes of human rights and international law. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Holocaust/Restitutn/Justice), 346 (Topic 35), History 366E, 366N (Topic: Holocaust/Restitutn/Justice), Jewish Studies 364 (Topic: Holocaust/Restitutn/Justice), 364 (Topic 17), Middle Eastern Studies 343 (Topic: Holocaust/Restitutn/Justice), 343 (Topic 17). Prerequisite: Upper-division standing.

### **HIS 366F. Politics of Food in Latin America.**

Same as Latin American Studies 366 (Topic 40). Examine food production, food consumption, and socio-cultural identities in Latin America through comparative and multidisciplinary research. Three lecture hours a week for one semester. Only one of the following may be

counted: History 363K (Topic: Politics of Food in Latin Amer), 366F, Latin American Studies 366 (Topic: Politics of Food in Latin Amer), 366 (Topic 40). Prerequisite: Upper-division standing.

### **HIS 366N. Topics in History.**

Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 15: Anti-Semitism.** Same as Jewish Studies 365 (Topic 13) and Sociology 321S. Surveys trends in Judeophobia/anti-Semitism over 2,500 years in both Christian and non-Christian societies. Designed to use anti-Semitism as way to explore more general ideas in social theory such as boundary making; models of racial, ethnic, and cultural conflict; and the role of intellectual and scientific elites. Three lecture hours a week for one semester. Only one of the following may be counted: History 366N (Topic: Anti-Semitism), 366N (Topic 15), Jewish Studies 365 (Topic: Anti-Semitism), 365 (Topic 13), Sociology 321K (Topic: Anti-Semitism), 321S. Additional prerequisite: Upper-division standing.

**Topic 17: British History, Literature, and Politics.** Same as Liberal Arts Honors 350 (Topic 19). Restricted to Plan I majors in the College of Liberal Arts. Reading course in history, literature, and politics, and as a class in professional writing. Examines not only the literature, history, and politics of England, Wales, Scotland, and Ireland, but also the interaction of British and other societies throughout the world. Only one of the following may be counted: History 366N (Topic: British History, Literature and Politics), 366N (Topic 17), Liberal Arts Honors 350 (Topic: British History, Literature and Politics), 350 (Topic 19), Tutorial Course 325 (Topic: British History, Literature and Politics). Additional prerequisite: Grade point average of at least 3.50.

**Topic 18: Global History of Disease.** Same as African and African Diaspora Studies 350R. Introduction to major themes in the history of medicine through the lens of disease. To be considered are the roles governments, medical practitioners, and patients play in the social construction of disease and health. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350R, 372D (Topic: Global History of Disease), History 366N (Topic: Global History of Disease), 366N (Topic 18). Additional prerequisite: Upper-division standing.

### **HIS 366P. Sexuality and Gender in Latin America.**

Same as Latin American Studies 366 (Topic 41) and Women's and Gender Studies 340 (Topic 91). Explore gender as a broad analytical tool to understand key problems concerning social organization, power relations, and inequality in contemporary Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: History 363K (Topic: Sexuality/Gender in Latin Amer), 366N (Topic: Sexuality/Gender in Latin Amer), 366P, Latin American Studies 366 (Topic: Sexuality/Gender in Latin Amer), 366 (Topic 41), Women's and Gender Studies 340 (Topic: Sexuality/Gender in Latin Amer), 340 (Topic 91). Prerequisite: Upper-division standing.

### **HIS 366Q. Newton's Principia.**

Same as Core Texts and Ideas 371N. Examine key sections of Newton's Principia Mathematica Philosophiae Naturalis. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 371N, 375 (Topic: Newton's Principia), History 366Q, 366N (Topic: Newton's Principia). Prerequisite: Upper-division standing.

### **HIS 367C. Business and Society in South Asia.**

Same as Asian Studies 361 (Topic 46). Introduction to the long history of commerce and enterprise in the Indian sub-continent up to the present. Three lecture hours a week for one semester. Only one of the following

may be counted: Asian Studies 361 (Topic 46), History 364G (Topic 12), 367C. Prerequisite: Upper-division standing.

### **HIS 367D. Gender and Modern India.**

Same as Asian Studies 361 (Topic 44) and Women's and Gender Studies 340 (Topic 75). Examines gender and the shifting nature of modernity between precolonial and colonial periods in the Indian subcontinent. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Gender and Modern India), 361 (Topic 44), History 364G (Topic: Gender and Modern India), 364G (Topic 13), 367D, Women's and Gender Studies 340 (Topic: Gender and Modern India), 340 (Topic 75). Prerequisite: Upper division standing.

### **HIS 367E. History of the Pilgrimage to Mecca, Hajj.**

Same as Middle Eastern Studies 343 (Topic 7) and Religious Studies 358P. Survey of the Hajj, Islam's major pilgrimage to Mecca and the nearby Holy Places. It will examine the Islamic pilgrimage from its beginnings in the seventh century C.E. through today. Three lecture hours a week for one semester. Only one of the following may be counted: History 364G (Topic: History of the Pilgrimage to Mecca, Hajj), 364G (Topic 14), 367E, Middle Eastern Studies 343 (Topic: History of the Pilgrimage to Mecca), 343 (Topic 7), Religious Studies 358 (Topic: History of the Pilgrimage to Mecca), 358 (Topic 24), 358P. Prerequisite: Upper-division standing.

### **HIS 367F. Slavery and South Asian History.**

Same as Asian Studies 361 (Topic 43). Discuss the presence of slavery in the subcontinent in the third century BCE to the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Slavery and South Asian History), 361 (Topic 43), History 364G (Topic: Slavery and South Asian History), 364G (Topic 16), 367F. Prerequisite: Upper-division standing.

### **HIS 367Q. History of Food and Healing in China and Taiwan.**

Same as Asian Studies 361D. Explore the cultural, historical, philosophical, social, and scientific background against which the connection between food and healing has evolved through Chinese history. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Hist Food/Heal China Taiwan), 361D, History 364G (Topic: Hist Food/Heal China Taiwan), 367Q. Prerequisite: Upper-division standing.

### **HIS 367S. Islam in the Early Modern World: Religion and Culture.**

Same as Islamic Studies 373 (Topic 20), Middle Eastern Studies 343 (Topic 20), and Religious Studies 359D. Examine a history of the religious and cultural development across the Islamic world between the thirteenth and eighteenth centuries, stemming from the rise of the Mongols and the end of the caliphate. Explore the early modern Muslim empires of the Ottomans, Safavids, and the Mughals. Three lecture hours a week for one semester. Only one of the following may be counted: History 364G (Topic: Islam Early Mod World:Rel/Cult), 367S, Islamic Studies 372 (Topic: Islam Early Mod World:Rel/Cult), 373 (Topic 20), Middle Eastern Studies 343 (Topic: Islam Early Mod World:Rel/Cult), 343 (Topic 20), Religious Studies 358 (Topic: Islam Early Mod World:Rel/Cult), 358 (Topic 22), 359D. Prerequisite: Upper-division standing.

### **HIS 368S. The Age of the Samurai.**

Same as Asian Studies 361Q. Explore the history of Japan via an examination of the complex and ever-changing figure of the samurai. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361Q, 372 (Topic: The Age of the Samurai), History 364G (Topic: The Age of the Samurai), 368S. Prerequisite: Upper-division standing.

### **HIS 369Q. Black Lives in the Archives.**

Same as African and African Diaspora Studies 352J. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352J, 374E (Topic: Black Lives in the Archives), History 366N (Topic: Black Lives in the Archives), 369Q. Prerequisite: Upper-division standing.

### **HIS 371Q. Nationalisms in the Caribbean.**

Same as African and African Diaspora Studies 345I and Latin American Studies 366C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345I, 374E (Topic: Nationalism in Caribbean), History 363K (Topic: Nationalism in Caribbean), 371Q, Latin American Studies 366 (Topic: Nationalism in Caribbean), 366C. Prerequisite: Upper-division standing.

### **HIS 372L. Proseminar in Historical Source Readings.**

Individual instruction in reading history and historiography. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor; consent forms are available in the departmental advising office.

### **HIS 372M. Proseminar in Historical Writing.**

Individual instruction in historical research and writing. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor; consent forms are available in the departmental advising office.

### **HIS 372Q. Race, Rebellion and Revolution in the Caribbean.**

Same as African and African Diaspora Studies 345J and Latin American Studies 366D. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345J, 374E (Topic: Race/Rebellion/Rev Caribbean), History 363K (Topic: Race/Rebellion/Rev Caribbean), 372Q, Latin American Studies 366 (Topic: Race/Rebellion/Rev Caribbean), 366D. Prerequisite: Upper-division standing.

### **HIS 374Q. Race Against Empire: Americas.**

Same as African and African Diaspora Studies 345K and Latin American Studies 366 (Topic 44). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345K, 374E (Topic: Race Against Empire: Amers), History 366N (Topic: Race Against Empire: Americas), 374Q, Latin American Studies 366 (Topic: Race Against Empire: Amers), 366 (Topic 44). Prerequisite: Upper-division standing.

### **HIS 375D. Islamic Spain and North Africa to 1492.**

Same as Middle Eastern Studies 343 (Topic 4) and Religious Studies 345. An introduction to the impact of Islam on Spain and North Africa, with emphasis on social, economic, and cultural development. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Islamic Spain and North Africa to 1492), History 375D, Islamic Studies 373 (Topic: Islamic Spain and North Africa to 1492), Middle Eastern Studies 343 (Topic 4), Religious Studies 345, 363 (Topic: Islamic Spain and North Africa to 1492). Prerequisite: Upper-division standing.

### **HIS 375K. Tudor England, 1485-1603.**

Same as European Studies 346 (Topic 37). Exploration of the most important political, religious, social, economic, and intellectual changes that occurred in England between the accession of Henry VII and the death of Elizabeth I. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Tudor England, 1485-1603), 346 (Topic 37), History 375K. Prerequisite: Upper-division standing.

### **HIS 375L. Stuart England, 1603-1689.**

Same as European Studies 346 (Topic 36). Topical lecture course focusing on the most significant political, religious, social, economic, and cultural developments in seventeenth-century England. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Stuart England, 1603-1689), 346 (Topic 36), History 375L. Prerequisite: Upper-division standing.

### **HIS 375M. Modern Spain, 1800 to the Present.**

Political, social, and economic changes in the nineteenth century: the Second Republic; the Spanish Civil War; the Franco Era and the transition to democracy after 1975. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **HIS 376F. The United States and the Second World War.**

Restricted to students in the Normandy Scholars Program. Three lecture hours a week for one semester, and approximately three weeks of study in France.

### **HIS 376G. Hitler, Nazism, and World War II.**

Same as Liberal Arts Honors 351W. Restricted to students in the Normandy Scholars Program. Three lecture hours a week for one semester, and approximately three weeks of study in France. Only one of the following may be counted: History 376G, Liberal Arts Honors 350 (Topic: Hitler, Nazism, & World War II), 351W. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **HIS 378W. Capstone in History.**

Pursue in-depth the research interests and skills developed in other history classes. Three lecture hours a week for one semester. Prerequisite: History 320W (or 318W) and twelve semester hours of coursework in history.

### **HIS 679H. Honors Tutorial Course.**

An individual instruction course to provide training in the methods and teaching of historical research and writing. The equivalent of three semester hours a week for two semesters. May not be included in the thirty semester hours of coursework required for the major. Prerequisite: For 679HA, upper-division standing and admission to the History Honors Program; for 679HB, History 679HA.

## **Graduate Courses**

### **HIS 380K. History of Science.**

Topics cover scientific development since ancient times, including the scientific revolution, 1500-1800; the development of specific scientific disciplines; and the relationship between science and social change. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 380L. Topics in European Imperialism.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 1: European Imperialism: British Empire.** Same as Asian Studies 391 (Topic 3) and Middle Eastern Studies 385 (Topic 12). Study of the British empire in the Middle East, Asia and Africa. Only one of the following may be counted: Asian Studies 391 (Topic 3), History 380L (Topic 1), Middle Eastern Studies 385 (Topic 12). Additional prerequisite: Graduate standing.

### **HIS 381. Topics in World History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 381J. Research Seminar in World History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 382H. Research Seminar in the History of East and South Asia.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 382J. Research Seminar in African History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **HIS 382L. Topics in African History.**

Seminar on selected topics on precolonial African societies and African societies since 1875. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 382N. Topics in the History of East and South Asia.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; some topics also require consent of instructor.

**Topic 1: Social and Religious Reform in Modern India.** Same as Asian Studies 384 (Topic 5: Social and Religious Reform in Modern India). Only one of the following may be counted: Asian Studies 384 (Topic 5), History 382N (Topic 1), Religious Studies 394T (Topic: Social and Religious Reform in Modern India).

**Topic 2: Women in Islamic Societies.** Same as Asian Studies 391 (Topic 7: Women in Islamic Societies) and Middle Eastern Studies 385 (Topic 7: Women in Islamic Societies). Only one of the following may be counted: Asian Studies 391 (Topic 7), History 382N (Topic 2), Middle Eastern Studies 385 (Topic 7).

**Topic 4: Communalism in Colonial India.** Same as Asian Studies 384 (Topic 2: Communalism in Colonial India).

### **HIS 382Q. Introductory Conference Course in African History.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor; consent forms are available in the departmental graduate advising office.

### **HIS 382R. Introductory Conference Course in Asian History.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor; consent forms are available in the departmental graduate advising office.

### **HIS 382S. Introductory Conference Course in Middle Eastern History.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor; consent forms are available in the departmental graduate advising office.

### **HIS 382T. Introductory Conference Course in European History.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor; consent forms are available in the departmental graduate advising office.

### **HIS 382U. Introductory Conference Course in American History.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor; consent forms are available in the departmental graduate advising office.

### **HIS 382V. Introductory Conference Course in Latin American History.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor; consent forms are available in the departmental graduate advising office.

### **HIS 383. Seminar in Modern European History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 383C. Literature of European History.**

Three lecture hours a week for one semester. Required of all entering graduate students in European history. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 1: Literature of European History: The Medieval Period.**

**Topic 2: Literature of European History: The Early Modern Period.**

**Topic 3: Literature of European History: The Modern Period.**

### **HIS 383D. Communism in Eastern Europe.**

Same as Russian, East European, and Eurasian Studies 387 (Topic 3). Explore the complicated nature of communist rule in Eastern Europe in its many forms, from Poland in the North to Yugoslavia in the South. Examine the variety of lived experiences of citizens of Eastern Europe, from the imposition of communism in the region after World War II to the collapse of the system in 1989. Discuss the most recent scholarship on the region that ties regional developments to the broader Cold War context, and covers issues ranging from state-society dynamics, to religion, consumer culture, urban change, and collectivization. Three lecture hours a week for one semester. Only one of the following may be counted: History 383J (Topic: Communism/ Eastern Europe), 383D, Russian, East European, and Eurasian Studies 385 (Topic: Communism/ Eastern Europe), 387 (Topic: 3). Prerequisite: Graduate standing.

### **HIS 383J. Research Seminar in Modern European History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 383L. Seminar in General Economic History.**

Same as Economics 383K. A historical study of economic development and economic policy. The equivalent of three lecture hours a week for one semester. With consent of instructor, may be repeated for credit when the topics vary. Prerequisite: Graduate standing, six semester hours of upper-division coursework in economics or related history or government, and six additional semester hours of upper-division coursework in social science or business.

### **HIS 383M. Studies in the Atlantic Worlds.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 384K. Seminar in British History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 384M. Seminar in Tudor-Stuart History.**

Reading and research in the history of England under the Tudors and Stuarts, 1485-1689. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 385P. Topics in Public and Digital History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 386K. Seminar in Latin American History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, reading knowledge of Spanish or Portuguese, and consent of the graduate adviser.

### **HIS 386L. Research Seminar in Latin American History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, reading knowledge of Spanish or Portuguese, and consent of the graduate adviser; some topics also require consent of instructor.

### **HIS 386S. Stalinism: Ideology and Culture.**

Same as Russian, East European, and Eurasian Studies 386 (Topic 5). Examine Stalinism as a complex historical, ideological, and cultural phenomenon that crucially shaped Russia's destiny from the twentieth century to the present moment. Consider this phenomenon beyond popular stereotypes (blood-thirsty tyrant; miserable and terrorized population; total propaganda; etc). Three lecture hours a week for one semester. Only one of the following may be counted: History 386S, Russian, East European, and Eurasian Studies 386 (Topic: Stalinism: Ideology & Culture), 386 (Topic 5). Prerequisite: Graduate standing.

### **HIS 387J. Research Seminar in Early Modern Europe.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 387M. Studies in Early Modern Europe.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 388J. Research Seminar in Middle Eastern History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 388K. Seminar in Middle Eastern History.**

Development of Middle Eastern history since the beginning of modern times. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; some topics also require consent of instructor.

**Topic 2: Intellectual History of Indo-Iranian Islam.** Same as Asian Studies 390 (Topic 6) and Middle Eastern Studies 381 (Topic 37).

### **HIS 388M. Problems and Methods of Historical Demography.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 389. Research Seminar in United States History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 391C. Conference Course.**

Designed to expand the graduate student's opportunity for individual consultation. Conference course. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor; consent forms are available in the departmental graduate advising office.

### **HIS 392. Seminar in United States History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser; some topics also require consent of instructor.

### **HIS 393L. Qualifying Examination.**

Preparation for qualifying examinations. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 394H. Introduction to Historical Inquiry.**

Introduction to a variety of theoretical, methodological, or historiographical approaches to the past. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 395. Seminar in Bibliography and Methods.**

A seminar to acquaint the advanced student with the nature and extent of materials for study and writing in United States history. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 397K. Literature of United States History.**

Survey of historical writing and historiography from colonial times to the present. Three lecture hours a week for one semester. Required of all entering graduate students in United States history. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser; additional prerequisites vary with the topic.

**Topic 1: Literature of United States History Before 1865.** Survey of historical writing and historiography to 1865. Designed to introduce students to the field of early American history.

**Topic 2: Literature of United States History Since 1865.** Examines trends in American historiography from 1865 to the present.

### **HIS 397L. Medieval History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser; some topics also require consent of instructor.

### **HIS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in history and consent of the graduate adviser; for 698B, History 698A.

### **HIS 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in history and consent of the graduate adviser.

### **HIS 398T. Supervised Teaching in History.**

Weekly group meetings with the instructor, individual consultations, and reports. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **HIS 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Human Development and Family Sciences Courses**

## **Human Development and Family Sciences: HDF**

### **Lower-Division Courses**

#### **HDF 304 (TCCN: TECA 1303). Family Relationships.**

Same as Women's and Gender Studies 301 (Topic 4). The process of family interaction over the life cycle. Application of research findings to the understanding of relationships. Only one of the following may be counted: Human Development and Family Sciences 304, 304H, Women's and Gender Studies 301 (Topic 4).

#### **HDF 304H. Family Relationships: Honors.**

The process of family interaction over the life cycle. Application of research findings to the understanding of relationships. Three lecture hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 304, 304H, Women's and Gender Studies 301 (Topic 4). Offered on the letter-grade basis only. Prerequisite: Consent of the department.

#### **HDF 305. Health and Development Across the Lifespan.**

Investigate the experiences of health and well-being across the life span of both individuals and families. Apply research findings to explore how physical and mental health are influenced by societal contexts. Three lecture hours a week for one semester.

#### **HDF 306. Introduction to Gender and Sexuality.**

Same as Women's and Gender Studies 301 (Topic 31). Explore social, emotional, cognitive, and physical aspects of gender and sexuality within the contexts of individual human development, families, and cultures. Three lecture hours a week for one semester.

#### **HDF 312. Family Resource Management.**

Management concepts and theory in resource allocation used to meet family and life demands. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Human Development and Family Sciences 304.

#### **HDF 313 (TCCN: TECA 1354). Child Development.**

Same as Women's and Gender Studies 313. Motor, language, cognitive, social, and emotional development in the family context. Three lecture hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 313, 313H, 313.

Prerequisite: Credit or registration for Human Development and Family Sciences 113L.

### **HDF 313H. Child Development: Honors.**

Motor, language, social, and emotional development of children in the family context, with an emphasis on research findings and evaluations. Three lecture hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 313, 313H, Women's and Gender Studies 301 (Topic 5: Child Development). Offered on the letter-grade basis only. Prerequisite: Credit or registration for Human Development and Family Sciences 114H, and consent of the department.

### **HDF 113L. Child Development Laboratory.**

Observe children at the University Child and Family Laboratory and relate observations to the issues discussed in related coursework. One and one-half laboratory hours a week for one semester. Human Development and Family Sciences 113L and 114H may not both be counted. Prerequisite: Credit or registration for Human Development and Family Sciences 313 or 313H, and consent of the department.

### **HDF 114H. Child Development Laboratory: Honors.**

Observe children at the University Child and Family Laboratory and relate observations to the issues discussed in related coursework. One and one-half laboratory hours a week for one semester. Human Development and Family Sciences 113L and 114H may not both be counted. Prerequisite: Credit or registration for Human Development and Family Sciences 313 or 313H, and consent of the department.

### **HDF 315L. Research Methods in Human Development and Family Sciences.**

Survey of research methods, including observational and experimental techniques. Three lecture hours a week for one semester. Prerequisite: Statistics and Data Sciences 302; credit with a grade of at least C- or registration for Human Development and Family Sciences 304 or 304H, 313 or 313H, and 113L.

### **HDF 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Human Development and Family Sciences.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **HDF 322. Personal and Family Finance.**

Overview from the individual and family perspectives of financial planning tools, cash management, consumer credit, basic tax preparation, and insurance selection. Includes application of knowledge to hypothetical situations and case studies. Three lecture hours a week for one semester. Human Development and Family Sciences 322 and Finance 322F may not both be counted. Prerequisite: Upper-division standing.

### **HDF 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Human Development and Family Sciences.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in

residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **HDF 335. Adult Development.**

Adulthood and the development, changes, and maturation that occurs, including the impact of relationships in adulthood. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Human Development and Family Sciences 313 or 313H, and 113L with a grade of at least C- in each.

### **HDF 337. Personal Relationships.**

Studies intimate relationships, including dating, cohabitation, marriage, and gay and lesbian relationships, as well as situational factors that may influence basic relationship processes. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; Human Development and Family Sciences 304 or 304H, and 315L with a grade of at least C- in each.

### **HDF 338. Developmentally Appropriate Practices with Young Children.**

Developmentally appropriate practices, the importance of play, arranging environments, material selection, and a basic understanding about centers and activities for young children. Three lecture hours a week for one semester, with an additional three to six hours of fieldwork sometime during the semester. Prerequisite: Upper-division standing; and a grade of at least C- in one of the following: Human Development and Family Sciences 313 and 113L, 313H and 113L, or Psychology 304.

### **HDF 340. Ethical, Philosophical, and Professional Development Issues.**

Explores ethical and philosophical issues; personal values and choices; professional development and leadership; and career goals, opportunities, and challenges as they relate to human development and family sciences. Three lecture hours a week for one semester. Human Development and Family Sciences 340 and Human Ecology 101P may not both be counted. Human Development and Family Sciences 340 and Human Ecology 102P may not both be counted. Human Development and Family Sciences 340 and Human Ecology 103P may not both be counted. Prerequisite: Upper-division standing.

### **HDF 342. Development of Psychopathology from Infancy through Adolescence.**

A developmental approach to the study of emotional and behavioral disorders from infancy through adolescence, including attachment disorders, autism, attention deficit disorder, conduct disorder, phobias, obsessive-compulsive disorder, depression, eating disorders, and schizophrenia. Also includes contrasting theories of psychopathology, epidemiology and outcomes of childhood disorders, therapeutic approaches and their efficacy, and developmental resilience. Three lecture hours a week for one semester. Human Development and Family Sciences 342 and Psychology 339 may not both be counted. Prerequisite: Upper-division standing; Human Development and Family Sciences 313 or 313H, and 113L with a grade of at least C- in each.

### **HDF 343. Human Development in Minority and Immigrant Families.**

Examines the theories of human development and cultural psychology as they apply to the developmental issues of minority and immigrant children and families. Three lecture hours a week for one semester. Human Development and Family Sciences 343 and 378K (Topic: Child Development in Minority and Immigrant Families) may not both be counted. Prerequisite: Upper-division standing and Human Development and Family Sciences 313 or 313H, 113L, and 315L with a grade of at least C- in each.

**HDF 345. Peer Relationships.**

Children's peer relationships from toddlerhood to adolescence. Three lecture hours a week for one semester. Human Development and Family Sciences 345 and 378K (Topic: Peer Relationships) may not both be counted. Prerequisite: Upper-division standing; Human Development and Family Sciences 313 or 313H, 113L, and 315L with a grade of at least C- in each.

**HDF 347. Socioeconomic Problems of Families.**

An analysis of how socioeconomic factors, including income, education, employment, and their intersection with race and gender affect child development and family functioning. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and six semester hours of coursework in anthropology, economics, education, human development and family sciences, psychology, social work, or sociology.

**HDF 351. Infant Development and Attachment Relationships.**

The development of emerging social language and cognitive capacities during infancy and toddlerhood and the development and consequences in infant-caregiver attachment security. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Human Development and Family Sciences 313 or 313H, 113L, and 315L, with a grade of at least C- in each.

**HDF 352. Field Experience: Community.**

Practicum in applied settings concerning human development and family sciences. One lecture hour and ten to twelve hours of fieldwork a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.00; the following coursework with a grade of at least C- in each course: Human Development and Family Sciences 304 or 304H, 313 or 313H, 113L, 315L, and 340; Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332; and nine additional semester hours of upper-division coursework in human development and family sciences. Admission by application only, filed with the Department of Human Development and Family Sciences by May 1 for enrollment in the following spring semester, or by December 1 for enrollment in the following fall semester.

**HDF 652F. Field Practicum: Community.**

Designed for students in their last semester. Practicum in settings concerning human development and family sciences. One lecture hour and at least twenty laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.00; the following coursework with a grade of at least C- in each course: Human Development and Family Sciences 304 or 304H, 313 or 313H, 113L, 315L, and 340; Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332; and nine additional semester hours of upper-division coursework in human development and family sciences. Admission by application only, filed with the Department of Human Development and Family Sciences by May 1 for enrollment in the following spring semester, or by December 1 for enrollment in the following fall semester.

**HDF 352L. Field Experience: Early Childhood.**

Study and implementation of skills necessary for planning, guiding, and interacting with young children and their families, and for the management of facilities that provide services for young children. One lecture hour and ten to twelve hours of fieldwork a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.00; the following coursework with a grade of at least C- in each course: Human Development and Family Sciences 304 or 304H, 313 or 313H, 113L, and 315L, Statistics and Data Sciences

302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332; Human Development and Family Sciences 338, 340, and 466; three additional semester hours of upper-division coursework in human development and family sciences; and consent of instructor. Admission by application only, filed with the Department of Human Development and Family Sciences by May 1 for enrollment in the following spring semester, or by December 1 for enrollment in the following fall semester.

**HDF 652P. Field Practicum: Early Childhood.**

Designed for students in their last semester. Study and implementation of skills necessary for planning, guiding, and interacting with young children and their families; and for the management of facilities that provide services for young children. One lecture hour and at least twenty laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.00; the following coursework with a grade of at least C- in each course: Human Development and Family Sciences 304 or 304H, 313 or 313H, 113L, and 315L, Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332; Human Development and Family Sciences 338, 340, and 466; three additional semester hours of upper-division coursework in human development and family sciences; and consent of instructor. Admission by application only, filed with the Department of Human Development and Family Sciences by May 1 for enrollment in the following spring semester, or by December 1 for enrollment in the following fall semester.

**HDF 353. Longevity in the 21st Century.**

Explores questions concerning the rapidly changing world in which people routinely live into old age. Focus on challenges adults face at the individual, familial, and societal level due to a prolonged adulthood. Three lecture hours a week for one semester. Human Development and Family Sciences 353 and 378K (Topic: Longevity in the 21st Century) may not both be counted. Prerequisite: Upper-division standing; and Human Development and Family Sciences 304 or 304H, and 315L with a grade of at least C- in each.

**HDF 155H, 255H, 355H, 655H. Problems Course: Honors.**

Intensive study of selected research problems. For each semester hour of credit earned, at least three laboratory hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Human Development and Family Sciences 315L with a grade of at least B-; Mathematics 316, Statistics and Data Sciences 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), or 306 (or Statistics and Scientific Computation 306) with a grade of at least B-; a University grade-point average of at least 3.00; and consent of the department.

**HDF 155R, 255R, 355R, 655R. Problems Course: Research Practicum.**

Intensive study of selected problems of a transdisciplinary nature. For each semester hour of credit earned, the equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.00; the following coursework with a grade of at least C- in each course: Human Development and Family Sciences 304 or 304H, 313 or 313H, 113L, and 315L; Mathematics 408C, 408N, 408R, Statistics and Data Sciences 302, or 332; and consent of instructor. Admission by application only, filed with the Department of Human Development and Family Sciences by May 1 for enrollment in the following spring semester, or by December 1 for enrollment in the following fall semester; or consent of instructor. For nonmajors, the application process and prerequisites may be waived by consent of instructor.

### **HDF 356. The Evolution of Relationships.**

Reviews the scientific literature on the evolution and function of adult romantic relationships. Three lecture hours a week for one semester. Prerequisite: Human Development and Family Sciences 304 or 304H.

### **HDF 157, 257, 357, 657. Applied Child Development.**

Apply theoretical concepts in child development through fieldwork with children and families in a laboratory school setting. Observe children and practice professional interactions with children and families. For each semester hour of credit earned, three hours of fieldwork a week. May be taken twice for credit. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: University grade point average of at least 2.00, Human Development and Family Sciences 313 or 313H with a grade of at least C-, and consent of instructor.

### **HDF 358. Parent-Child Relationships.**

The determinants of parenting attitudes and behavior and the effects on children of variations in sensitivity, discipline, and other aspects of parenting. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Human Development and Family Sciences 313 or 313H, 113L, and 315L with a grade of at least C- in each.

### **HDF 159, 259, 359, 659. Advanced Applied Research Experience.**

Apply research experience in areas of a transdisciplinary nature. For each semester hour of credit earned, the equivalent of three laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Prerequisite: Upper-division standing; a University grade point average of at least 3.00; the following coursework with a grade of at least C: Human Development and Family Sciences 313 or 313H, 304, 305, or 306; consent of instructor and consent of the department.

### **HDF 360. Methods of Family Life Education.**

An examination, integrating theory and applied knowledge, of the best practices for working with families. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Human Development and Family Sciences 304 or 304H, and 315L with a grade of at least C- in each.

### **HDF 362. Children and Public Policy.**

The positive and negative effects of policy on children and the policy landscape in several major domains of child and family life in the United States and in other countries. Three lecture hours a week for one semester. Prerequisite: Six semester hours of upper-division coursework in human development and family sciences, anthropology, education, psychology, sociology, or social work.

### **HDF 266C. Guidance in Adult-Child Relationships.**

Explore the theory and implementation of positive child and adult interactions, communication, and guidance strategies. Two lecture hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 266C, 466, Women's and Gender Studies 345 (Topic 4: Guidance in Adult-Child Relationships), 466. Prerequisite: Credit or registration for Human Development and Family Sciences 266L; Human Development and Family Sciences 313 or 313H, and 113L or 114H and three semester hours of upper-division coursework in human development and family sciences, education, psychology, or sociology with a grade of at least C- in each; consent of instructor and consent of the department.

### **HDF 266L. Guidance in Adult Child Relationships Lab.**

Interact with children and families at the Priscilla Pond Flawn Child and Family Laboratory while under supervision, to explore the development of skills in positive child and adult interactions, communication, guidance strategies, and observational data collection. Four hours of fieldwork

a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 266L, 466, Women's and Gender Studies 345 (Topic 4: Guidance in Adult-Child Relationships), 466. Prerequisite: Credit or registration for Human Development and Family Sciences 266C. Human Development and Family Sciences 313 or 313H, and 113L or 114H and three semester hours of upper-division coursework in human development and family sciences, education, psychology, or sociology, with a grade of at least C- in each; consent of instructor and consent of the department.

### **HDF 371. Adolescent Development in Context.**

The biological, cognitive, and social changes that occur during the second decade of life, including the developmental issues faced by adolescents. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Human Development and Family Sciences 313 or 313H, 113L, and 315L, with a grade of at least C- in each.

### **HDF 372K. Families in Transition.**

Analysis of interaction, transitions, and crises over the family life span. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and the following courses with a grade of at least C- in each: Human Development and Family Sciences 304 or 304H, and 315L and 337.

### **HDF 378K. Advanced Child and Family Development.**

Concepts, theories, and issues in human development and family sciences. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in human development and family sciences (or child development), anthropology, education, psychology, sociology, or social work, and consent of instructor.

#### **Topic 5: Media and the Family.**

#### **Topic 6: Introduction to Early Childhood Intervention.**

**Topic 8: Advanced Early Childhood Intervention.** Additional prerequisite: Human Development and Family Sciences 378K (Topic 6).

**Topic 9: Introduction to Child Life.** Introduction to the role of child life specialists in health care settings and the application of general human development principles to the care of hospitalized children and adolescents. Human Development and Family Sciences 378K (Topic: Introduction to Child Life) and 378K (Topic 9) may not both be counted.

**Topic 10: Sexuality in Human Development and Family Sciences.** Introduction to contemporary understandings of sexuality in the context of human development and families, organized around major subjects in the field of sexuality studies. Human Development and Family Sciences 378K (Topic: Sexuality in Human Development and Family Sciences) and 378K (Topic 10) may not both be counted.

### **HDF 378L. Theories of Child and Family Development.**

Study and analysis of major theories in human and family development. Three lecture hours a week for one semester. Prerequisite: The following with a grade of at least C- in each: Human Development and Family Sciences 313 or 313H, 113L, 315L, and three additional semester hours of upper-division coursework in human development and family sciences.

### **HDF 379H. Honors Tutorial Course.**

Supervised individual research on a special topic in human development and family sciences; oral presentation and preparation of a scholarly paper covering the research. May be based on laboratory, library, or field research. Conference course. May be repeated once for credit. Prerequisite: Upper-division standing, a University grade point average of at least 3.00, admission to the human development and family sciences

honors program, and consent of the honors adviser. Name of honors adviser and application procedure are available in the division office.

## Graduate Courses

### HDF 380K. Research Methods.

Two lecture hours and one and one-half laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in human development and family sciences, or graduate standing and consent of instructor.

**Topic 1: Research Methods in Human Development and Family Sciences.**

**Topic 2: Foundational Statistics and Nested Models in Human Development and Family Sciences.** This course focuses on data organization and statistics used in the social behavioral sciences. It begins with a review of basic data management, inferential statistics, graphing, advanced regression, and ANOVA, then concludes with an introduction into the analysis of nested data.

**Topic 3: Analyzing Development and Change.**

**Topic 4: Advanced Regression and Structural Models.**

### HDF 192, 292, 392, 692. Research Problems.

Directed research in various topics in the area of human development and family sciences. One, two, three, or six lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in human development and family sciences, or graduate standing and consent of instructor.

**Topic 1: Child Development.**

**Topic 2: Family Relationships.**

**Topic 3: Marital Relationships.**

**Topic 4: Peer Relationships.**

**Topic 5: Parent-Child Relationships.**

**Topic 6: The Family and Public Policy.**

**Topic 7: The Family and the Mass Media.**

### HDF 394. Graduate Seminar.

Seminars in various topics in the area of human development and family sciences. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in human development and family sciences, or graduate standing and consent of instructor.

**Topic 1: Parent-Child Interaction.**

**Topic 2: Family-Peer Relationships.**

**Topic 3: Marital Relationships.**

**Topic 4: Sex Roles in Family Relationships.**

**Topic 5: Immigration and the Family .**

**Topic 6: Intergenerational Parenting.**

**Topic 7: Divorce.**

**Topic 8: Family Systems Theory.**

**Topic 9: Children and Poverty.**

**Topic 10: Adult Development.**

**Topic 11: Issues in Early Childhood Development.**

**Topic 12: Attachment and Development through the Life Span.**

**Topic 13: The Self in Relationships.**

**Topic 14: Adoptive Family Relationships.**

**Topic 16: Development of Close Relationships.**

**Topic 17: Prevention, Intervention, and Evaluation in Human Development and Family Sciences.** Human Development and Family Sciences 394 (Topic: Prevention, Intervention, and Evaluation in Human Development and Family Sciences) and 394 (Topic 17) may not both be counted.

### HDF 395. Recent Advances in Human Development and Family Sciences.

Research and theory focused on the interplay between individual development, family relationships, and institutions and relationships outside the family. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in human development and family sciences, or graduate standing and consent of instructor.

**Topic 1: Child and Adolescent Development.**

**Topic 2: Contextual Influences on Individual and Family Development.**

**Topic 3: Adult Development and Aging.** A multidisciplinary overview of adult development from young adulthood through old age. Examines major sociological, psychological, and biological theory and research in the field of adult development such as adult development and the aging process from cells to social security with an emphasis on social and emotional development, as well as psychological aspects of adult development.

**Topic 4: The Formation and Development of Intimate Relationships.**

Critical review of theory and research on dating and marital relationships, with an emphasis on how relationships change over time. Subjects include attraction, relationship initiation and formation, relationship maintenance processes and relationship dissolution.

### HDF 397P. Practicum in Human Development and Family Sciences.

Practicum hours to be arranged. Prerequisite: Graduate standing and consent of the graduate adviser.

### HDF 698. Thesis.

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in human development and family sciences and consent of the graduate adviser; for 698B, Human Development and Family Sciences 698A.

### HDF 398T. Supervised Teaching in Human Development and Family Sciences.

Teaching under close supervision, group meetings, individual conferences, and reports. Conference course. Prerequisite: Graduate standing and appointment as a teaching assistant.

### HDF 399W, 699W, 999W. Dissertation.

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## Professional Courses

# Human Dimensions of Organizations Courses

## Human Dimensions of Organizations: HDO Lower-Division Courses

### HDO 301. Introduction to the Human Dimensions of Organizations.

Introduction to organizations and how the liberal arts can examine, analyze, and change them. Defines organizations from a liberal arts standpoint; survey of career opportunities related to the human dimensions of organizations. Three lecture hours a week for one semester.

## Upper-Division Courses

### HDO 320. Multidisciplinary Methods for Exploring Organizations.

Analyze and synthesize organizational studies from a liberal arts viewpoint. Examine types of organizations, explore problems these organizations face, and consider the ways distinct methodologies might address these problems. Three lecture hours a week for one semester. Prerequisite: Human Dimensions of Organizations 301 with a grade of at least B-.

### HDO 325N. Organizational Ethics.

Same as Philosophy 325N. Examine the practical and theoretical aspects of ethical issues in organizations, including philosophical, psychological, anthropological, and strategic approaches. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Human Dimensions of Organizations 325N, Philosophy 325N, 365 (Topic: Organizational Ethics). Prerequisite: Upper-division standing.

### HDO 330. Topics in Human Dimensions of Organizations.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and Human Dimensions of Organizations 301.

### HDO 359H. Honors Research I.

The equivalent of three lecture hours a week for one semester. Prerequisite: Human Dimensions of Organizations 301 and 320 with a grade of at least B-; and admission to the honors program.

### HDO 365. Bias.

Same as Cognitive Science 365 and Linguistics 365. An interdisciplinary introduction to bias from the perspectives of psychology, political science, business, philosophy, and linguistics. Three lecture hours a week for one semester. Only one of the following may be counted: Cognitive Science 365, 360 (Topic: Bias), Linguistics 365, 350 (Topic: Bias), Human Dimensions of Organizations 330 (Topic: Bias), 365. Prerequisite: Upper-division standing.

### HDO 379. Applying the Human Dimensions of Organizations.

Restricted to human dimensions of organizations majors. Explores multidisciplinary methods of the human dimensions of organizations with an external entity. Focus on the role of the liberal arts viewpoint in practical settings. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Human Dimensions of Organizations 320, and consent of adviser.

### HDO 379H. Honors Research II.

Supervised conference course for honors candidates in Human Dimensions of Organizations. The equivalent of three lecture hours a week for one semester. Prerequisite: Human Dimensions of Organizations 359H with a grade of at least A-.

## Graduate Courses

### HDO 380. Cultural Perspectives on the Human Dimensions of Organizations.

Restricted to students in the human dimensions of organizations degree program. Examines broad aspects of the role of culture in organizations through a variety of disciplinary lenses. Culture includes both global cultures, as well as cultures created by organizations. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### HDO 381. Individual Perspectives on the Human Dimensions of Organizations.

Restricted to students in the human dimensions of organizations degree program. A general introduction to the roles of individuals in organizations from a multidisciplinary perspective. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### HDO 382. Approaches to Leadership.

Restricted to students in the human dimensions of organizations degree program. Examines broad aspects of organizational leadership through a variety of disciplinary lenses. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### HDO 383. Society, Culture and Organizational Diversity.

Restricted to students in the human dimensions of organizations degree program. Examines multidisciplinary frameworks for understanding society and culture in organizations. The effects of gender, race/ethnicity, sexual orientation, culture, and globalization on organizational change may be discussed. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### HDO 384. Organizational Inertia, Decision Making and Change.

Restricted to students in the human dimensions of organizations degree program. Reviews theories and methods for understanding how organizational environments support habits, and how individuals and groups make decisions. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### HDO 285. Organizational Ethics.

Restricted to students in the human dimensions of organizations degree program. Examines ethics as they pertain to organizational contexts. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### HDO 386. Persuasion and Argumentation.

Restricted to students in the human dimensions of organizations degree program. Focuses on how effective persuasion works within organizations and at the individual level. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### HDO 287. The Structure of Organizations.

Restricted to students in the human dimensions of organizations degree program. A multidisciplinary approach to understanding how money, information, and influence flow through organizations and between related organizations. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### HDO 388. Conference Course in Human Dimensions of Organizations.

Restricted to students in the human dimensions of organizations degree program. Individual directed study of selected topics in related human dimensions of organizations field. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of the graduate adviser.

### HDO 289. Writing and Researching Organizations.

Restricted to students in the human dimensions of organizations degree program. Exposure to various approaches to organizational writing and

research. Explores the ways these approaches might inform student Capstone Projects. Examines strategies to plan, organize, and execute an organization-based research project. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

#### **HDO 390. Qualitative Research Methods.**

Restricted to students in the human dimensions of organizations degree program. Covers qualitative approaches to studying people in organizational settings. Approaches may include narrative, phenomenology, grounded theory, ethnography, case studies. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

#### **HDO 391. Quantitative Research Methods.**

Restricted to students in the human dimensions of organizations degree program. Quantitative approaches for studying the human dimensions of organizations. Examines the mechanics and assumptions of common methods in quantitative methods, including experimental design, survey research, and quantitative coding of archival data. Emphasizes students' ability to know and identify what types of research questions are best-suited to the different quantitative approaches. Reviews the types of data that various designs produce, and some basic statistical assessments of quantitative data. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

#### **HDO 292. Computational Methods.**

Restricted to students in the human dimensions of organizations degree program. Analyzing and interpreting data drawn from large-scale data sets. Approaches include social network analysis, web analytics, and linguistic corpus analysis. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

#### **HDO 695. Capstone Project.**

Restricted to students in the human dimensions of organizations degree program. Focuses on the completion of the capstone project, the culmination of work in the human dimensions of organization degree. The equivalent of six lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, consent of the graduate adviser, and consent of instructor.

#### **HDO 197. Practicum in Human Dimensions of Organizations.**

Restricted to students in the human dimensions of organizations degree program. Applied study in human dimensions of organizations. The equivalent of one lecture hour a week for one semester, plus additional hours to be arranged. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, consent of the graduate adviser, and consent of instructor.

### **Professional Courses**

## **Human Ecology Courses**

### **Human Ecology: H E**

#### **Lower-Division Courses**

##### **H E 101P. Professional Development I.**

Explore common career paths, identify professional and personal goals, and develop entry-level career portfolios. One lecture hour a week for one semester. Human Development and Family Sciences 340 and Human Ecology 101P may not both be counted.

##### **H E 102P. Ethics Across Life.**

Examine applied ethics in the workplace and in adult life with a focus on working in teams and organizations effectively. One lecture hour a week for one semester. Human Development and Family Sciences 340 and Human Ecology 102P may not both be counted. Prerequisite: Credit or registration for Human Ecology 101P.

##### **H E 103P. Professional Development II.**

Explore a practical approach to professional self-presentation, leadership and decision-making, and career development. One lecture hour a week for one semester. Human Development and Family Sciences 340 and Human Ecology 103P may not both be counted. Prerequisite: Human Ecology 101P and credit or registration for Human Ecology 102P.

##### **H E 115H. Freshman Honors Seminar.**

Research presentations by students, faculty, and invited scientists on current issues in human ecology, human development and family sciences, and nutrition. One lecture hour a week for one semester. Prerequisite: Admission to the honors degree option in human development and family sciences or nutrition; three semester hours of honors-designated coursework in chemistry, biology, or mathematics with a grade of at least B-; and Human Development and Family Sciences 313 and 113L, or Nutrition 312 and 112L, with a grade of at least B- in each course.

### **Upper-Division Courses**

##### **H E 225H. Sophomore Honors Seminar.**

Students plan, conduct, write, and present research on a current topic in human ecology. Two lecture hours a week for one semester. Prerequisite: Six semester hours of honors-designated coursework in chemistry, biology, or mathematics; concurrent enrollment in a course chosen from a list maintained in the departmental office; and consent of instructor and the departmental honors adviser.

##### **H E 355. Problems Course.**

Intensive study of selected problems of a transdisciplinary nature. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor; additional prerequisites vary with the topic.

#### **Topic 1: Research in Family Economics.**

### **Graduate Courses**

##### **H E 392. Research Problems.**

Problems may be chosen from the areas of family and consumer economics or textiles and apparel. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **Professional Courses**

## **Humanities Courses**

### **Humanities: HMN**

#### **Lower-Division Courses**

##### **HMN 101. Community Service.**

Tutorial course, in which the student submits a report based on a community service project and appropriate supplementary reading. Conference course. Prerequisite: Consent of the humanities adviser.

##### **HMN 102T. Design A Path.**

Restricted to humanities majors. Design a humanities contract of courses and write a personal statement. Examine the research process

and academic writing. One lecture hour a week for one semester. Offered on the letter-grade basis only.

#### **HMN 104. Introduction to Humanities Honors Research.**

Restricted to students in the humanities program. Explore research from an interdisciplinary perspective. Develop a thesis project proposal in groups. One lecture hour a week for one semester.

#### **HMN 110, 210, 310. Internship.**

Students work in a professional environment, applying analytical, communication, and other academic skills to practical work. For each semester hour of credit earned, one lecture hour and ten hours of fieldwork a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Consent of the humanities director.

#### **HMN 116, 216, 316. Topics in the Humanities.**

Intensive lecture or seminar course addressing topics in various disciplines in the humanities. For each semester hour of credit earned, one lecture hour a week for one semester. Humanities 116 and Liberal Arts Honors 103H may not both be counted. May be repeated for credit when the topics vary. Prerequisite: Consent of the humanities adviser.

#### **HMN 318Q. Supervised Research.**

Individual instruction. Prerequisite: Consent of the humanities adviser.

### **Upper-Division Courses**

#### **HMN 321. Humanism and Western Civilization: The Ancient World.**

A history of humanism in ancient Greece and Rome. The contributions of humanism to the values we place on the individual and human potential, democratic government, the arts, religion, and the family. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

#### **HMN 322. Humanism and Western Civilization: The Renaissance.**

A history of humanism during the European Renaissance, the thirteenth through the sixteenth century. The contributions of humanism to the values we place on the individual and human potential, democratic government, the arts, religion, and the family. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

#### **HMN 323. Humanism and Western Civilization: The Enlightenment.**

A history of humanism during the Enlightenment. The contributions of humanism to the values we place on the individual and human potential, democratic government, the arts, religion, and the family. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

#### **HMN 125J. Junior Fellows Seminar.**

Restricted to students in the Junior Fellows Program. Receive guidance on developing and producing an undergraduate research project. One lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing.

#### **HMN 125K. The Arts, Sciences, and Social Sciences.**

Analysis of topics in the arts, sciences, and social sciences through reading, discussion, and lectures. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Consent of the humanities adviser.

#### **HMN 350. Topics in the Humanities.**

Study of the values underlying humanistic disciplines. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

##### **Topic 2: Daily Life in Northern Europe.**

##### **Topic 3: Geography and Religion.** Same as Geography 358E.

Ideas about the relationships among the natural world, myth, and ritual; principal focus on Christianity, Islam, and Judaism and their offshoots and antagonists in the Western world. Geography 358E and Humanities 350 (Topic 3) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 4: Reading Images: Icons and Beliefs.** The content (not the aesthetics or the technical, compositional features) of selected Renaissance paintings, sculptures, and prints. Additional prerequisite: Upper-division standing.

**Topic 5: Great Trials in Western History.** The intellectual and historical importance of a variety of significant trials in Western history.

Humanities 350 (Topic 5) and Liberal Arts Honors 350 (Topic: Great Trials in Western History) may not both be counted.

**Topic 6: In Search of Meaning.** Restricted to Plan I majors in the College of Liberal Arts. Intensive lecture course exploring various disciplinary perspectives and values underlying humanistic disciplines. Concepts include: monotheism, the nature and personality of this god, the soul, chosen people, linear time, history as divine classroom, original sin, heaven, hell, salvation, etc. Establishes how and when these and a host of other features came into existence and created Judeo-Christian reality, and contrast the reality created therein with other realities, such as Hinduism, Buddhism, Confucianism, and Islam. Only one of the following may be counted: Humanities 350 (Topic: In Search of Meaning), 350 (Topic: The Quest for Meaning), 350 (Topic 6), Liberal Arts Honors 350 (Topic: In Search of Meaning), 350 (Topic 10). Additional prerequisite: Upper-division standing and a University grade point average of at least 3.50.

##### **Topic 7: The Enlightenment.**

**Topic 8: Sites, Structures, and Images of Italy.** Examination of the historical factors of religion, politics, economics, and local culture that define the significance of selected late medieval and Renaissance (twelfth through fifteenth century) buildings and the visual art they formerly housed and displayed. Taught in Italy. Additional prerequisite: Upper-division standing and consent of instructor.

**Topic 10: Literature of World War I.** Same as Liberal Arts Honors 350 (Topic 4). Selected readings from autobiographies, poetry, fiction, and memoirs, primarily about the Western Front, by German, British, and American authors; a short history of World War I; readings of a central book of literary analysis; exploration of the nature of war, the experience of combatants, and the legacy of the war itself and its unique literature. Only one of the following may be counted: Humanities 350 (Topic: Literature of the Great War), 350 (Topic 10), Liberal Arts Honors 350 (Topic: Literature of the Great War), 350 (Topic 4).

**Topic 13: Treasure Hunt Archival Research.** Same as Liberal Arts Honors 350 (Topic 28). Discover, explore and identify the boundless treasures that can be found on the University of Texas Austin campus as you hunt through the vast cultural and historical collections at the archives on campus including the Harry Ransom Center, the Dolph Briscoe Center for American History, and the LLILAS Benson Latin American Collection. Explore essential skills for pursuing original research projects in humanities disciplines and apply these skills to bring public attention to hidden histories and marginalized voices in American culture. Only one of the following may be counted: Humanities 350 (Topic: Treasure Hunt HRC Arch Rsch), 350 (Topic 13),

Liberal Arts Honors 350 (Topic: Treasure Hunt HRC Arch Rsch), 350 (Topic 28).

### **HMN 351C. The Johnson Years.**

Same as Liberal Arts Honors 350 (Topic 18). Restricted to Plan I majors in the College of Liberal Arts. Three lecture hours a week for one semester. Only one of the following may be counted: Humanities 350 (Topic: Johnson Years), 351C, Liberal Arts Honors 350 (Topic: Johnson Years), 350 (Topic 18). Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **HMN 358Q. Supervised Research.**

Individual instruction. May be repeated for credit. Prerequisite: Consent of the humanities adviser.

### **HMN 370. Senior Tutorial Course.**

A tutorial program of supervised reading and writing, including an individual paper or papers in which the student draws together the central directions and discoveries of his or her studies in the humanities. Three lecture hours a week for one semester. Humanities 370 and 679HB may not both be counted. Prerequisite: Consent of the humanities adviser.

### **HMN 379. Conference Course.**

Individual instruction in a topic approved by the instructor and the humanities adviser. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of the humanities adviser.

### **HMN 679H. Honors Tutorial Course.**

Directed reading and research, followed by the writing of a report or the creation of a project. Conference course for two semesters. Humanities 370 and 679HB may not both be counted. Prerequisite: For 679HA, admission to the Humanities Honors Program and consent of the humanities adviser; for 679HB, Humanities 679HA.

## **Graduate Courses**

## **Professional Courses**

# **Humanities, Health, and Medicine Courses**

## **Humanities, Health, and Medicine: HHM**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **HHM 380. Introduction to Humanities, Health, and Medicine.**

Survey the history, aims, and challenges of the field of humanities, health, and medicine, as well as the field's current role in health-professional education and practice. Explore subfields within the health humanities such as the history of medicine, narrative medicine, literature and medicine, medical anthropology, disability studies, medicine and the arts, and bioethics. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **HHM 383. Topics in Theories and Methods.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate advisor.

#### **HHM 385. Topics in Humanities, Health, and Medicine.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate advisor.

#### **HHM 386. Conference Course.**

Independent study on a subject relevant to the field of humanities, health, and medicine. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of the graduate advisor.

#### **HHM 387. Internship.**

The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate advisor.

#### **HHM 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing, consent of the graduate advisor, and consent of instructor; for 698B, Humanities, Health, and Medicine 698A.

#### **HHM 398R. Master's Report.**

The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, consent of the graduate advisor, and consent of instructor.

## **Professional Courses**

# **Iberian and Latin American Languages and Cultures Courses**

## **Iberian and Latin American Languages and Cultures: ILA**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **ILA 380. Introduction to Theory and Research of Literature and Culture.**

An introductory survey of theories, research methods, and issues of professionalization relevant to the study of Latin American and Iberian literatures and cultures. Designed to be taken in the first long semester of graduate study. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate advisor.

#### **ILA 381. Introduction to Theory and Research of Linguistics.**

An introduction to the prevalent theories, research methods, and issues of professionalization relevant to the study of the language forms and language practices of individuals and societies. Designed to be taken in the first long semester of graduate study. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate advisor.

#### **ILA 383. Creative Writing in Spanish.**

Explore the creative process of writing in different genres including non-fiction, fiction, and poetry. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of graduate advisor.

### **ILA 383L. Conference Course.**

Conference course. May be repeated for credit. Prerequisite: Graduate standing and written consent of the graduate adviser.

### **ILA 385T. Teaching Practicum.**

Mentorship and pedagogical training by working one-on-one with a faculty member on the development and design of an undergraduate, upper-division level course in their area of specialization. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; Iberian and Latin American Languages and Cultures 398T; admission to candidacy for the doctoral degree, including an approved dissertation proposal; and consent of the graduate adviser.

### **ILA 386. Topics in Iberian and Latin American Linguistics.**

Topics in Iberian and Latin American linguistics, including diasporic and indigenous communities. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **ILA 387. Topics in Iberian and Latin American Literatures and Cultures: Spanish.**

Topics in the literatures and cultures of Spanish America, Spain, and related diasporas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **ILA 388. Topics in Iberian and Latin American Literatures and Cultures: Portuguese.**

Topics in the literatures and cultures of Brazil, Portugal, and related diasporas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **ILA 389. Topics in Iberian and Latin American Literatures and Cultures: Spanish and Portuguese.**

Comparative topics in the literatures and cultures of Brazil, Spanish America, the Iberian Peninsula, and related diasporas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **ILA 394. Supervised Preparation of the Qualifying Paper.**

Supervised preparation for the doctoral degree qualifying paper. Designed to be taken in the same semester the student submits the paper. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **ILA 395. Supervised Preparation of the Dissertation Fields.**

Preparation of field lists, and critical summaries of these lists, under faculty supervision. Prepares students for Iberian and Latin American Languages and Cultures 396. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **ILA 396. Supervised Preparation of the Dissertation Proposal.**

Supervised preparation for the dissertation proposal for the doctoral degree. Designed to be taken in the same semester the student submits the proposal, typically the sixth or seventh long semester of study. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only.

Prerequisite: Iberian and Latin American Languages and Cultures 395, and consent of instructor and the graduate adviser.

### **ILA 398R. Master's Report.**

Preparation of the report required to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **ILA 398T. Supervised Teaching in Spanish and Portuguese.**

Required for teaching assistants during their first semester that they teach. Fundamentals of foreign language teaching methodology, with particular reference to the teaching of Spanish and Portuguese. Presentation of theoretical concepts on which classroom practice is based, in conjunction with teaching under close supervision of the course instructor, individual consultations, reading assignments, and reports. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, appointment as a teaching assistant, and consent of instructor and the graduate adviser.

### **ILA 399W, 699W, 999W. Dissertation.**

Supervised writing of the dissertation for the doctoral degree. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Identity Management and Security Courses**

## **Identity Management and Security: IMS**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **IMS 380. Introduction to Identity Management, Security, and Privacy.**

Restricted to students enrolled in the Master of Science in Identity Management and Security program. An introductory overview of identity management and security, presenting working definitions and models of Personal Identifiable Information (PII), identity theft, and fraud. As well as security challenges, best practices, and solutions for identity management, security, and privacy across different market sectors. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **IMS 381. Identity in Society and Community.**

Restricted to students in the Master of Science in Identity Management and Security program. Examination of how identity is socially and culturally variable and fluid, changing throughout history and differing from place to place. Subjects include anthropological study of identity; societal norms; and individual, device, communal, and organizational identities. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **IMS 382. Identity and Public Policy.**

Restricted to students in the Master of Science in Identity Management and Security program. Overview of how identity and public policy relate to each other. Examines key identity policy areas including privacy, surveillance, identity theft, health information, business-to-business relationships, and the co-evolution of identity and information

technologies. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **IMS 383. Identity Business Practices and Governance.**

Restricted to students in the Master of Science in Identity Management and Security program. Organizational perspective on the management and governance of identity assets. Examines business practices and governance mechanisms for minimizing risks and maximizing returns of identity assets. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **IMS 384. Identity Communication.**

Restricted to students in the Master of Science in Identity Management and Security program. Framing messages and the impact on identity and privacy; effective crisis management communications; communication and business continuity planning; time management; sense making processes in organizational crisis; and reputation management. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **IMS 385. Identity Risk and Benefit Analysis.**

Restricted to students in the Master of Science in Identity Management and Security program. Overview and evaluation of risks and benefits related to identity information in multiple sectors including financial services, healthcare, consumer services, government, education, and energy. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **IMS 385T. Special Topics in Identity Management and Security.**

Restricted to students in the Master of Science in Identity Management and Security program. Study of the characteristics of identity information and the technologies, actors, and questions involved in managing, protecting, and securing identity information. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **IMS 386. Identity Security.**

Restricted to students in the Master of Science in Identity Management and Security program. Identity enrollment and authentication for cyber and physical access and transactions, cryptography, biometrics, device identity security, and security culture. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **IMS 387. Identity Information Management and Repositories.**

Restricted to students in the Master of Science in Identity Management and Security program. Knowledge and data management, storage, and mining. Examines data breaches and information representation and algorithms. Attention to information management applications in all market sectors for enrollment, authentication, fraud detection, and fraud prevention. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **IMS 388. Identity and Law.**

Restricted to students in the Master of Science in Identity Management and Security program. Identity-related laws and other policy instruments, different classes of protected personal information, and multiple genres of legal information and legal writing. Legal requirements and social responsibilities as they pertain to data protection and the prevention of different types of identity theft crimes. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **IMS 388L. Professional Experience and Project.**

Restricted to identity management and security majors. Study of a practical problem, current phenomenon, or professional issue in an

institutional setting. Conference course. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and completion of at least twenty-four semester hours of coursework in the graduate program in Identity Management and Security option III program.

### **IMS 189, 289, 389. Individual Studies.**

Restricted to identity management and security majors. In-depth study of a problem or topic related to Identity Management and Security. Individual Instruction. May be repeated for credit. Prerequisite: Graduate standing, consent of instructor, and consent of graduate adviser.

### **IMS 398R. Master's Report.**

Restricted to students in the Master of Science in Identity Management and Security program. Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of graduate adviser.

## **Professional Courses**

# **Indigenous Languages of Latin America Courses**

## **Indigenous Languages of Latin America: LAL Lower-Division Courses**

### **LAL 601C. Intensive Indigenous Language of Latin America I.**

Introduction to an indigenous language of Latin America. Designed to provide students with the basics of grammar and vocabulary; the ability to engage in simple, colloquial conversation; and basic writing skills as foundation for further study. The equivalent of six lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **LAL 611C. Intensive Indigenous Language of Latin America II.**

Continuation in the study of an indigenous language of Latin America. Designed to introduce students to advanced subjects in grammar and vocabulary and develop advanced conversation, reading, and writing skills as a foundation for further study. The equivalent of six lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Indigenous Languages of Latin America 601C with a grade of at least C.

## **Upper-Division Courses**

### **LAL 321. Third-Year Indigenous Language of Latin America I.**

Advanced study of an indigenous language of Latin America, with an emphasis on advanced conversation and reading skills. Particular attention is given to cultural issues and discussion in the target language. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Indigenous Languages of Latin America 611C with a grade of at least C.

### **LAL 322. Third-Year Indigenous Language II.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Indigenous Languages of Latin America 321.

### **LAL 330. Topics in Language, Culture, and Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Indigenous Languages of Latin America 611C.

## **Graduate Courses**

### **LAL 385K. Intensive Graduate Language Instruction I.**

Intensive cultural and literacy-focused training in an indigenous language at the beginning level in preparation for research. Six lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of graduate adviser.

### **LAL 385L. Intensive Graduate Language Instruction II.**

Intensive cultural and literacy-focused training in an indigenous language at the intermediate level in preparation for research. Six lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Indigenous Languages of Latin America 385K and consent of graduate adviser.

### **LAL 385M. Intensive Graduate Language Instruction III.**

Intensive cultural and literacy-focused training in an indigenous language at the intermediate/advanced level in preparation for research. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Indigenous Languages of Latin America 385L and consent of graduate adviser.

## **Professional Courses**

# **Informatics Courses**

## **Informatics: I**

### **Lower-Division Courses**

#### **I 301. Introduction to Informatics.**

Introduction to the field of informatics, including cultural heritage informatics, health informatics, human-centered data science, social informatics, social justice informatics, and user experience design. Three lecture hours a week for one semester. Informatics 301 and Information Studies 304D may not both be counted.

#### **I 302. Academic Success in the Digital University.**

Examine a wide variety of information and academic resources, tools, and skills; with a focus on the digital landscape of higher education. Explore the features of the primary learning management system; communication and organization tools; library resources; basic online research resources; and ethical and safety concerns. Three lecture hours a week for one semester. Informatics 302 and Information Studies 303D may not both be counted.

#### **I 303. Ethical Foundations for Informatics.**

Survey the ethical foundations for informatics, incorporating non-Western and feminist perspectives. Apply these ethical foundations to contemporary problems in informatics. Examine the confrontation of ethical dilemmas in the workplace, including recognizing value trade-offs, affected stakeholders, and potential solutions. Three lecture hours a week for one semester.

#### **I 304. Programming for Informatics.**

Restricted to Informatics majors. Examine the fundamentals of computer programming and practice developing and documenting code. Three lecture hours a week for one semester.

### **I 310. Topics in Introductory Informatics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Prerequisites may vary with the topic.

#### **I 310C. Introduction to Cultural Heritage Informatics.**

Examine the fundamentals of managing, describing, organizing, preserving, and providing access to data and information in a wide range of technological forms. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Informatics 301.

#### **I 310D. Introduction to Human-Centered Data Science.**

Examine the fundamentals of collecting, managing, and analyzing data; with consideration for the ethical responsibility of data science and the importance of critical thinking. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Informatics 301.

#### **I 310J. Introduction to Social Justice Informatics.**

Explore the leveraging of data, information, and technology for the greater benefit of society and to help ensure a level playing field for everyone in the information age. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Informatics 301.

#### **I 310M. Introduction to Health Informatics.**

Explore designing and implementing information technologies to improve healthcare delivery, healthcare management, and health outcomes. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Informatics 301.

#### **I 310S. Introduction to Social Informatics.**

Explore the leveraging of data, information, and technology to improve the efficiency and effectiveness of organizations while also providing a more ethical and humane environment for workers. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Informatics 301.

#### **I 310U. Introduction to User Experience Design.**

Introduction to user experience, human-computer interaction, and the human-centered design of interfaces and applications for mobile devices and the web. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Informatics 301.

#### **I 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Informatics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **I 320. Topics in Informatics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Information in Cyberspace.** Explore the history and social impact of internet, web, and other network technologies. Examine the methods and tools for media creation with an emphasis on technological self-sufficiency. Informatics 320 (Topic 1) and Information Studies 335C may not both be counted.

**Topic 2: Children's Literature.** Explore the evaluation, selection, and proper and creative use of books and other media with children. Informatics 320 (Topic 2) and Information Studies 322T may not both be counted.

**Topic 3: Comics, Graphic Novels, and Manga.** Examine the historical development and a contemporary survey of prominent visual narrative formats and genres such as graphic and visual novels, comics, and manga. Informatics 320 (Topic 3) and Information Studies 327E (Topic 2) may not both be counted.

### **I 320C. Topics in Cultural Heritage Informatics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Informatics 310C. Additional prerequisites may vary with the topic.

### **I 320D. Topics in Human-Centered Data Science.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Informatics 310D. Additional prerequisites may vary with the topic.

### **I 320J. Topics in Social Justice Informatics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Informatics 310J. Additional prerequisites may vary with the topic.

### **I 320M. Topics in Health Informatics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Informatics 310M. Additional prerequisites may vary with the topic.

### **I 320S. Topics in Social Informatics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Informatics 310S. Additional prerequisites may vary with the topic.

### **I 320U. Topics in User Experience Design.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Informatics 310U. Additional prerequisites may vary with the topic.

### **I 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Informatics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **I 372. Career Success in the Digital Organization.**

Examine the essential skills for obtaining a job and sustaining a successful career with an emphasis on integrity, teamwork, time management, responsiveness to feedback, and written and oral communication. Explore tools for computer-supported cooperative work that facilitate online collaboration. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **I 178I, 278I, 378I. Independent Study.**

Restricted to informatics majors. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Individual Instruction. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **I 178R, 278R, 378R. Research Experience.**

For each semester hour of credit earned, the equivalent of one lecture hours a week for one semester. Individual instruction. May be repeated

for credit. Prerequisite: Upper-division standing and consent of instructor.

### **I 379C. Capstone.**

Restricted to informatics majors. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing and a minimum of 105 hours of coursework.

### **I 679H. Honors Thesis.**

Restricted to Informatics majors. Research, read, and develop an honors thesis subject and proposal for one semester; followed in the second semester by the writing and defense of a final honors thesis. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679HA, upper-division standing, a minimum of 90 hours of coursework, and consent of instructor; for 679HB Informatics 679HA.

## **Graduate Courses**

### **Professional Courses**

## **Information Security and Privacy Courses**

### **Information Security and Privacy: ISP**

#### **Lower-Division Courses**

#### **Upper-Division Courses**

#### **Graduate Courses**

#### **ISP 380. Introduction to Information Security and Privacy.**

Restricted to information security and privacy majors. Explore foundational concepts of information security and privacy, including information value, classifications, threats, liabilities and risk management, identity and access controls (IAM), trust frameworks, technology for network, web, software and cloud security; and privacy laws and regulations. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **ISP 381. Information and Privacy in Society.**

Restricted to information security and privacy majors. Examine how information is socially and culturally variable and fluid, changing throughout history and differing from place to place. Explore the anthropological study of information; societal norms; and individual, device, communal, and organizational information strategies. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **ISP 382. Public Policy, Information Security, and Privacy.**

Restricted to information security and privacy majors. Explore an overview of how information and public policy relate to each other. Examine key information policy areas including privacy, surveillance, theft, health information, business-to-business relationships, and the co-evolution of personal data and information technologies. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **ISP 383. Business Governance and Controls for Information Security and Privacy.**

Restricted to information security and privacy majors. Explore an organizational perspective on the management and governance of information. Examine business practices and governance mechanisms for minimizing risks and maximizing returns of information. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ISP 384. Strategic Communication for Information Security and Privacy.**

Restricted to information security and privacy majors. Explore framing messages and the impact on people, organizations, risks and privacy; effective crisis management communications; communication and business continuity planning; time management; sense making processes in organizational crisis; and reputation management. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ISP 385. Information Risk and Benefit Analysis.**

Restricted to information security and privacy majors. Explore and evaluate the risks and benefits related to information in multiple sectors including financial services, healthcare, consumer services, government, education, and energy. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ISP 385T. Topics in Information Security and Privacy.**

Restricted to information security and privacy majors. Study the characteristics of information and the technologies, stakeholders, and questions involved in managing, protecting, and securing information. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ISP 386. Information Security.**

Restricted to information security and privacy majors. Explore the enrollment and authentication for cyber and physical access and transactions, cryptography, biometrics, device identity security, and security culture. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ISP 387. Information Management and Repositories.**

Restricted to information security and privacy majors. Explore knowledge and data management, storage, and mining. Examine information representation and algorithms. Discuss information security and privacy applications in all market sectors for enrollment, authentication, operational use, fraud detection, and fraud prevention. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ISP 388. Law Governing Information Security and Privacy.**

Restricted to information security and privacy majors. Examine laws and other policy instruments related to information security and privacy, different classes of protected personal information, and multiple genres of legal information and legal writing. Explore legal requirements and social responsibilities as they pertain to data protection and the prevention of different types of fraud and information crimes. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ISP 388L. Professional Experience and Project.**

Restricted to information security and privacy majors. Study practical problems, current phenomenon, or professional issues in an institutional setting. The equivalent of three lecture hours a week for one semester. Conference course. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and twelve semester hours of information security and privacy coursework.

### **ISP 189, 289, 389. Individual Studies.**

Restricted to information security and privacy majors. In-depth study of a problem or subject related to information security and privacy. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Individual Instruction. May be repeated for credit.

Prerequisite: Graduate standing, consent of instructor, and consent of the graduate advisor.

### **ISP 398R. Master's Report.**

Restricted to information security and privacy majors. Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of graduate adviser.

## **Professional Courses**

# **Information Studies Courses**

## **Information Studies: INF**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **INF 380C. Information in Social and Cultural Context.**

Examines the role of information in human activities, particularly in relation to particular social and cultural contexts. Examines how individuals, groups, organizations, institutions, and society at large create, find, use, understand, share, transform, and curate information. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **INF 380D. Designing Dynamic Web Pages.**

Principles and practices for designing, developing, and evaluating interactive desktop and mobile Web pages. Theories and models for color, styles, and interactive page elements, such as forms. Students create and evaluate Web pages using current technologies, such as XHTML/HTML5, CSS, JavaScript, AJAX, and Adobe Flash. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **INF 380E. Perspectives on Information.**

Multidisciplinary and historical examination of concepts of information. Contrasts key literature from information studies with perspectives from other fields. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **INF 380K. Internet Applications.**

Introduction to Internet concepts, protocols, applications, and services. Examines the impact of policy and management decisions on current and future developments, and studies the design and implementation of Internet applications, including HTML, CSS, and related tools. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **INF 380P. Introduction to Programming.**

Restricted to students in the School of Information Studies. Introduction to common concepts and constructs of modern computer programming such as classes and objects, methods, inheritance, data types, variables, operators, procedures, and code libraries. Development of programmatic solutions to specific computing problems and design applications for modern computing platforms such as desktop, tablet, mobile, and the World Wide Web. Intended for students with no significant prior programming experience. Three lecture hours a week for one semester. Only one of the following may be counted: Information Studies 380P, 383P, 385T (Topic: Introduction to Programming). Prerequisite: Graduate standing and consent of instructor.

#### **INF 181, 281, 381. Individual Studies.**

In-depth study of a problem or topic related to information studies, usually culminating in an examination or a scholarly written report.

Individual instruction. With consent of the graduate adviser, may be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **INF 181E. Electronic Portfolio.**

Creation of a Web site that displays the student's professional aims, interests, and pursuits, including resume and work samples. Designed to be taken during the final semester of the Master of Science in Information Studies degree program. Individual instruction. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and concurrent enrollment in one of the following: Information Studies 388L, 388R, 698B, 398R.

### **INF 381W. Advanced Problems in Information Studies.**

Study of a problem or topic related to information studies. Offered as an online course. The equivalent of three lecture hours a week for one semester. With consent of graduate adviser, may be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **INF 382C. Understanding and Serving Users.**

Overview of human-computer interaction, understanding client groups, information filters, information literacy and information-seeking behavior, as well as user studies and usability testing. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 382D. Introduction to Information Resources and Services.**

Major reference resources and strategies useful in providing information services in libraries and other information agencies. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 382G. Information Resources and Services for Children and Young Adults.**

Examines the evaluation, selection, and use of books and other media for young adults of junior and senior high school age. Briefly surveys the reading experience, psychology of adolescence, and reading interests of young adults. Includes extensive reading and viewing. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; prerequisites may vary with the topic.

**Topic 3: Materials for Children and Young Adults.** Explore the evaluation, selection, and use of books and other media and materials to meet the needs of children and young adults.

### **INF 382H. Legal Information Resources.**

Identification of relevant legal information resources, efficient retrieval of legal information, and the role of technology in legal information access. Three lecture hours a week for one semester. Information Studies 382H and 382L (Topic: Legal Information Resources) may not both be counted. Prerequisite: Graduate standing.

### **INF 382K. Information Resources in the Health Sciences.**

Evaluation of conventional and online health information resources used by consumers and health care professionals for health promotion and disease and disorder prevention, diagnosis, treatment, and management. Includes traditional and alternative approaches, genetic clinical information approaches, and evidence-based approaches to the use of resources. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 382L. Information Resources and Services.**

Evaluation and use of printed online information resources and services in specialized areas, with emphasis on new information technologies.

Information-seeking behavior of users, document delivery, new roles of the information specialist in user support, and information needs of a variety of clients. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; prerequisites may vary with the topic.

**Topic 3: Inquiry and Information Seeking in K-12.** Examine inquiry models and information-seeking theories relevant to K-12 teaching and learning. Explore tools and resources for student learning and strategies for teaching specific information literacy skills within the context of an inquiry process and varying subject areas.

### **INF 382N. Information Resources in Business.**

Communication patterns, bibliographic organization, and information resources in business and industry. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 382P. Competitive Intelligence Resources and Strategies.**

Resources and strategies for market and competitive analysis. Research and analysis of market trends and financial, technical, and cultural strengths and weaknesses of companies. Online, print, and primary research and analytical techniques. Ethics, process, and presentation are emphasized. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 382R. Introduction to Scientific Data Informatics.**

Introduction to the characteristics of scientific data and the emerging practices applied toward their management and preservation. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 382S. Library Instruction and Information Literacy.**

History of instruction in information service settings; learning theory, including learning styles; professional organizations involved in supporting instruction; instructional delivery modes and materials; and evaluation. Three lecture hours a week for one semester. Prerequisite: Graduate standing. Information Studies 382D is strongly recommended.

### **INF 382T. Information Services: Theory, Techniques, and Subject Areas.**

Exploration of reference services; and evaluation and use of printed and online information resources and services, with emphasis on interpersonal communication and new information technologies. Information needs and information-seeking behavior of users; and new roles of the information specialist in user services. Includes information resources and services in the humanities and social sciences. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 382U. Digital Resources for Children and Youth Seminar.**

Exploration of digital information resources available for children and youth, including the range of content and availability, how information resources are conceived and created, and the implications of these resources for school and public libraries. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 382V. Visual Resources for Youth Seminar.**

The history and selection criteria of the Caldecott Award; the history of picture books and publishing; academic and professional literature about children's materials; and selection criteria for picture books, including evaluating children's literature and developing the tools to analyze picture books for narrative, artistic, and compositional elements. Illustrative techniques and their effectiveness in relation to particular texts. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 383D. Mathematical Foundations of Information Studies.**

Introduction to traditional finite mathematical concepts, including probability distributions and models, linear equations, matrix algebra, linear statistical models, basic information theory, and the use of mathematical and statistical software for modeling and data analysis. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 383E. Interpreting Implicit Information on the Web.**

Theories and methods of Internet language and image interpretation. Examines persuasion, group and individual identity projection, and group-value demonstration. Focuses on how discourse is shaped by ideology, social forces, and the knowledge and beliefs of its producers within several information contexts, such as online communities, education, science, and healthcare. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 383H. Introduction to Digital Humanities.**

A hands-on introduction to guiding infrastructural and institutional developments involved in digital scholarship. Areas of focus include archives, collection, and scholarly editions; data curation; funding; text encoding; tool building; scholarly publishing; and visualization. Three lecture hours a week for one semester. Information Studies 383H and 385T (Topic: Introduction to Digital Humanities) may not both be counted. Prerequisite: Graduate Standing.

**INF 383S. Library Information Science, Espionage, and Intelligence Gathering.**

Examines the historical and conceptual linkages between the field of library information science and the practices of intelligence gathering and espionage. Explores the role and structure of the intelligence community, the similarities and contrasts between intelligence practitioners and other information professionals, and historical case studies that illuminate areas of overlap and cooperation between the disciplines. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 384C. Organizing Information.**

Introduction to the concepts of information organization, representation, and classification. Consideration of different traditions of practice and user concerns. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 384D. Collection Management.**

Philosophical and social context, objectives, and methodology of evaluating, selecting, and managing library materials. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 384F. Seminar in Information Organization.**

Critical, in-depth examination of significant concepts in information organization. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 384H. Concepts of Information Retrieval.**

The science and engineering of building automated search engines: foundations and emerging methods, key models and approaches, front-end usability and back-end algorithms, theories of relevance, annotation practices, and system evaluation/benchmarking. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 384M. Topics in Description and Metadata.**

Principles and practices for describing information resources. Three lecture hours a week for one semester. May be repeated for credit when

the topics vary. Prerequisite: Graduate standing; prerequisites may vary with the topic.

**INF 384R. Digital Repositories.**

Introduction to issues in selecting, managing, and using digital repositories in diverse institutional settings. Covers repository models, collections, metadata, interoperability, preservation, policies, work flows, interfaces, visualization, applications, and services. Includes working with different repository software. Examines the impact of repositories on institutional culture, work practices, and publication models. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 384W. Descriptive Cataloging and Metadata.**

Standards, rules, and metadata formats for representing information entities in library catalogs and other bibliographic systems. Emphasis on the Anglo-American Cataloguing Rules and the MARC metadata format. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 385C. Human-Computer Interaction.**

The history and importance of human-computer interaction (HCI), theories of HCI design, modeling of computer users and interfaces, empirical techniques for analyzing systems and interfaces, interface design, and styles of interaction. Emphasis on reviewing research papers, current works, and future directions in HCI research. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 385E. Information Architecture and Design.**

The theory and design of information architecture: models that provide structure and context for information to shape meaning, purpose, and utility toward understanding. Students present theoretical reviews; map and design; and develop novel information architectures using a variety of methods and software applications. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 385G. Advanced Usability.**

Designed to build upon the skills covered in Information Studies 385P. Individual project evaluating a Web site or other software user interface. Students devise a plan for testing, secure IRB approval to test human subjects, conduct study, analyze data, write a report, and present the results and conclusions. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Information Studies 385P.

**INF 385H. Digital Media Design.**

Design and production of graphic, audio, video, and multimedia materials, with emphasis on aesthetics and usability. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 385K. Projects in Human-Computer Interaction.**

Projects based on theories of human-computer interaction design, modeling of computer users and interfaces, empirical techniques for analyzing systems and interfaces, interface design, and styles of interaction. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**INF 385L. Information Networks.**

History, design, and use of digital information networks. Emphasis on origins of the Internet in the United States, varied technical models for networked information services, and social analysis of networked communication from multiple disciplinary perspectives. Includes close review of classic papers in networked communication as well as current works. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 385M. Database Management.**

Principles and practices of database management and database design. Discussion and implementation of a database. Application life cycle, data dictionaries, relational database design, SQL queries, reports and other interfaces to database data, and documentation. Students work on individual and group projects. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 385N. Informatics.**

Investigation of informatics movements around the world and in various disciplines and professions, such as biomedicine, nursing, public health, education, business, law, and public affairs. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **INF 385P. Usability.**

The basics of user-centered design through the lifecycle of a software product. Includes perceptual, psychological, and other scientific underpinnings of usability and the justification for the application of usability engineering in software development. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 385Q. Knowledge Management Systems.**

Survey of knowledge management systems that enable the access and coordination of knowledge assets, including intranets, groupware, Weblogs, instant messaging, content management systems, and e-mail in both individual and organizational contexts. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 385R. Survey of Digitization.**

Introduction to the issues and trends in digital asset management and digitization initiatives, including planning and project management, asset delivery and management systems, interoperability and the importance of standards, copyright, metadata basics, digital preservation, and specific digitization processes for documents, images, video, and sound. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 385S. Digital Libraries.**

Research, development, and evaluation issues related to digital collections of documents, data, and multimedia formats, including metadata and interoperability; access strategies and user interfaces; implications for policies and social issues; collection development with physical as well as digital materials. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 385T. Special Topics in Information Science.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites may vary with the topic.

**Topic 1: Presenting Information.** Visual, numerical, textual, and verbal presentation of information based on fundamental theories of human information perception and communication. Examples may include tables, graphs, dashboards, infographics, and reports. Information Studies 385T (Topic: Presenting Information) and 385T (Topic 1) may not both be counted.

**Topic 2: Visualization.** Concepts, principles, strategies, techniques, and tools for the visual presentation of large, high-density, or complex information resources from a variety of disciplines such as the sciences, humanities, law, arts, and business. Information Studies 385T (Topic: Visualization) and 385T (Topic 2) may not both be counted.

**Topic 3: Human Computation and Crowdsourcing.** Introduction to the theory, methods, and applications of human computation and

crowdsourcing; covering a breadth of key concepts as well as more specialized depth in one or more key sub-areas. Information Studies 385T (Topic: Human Computation and Crowdsourcing) and 385T (Topic 3) may not both be counted.

**Topic 4: Mobile Interaction Design.** Introduction to the design of mobile interactions with emphasis on research and analysis, conceptual design, mobile interface prototyping, and the basics of interface evaluation and usability testing. Only one of the following may be counted: Information Studies 385C, 385T (Topic: Mobile Interaction Design), 385T (Topic 4).

**Topic 5: Data Mining.** A hands-on introductory overview of the applications, methods, tools, and technologies that constitute data science and data mining. Fundamentals of Python and R programming languages and relevant libraries. A semester project applying the learned methods and technologies to a specific dataset. Three lecture hours for one semester. Information Studies 385T (Topic: Data Mining) and 385T (Topic 5) may not both be counted.

**Topic 6: Information Modeling.** An introduction to fundamental information modeling methods such as relational database design, conceptual modeling, markup systems, and ontologies. Information 385T (Topic: Information Modeling) and 385T (Topic 6) may not both be counted.

**Topic 7: Information Science in the Intelligence Community.** Introduction to the U.S. Intelligence Community (IC) and the world of espionage from a Library and Information Science perspective: how intelligence agencies collect, manage, and analyze data and information to produce actionable insights for policymakers. Information 385T (Topic: Intelligence Gathering) and 385T (Topic 7) may not both be counted.

**Topic 8: Information Ethics.** Examination of contemporary information ethics issues applying a variety of ethical theories, including non-Western and feminist theories. Information 385T (Topic: Information Ethics) and 385T (Topic 8) may not both be counted.

**Topic 9: Data Wrangling.** An introduction to working with data - reading a variety of formats, designing a database schema, and introductory programming skills for inserting, querying, and transforming of data. Information 385T (Topic: Data Wrangling Excel SQL Beyond) and 385T (Topic 9) may not both be counted.

**Topic 10: Interaction Design.** Introduction to the design and production of useful and elegant interactive experiences, including iterative design, prototyping, and user testing. Information Studies 385T (Topic: Interaction Design) and 385T (Topic 10) may not both be counted.

**Topic 11: Crowdsourcing for Computer Vision.** Examine the opportunities and challenges for using crowdsourcing to teach computers to "see". Information Studies 385T (Topic: Crowdsourcing CPU Vision) and 385T (Topic 11) may not both be counted.

### **INF 385U. Digital Media Collections.**

Collection design, resource selection, description and organization, development of user access mechanisms. May include collection considerations in regards to various media, workflow and project management, audience analysis, and notions of authorship in the collection context. Three lecture hours a week for one semester. Information Studies 385T (Topic: Creating and Using Digital Media Collections) and 385U may not both be counted. Prerequisite: Graduate standing.

### **INF 385V. Health Informatics.**

Introduction to health informatics; includes fundamentals of information in biomedicine, nursing, public health, bioinformatics and genomics, electronic records, and integrated systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 385W. Security Informatics.**

Explores information, computer, and network security in several contexts. Examines business impacts of security, societal implications of the protection of information resources, and technical aspects of securing information technology systems and data. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 386. History of Information and Society.**

Topics on the histories of information; libraries; archives; information science, technology, and businesses; conservation; and museums. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; prerequisites may vary with the topic.

### **INF 386C. Archives, Records, and Preservation in the Modern World.**

Progress of archival enterprise, records management, and preservation administration from the Renaissance to the present. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 386E. Information and Culture.**

Examines information as a cultural phenomenon; may include e-commerce, privacy and secrecy, censorship, information as a commodity, Internet culture, access to cultural heritage, and control of the cultural record. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; prerequisites may vary with the topic.

### **INF 386G. Gender, Technology, and Information.**

Definitions of and metaphors for technologies; in-depth analysis of feminism and science and technologies studies, masculinities and technologies, women's underrepresentation in technology, reproductive and sexual technologies, domestic technologies, design and architecture, book clubs and reading, and gender and (information) articulation work. Three lecture hours a week for one semester. Information Studies 386G and Women's and Gender Studies 393 (Topic: Gender, Technology, and Information) may not both be counted. Prerequisite: Graduate standing.

### **INF 386H. Theory and Methods of Oral History.**

Theories of oral history; practical methods for producing, recording, annotating, and searching oral and video histories; archival issues related to documentation of oral histories; use of oral histories in various scholarly fields. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 387. Administration.**

Theory and practice in the design, behavior, evaluation, and administration of libraries and other information agencies and systems. Marketing of information organizations and resources. Administrative applications of technology. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; prerequisites may vary with the topic.

**Topic 5: School Library Management I.** Designed for students pursuing Texas Education Agency (TEA) certification in school librarianship. Examine the philosophy, objectives, and management of the school library with an emphasis on standards and competencies, and the roles of the school librarian as collection curator, literacy leader, and program administrator. Information Studies 387 (Topic 5) and Information Studies 388C may not both be counted. Additional prerequisite: Consent of the department.

**Topic 6: School Library Management II.** Designed for students pursuing Texas Education Agency (TEA) certification in school librarianship. Examine the philosophy, objectives, and management of the school library with an emphasis on the roles of the school librarian

as an instructional partner and information specialist. Information Studies 387 (Topic 6) and Information Studies 388C may not both be counted. Additional prerequisite: Information Studies 387 (Topic 5) and consent of the department.

### **INF 387C. Managing Information Organizations.**

Management theory, concepts, processes, and practices as applied to information agencies and systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 387E. Evaluating Information Programs.**

Use of evaluation in support of decision making, setting priorities, allocating scarce resources, and improving programs. Students study how to conceptualize, design, implement, and report on evaluation in the context of working with a local client. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 387M. Information Marketing.**

Examines the marketing of information agencies, systems, services, publications, and software and hardware products to consumers. Includes marketing research, planning, user studies, product development, communication, pricing and distribution for profit and nonprofit organizations. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 387T. Information Technology and Work.**

Examines the role information technology plays in modern work. Case studies of historical and modern examples of technology implementation and work transformation. Includes qualitative techniques, such as interviewing and observing, for data collection; data analysis; and presentation of data. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 388D. Planning and Management of Programs for Children and Young Adults.**

Designing and planning effective services and programs for children and young adults: technologies, information need analysis, and trends. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 388E. Historical Museums: Context and Practice.**

The process of exhibit creation in historical museums, from planning through development to opening and maintenance, as a negotiation among stakeholders for influence on the story that is told. Students visit local historical museums and examine how presentations are influenced by the institutional position of the museum, including its history and resources; the concerns of museum employees; the influence of the audience and of those who are directly affected or represented by an exhibit; and the role of contractual professionals. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **INF 388K. Organizational Environments.**

Mission, goals, and objectives of specific information settings. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; prerequisites may vary with the topic.

**Topic 1: Public Libraries.** History, missions, values, governance, funding, services, user communities, architecture, leadership, and issues in public librarianship.

**Topic 2: Academic Libraries.** The relationship of academic library management to trends in postsecondary education, to the institution the library serves, and to the research community at large.

**Topic 3: Special Libraries.** Development and management of special libraries and information centers.

**Topic 5: Rare Book and Special Collections.** Administration of rare book and manuscript collections. Introduction to analytical bibliography.

**Topic 6: Law Libraries.** Overview of law librarianship, the discipline of law, and the culture of the legal environment, including the context in which law librarians, legal publishers, and other legal information professionals work.

### **INF 388L. Professional Experience and Project.**

Study of a practical problem, current phenomenon, or professional issue in an institutional setting. Conference course. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; Completion of at least twenty-seven semester hours of coursework in the graduate program in information studies.

### **INF 388R. Practicum in School Libraries.**

Designed for students pursuing Texas Education Agency (TEA) certification in school librarianship. Fieldwork in varied school library settings under the supervision of qualified personnel. At least 160 hours of supervised fieldwork for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; consent of the department.

### **INF 188T, 288T, 388T. Internship in Libraries and Other Information Agencies.**

Supervised fieldwork. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional hours to be arranged. May not be counted toward any degree in the School of Information. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of graduate adviser.

### **INF 389C. Archival and Records Enterprise.**

Theory and practice of archival administration and records management. Problems in acquiring, organizing, and providing for use of archives and office records; issues in deterioration and care of paper, books, photographic material, magnetic records, and other media through preservation programs for libraries and archives. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **INF 389E. Introduction to Records Management.**

Systems for controlling recorded information in an organizational setting. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 389G. Introduction to Electronic and Digital Records.**

Examines personal recordkeeping and information management to explore the creation, management, and preservation of digital information. Includes current developments in digital technology that affect recordkeeping. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 389J. Appraisal and Selection of Records.**

Investigates the history, theory, and practice of selecting and appraising records information for permanent or quasi-permanent retention in an archival environment. Explores influences of other stakeholders on the selection and appraising process. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 389K. Life Cycle Metadata for Digital Objects.**

Constructing the "metadata continuum" in order to understand how metadata may function as an authenticating wrapper for an electronic record. Analysis of the elements of the continuum, including records surveys and inventories, creation metadata, active management metadata, records schedules, accession records, cataloging and description metadata, maintenance records, and usage records. Three

lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **INF 389M. Introduction to Issues in Records Information.**

Exploration of the fundamentals of records information and their role in society. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 389N. Seminar in Archival Enterprise.**

Theory and practice of archival administration and records management. Problems in acquiring, organizing, preserving, and providing for use of administrative and collected archives. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; prerequisites may vary with the topic.

### **INF 389R. Introduction to Archival Enterprise I.**

Introduction to the records aspect of archival enterprise, from acquisition to use, with emphasis on arrangement and description. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 389S. Introduction to Archival Enterprise II.**

Administrative and professional issues, including organizing the work of a repository, management issues, marketing, space, law, and ethics. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 390C. Copyright: Legal and Cultural Perspectives.**

Digital and other important communication technologies; how copyright in the United States developed and has evolved; and copyright seen from a number of disciplinary points of view, such as legal studies, cultural history, and public policy. Other subjects may include the cultural commons; natural rights arguments for copyright versus social bargain and statutory arguments; identifying and protecting the public interest in information; the law of copyright and cultural categories such as the author, the work, intellectual property, and creation; and important federal court cases. Three lecture hours a week for one semester. Information Studies 390C and 390N (Topic: Copyright: Legal and Cultural Perspectives) may not both be counted. Prerequisite: Graduate standing.

### **INF 390N. Information Policy.**

Critical examination of conflicts and trends in information policy in private organizations and in federal, state, and international public-sector organizations. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; prerequisites may vary with the topic.

**Topic 1: Federal Information Policy.** Exploration of major information-policy conflicts around topics such as privacy, surveillance, and freedom of information; in-depth analysis of the implications of digital technologies in the post-9/11 United States. Designed to help students develop skill in policy analysis as a research method and familiarity with many kinds of sources of information about federal information policy.

**Topic 2: Seminar in Information Policy.** Analysis of issues and trends in information policy in various environments.

### **INF 390P. Topics in Privacy.**

Policy, value systems, and critical theory regarding privacy, studied from historical, sociological, feminist, or other perspectives. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; prerequisites may vary with the topic.

### **INF 391D. Doctoral Inquiry in Information Studies.**

Restricted to students in the information studies doctoral program. Topics in the theoretical, methodological, and practical aspects of information studies. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites may vary with the topic.

**Topic 6: Directed Readings.**

**Topic 7: Directed Research.**

**Topic 8: Introduction to Doctoral Research and Theory I.** Foundations of inquiry in the humanities, social sciences, and natural sciences, and a review of theories and methods of inquiry in information studies in particular.

**Topic 9: Doctoral Research and Theory II.** Epistemological concepts and processes of theory generation and testing in information studies, with special attention to research methods and specific problems of interest to the student.

**Topic 10: Survey of Information Studies.** An overview of the major ideas, concepts, and theories of information studies.

**Topic 11: The Research Enterprise.** An overview of the nature and purposes of research, and common methods and methodologies in information studies.

**Topic 12: Disciplinary Foundations for Information Studies.** An overview of concepts, results, and perspectives from philosophical, social science, humanistic, design, and technological disciplines that provide important underpinnings for information studies.

### **INF 391E. Advanced Topics in Information Studies.**

Restricted to students in the information studies doctoral program. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, Information Studies 391D (Topic 10), and consent of instructor; additional prerequisites may vary with the topic.

### **INF 391F. Advanced Topics in Research Methods, Methodologies, and Design.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, Information Studies 391D (Topic 11), or consent of instructor; additional prerequisites may vary with the topic.

### **INF 391G. Doctoral Writing Seminar.**

Intensive writing, critique, and rewriting to assist senior doctoral students with refining their research writing in preparation for qualifying papers, dissertation proposals, and formal publications. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **INF 392C. Preservation Administration and Services.**

Theory and practice of preservation administration and services. Problems in planning, organizing, and implementing preservation work in libraries, archives, and museums. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **INF 392D. Preservation Basics.**

Fundamental issues and problem solving in the preservation of cultural heritage collections in libraries and archives. Topics include the development and ethics of preservation and conservation, types and causes of deterioration, preventive care and stabilization, monitoring and controlling interior environments, reformatting, and performing preservation-needs assessments. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 392E. Materials in Libraries, Archives, and Museums.**

Underlying factors in the physical nature of materials; concepts of permanence, durability, and deterioration; challenges of both traditional and modern collections; emphasis on print and photographic collections. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 392F. Risk Assessment and Collections Management.**

Agents of deterioration, including physical forces, security, disaster, and environmental conditions; risk assessment, strategies to reduce risk, and personal safety. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 392G. Management of Preservation Programs.**

Management of specific preservation strategies for cultural record; preservation policy; the selection process for preservation; minor mending and repair operations; library binding and conservation treatment; preservation assessments; emergency preparedness; contracting for services; and budgeting, grant writing, and fund-raising for preservation. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 392H. Creating Sustainable Digital Collections.**

Hands-on activities that focus on building sustainable collections of digitized resources. Designed to help students gain curatorial understanding of the media to be digitized and knowledge of and experience with the technical and managerial aspects of the digitization process. Includes creation of metadata and digital preservation strategies for long-term access. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 392K. Digital Archiving and Preservation.**

Examines the permanent archiving of digital information. Covers media refreshment, emulation, migration, and electronic records repository construction and administration. Case study projects involving campus repositories and off-campus institutions. Students use legacy hardware and software and digital forensics tools to preprocess digital collections for repository storage. Also explores issues in long-term electronic records preservation. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **INF 392L. Introduction to Audio Preservation and Reformatting.**

Study of audio recording through a chronological examination of the development of recording; basic care and preservation of recordings; economics of audio preservation; and stability concerns of modern media. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 392M. Advanced Audio Preservation and Reformatting.**

Exploration of changing concepts in the nature of audio information in different formats, issues of access within the context of preservation, criteria for prioritization of materials to be reformatted, considerations in invasive versus minimal restoration, and study of rare formats. Three lecture hours a week for one semester. Prerequisite: Graduate standing and credit or registration for Information Studies 392L.

### **INF 392P. The Politics of Preservation.**

Introduction to the components of the media industries, using the available literature as well as the University's film and video resources. The course employs both a theoretical and a practical approach to the archival media product. Debate over defining historical media material as artifact complements discussion of the realities of digitization and

physical deterioration. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 393C. Conservation Laboratory Techniques.**

Analysis, housing, and treatment of physical objects. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; Information Studies 392E is strongly recommended; additional prerequisites may vary with the topic.

**Topic 8: Conservation Science I.** Introduction to the physical and chemical properties of materials used in fabrication; and identification and repair of books, photographs, manuscripts, and related objects.

**Topic 9: Conservation Science II.** Advanced exploration of the physical and chemical properties of materials used in fabrication; and identification and repair of books, photographs, manuscripts, and related objects. Includes a research investigation of a typical conservation problem.

**Topic 10: Treatment Techniques for Flat Paper.** Basic techniques for care and handling of paper materials including but not limited to mending, dry cleaning, humidification and flattening, exhibit design and installation, enclosures, and documentation.

**Topic 11: Treatment Techniques for Bound Materials.** Basic techniques for care and handling of bound materials including but not limited to sewing structure, minor mends, and enclosures.

### **INF 397. Research in Information Studies.**

Methods and subjects of research in information studies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; prerequisites may vary with the topic.

**Topic 1: Bibliography and Methods in Historical Research.** Sources of information for, and techniques of conducting, investigations in history.

**Topic 2: Practicum in Research.** Prerequisite: Consent of instructor and the graduate adviser.

**Topic 3: Digital Libraries Research.** Exploration of theoretical and practical research on creating digital collections and making them available. Additional prerequisite: Information Studies 385R and 392H, significant experience in digital applications in digital libraries, or consent of instructor.

**Topic 4: Seeking Funding for Information Studies.** Designed to help students gain an understanding of and hands-on experience with the pursuit of funding for information studies. Students investigate possible funding sources, and develop at least one grant or contract application.

### **INF 397C. Understanding Research.**

Survey of the goals, methods, processes, and products of systematic inquiry. Designed to prepare students to critically evaluate information studies research. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 397D. Bibliography and Methods in Historical Research.**

Sources of information for and techniques of conducting investigations in history. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **INF 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in information studies, Information Studies 397C, and written consent of the graduate advisor; for 698B, Information Studies 698A.

### **INF 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in information studies, Information Studies 397C, and written consent of the graduate advisor.

### **INF 398T. Supervised Teaching in Information Studies.**

Teaching strategies for course design, syllabus creation, material development, classroom activities, student engagement, and grading. Additional subjects may include negotiation of course load and timing, course marketing, TA management, online teaching, and doctoral teaching/advising. Three lecture hours a week for one semester. May be repeated for credit as a teaching practicum. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **INF 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Integrated Design Courses**

## **Integrated Design: ITD**

### **Lower-Division Courses**

#### **ITD 101. Introduction to Integrated Design.**

Introduction to the concepts, mindsets, and methods of design thinking as a fundamental skill for all disciplines. The equivalent of one lecture hour a week for one semester.

#### **ITD 301D. Introduction to Design Thinking.**

Same as Design 301. Introduces design thinking and design methods, with a focus on design process. Three lecture hours a week for one semester. Design 301 and Integrated Design 301D may not both be counted. Offered on the letter-grade basis only.

#### **ITD 102. Sketching for Thinking and Communication.**

Discussion of sketching as the fastest way to convey ideas, both in an ideation session or taking notes in a meeting. Explores the basic elements of sketching to visualize concepts and quickly bring alignment to any team. The equivalent of one lecture hour a week for one semester.

#### **ITD 103. Portfolio Critique.**

Development of a portfolio of work to present for feedback. Designed to help students understand what is expected to create a personal portfolio to show potential employers. The equivalent of one lecture hour a week for one semester.

#### **ITD 104. Design in Business.**

Introduction to the role that business plays in the design industry. Designed to help students learn business principles to enhance problem solving skills. The equivalent of one lecture hour a week for one semester.

#### **ITD 105. Introduction to Computer Science Principles.**

Restricted to non-computer science majors. Introduction to the basic principles and terms of logic, programming and computer science for non-computer science majors. The equivalent of one lecture hour a week for one semester.

### **ITD 106. Presentation and Improvisational Skills in Design Thinking.**

Focus on presentation skills and improvisational/impromptu speaking skills in meetings. The equivalent of one lecture hour a week for one semester.

### **ITD 107. Introduction to Desktop Publishing Software.**

Introduction to elements of desktop publishing software. Explores basic skills in computer applications such as Adobe InDesign. The equivalent of one lecture hour a week for one semester.

### **ITD 108. Introduction to Graphic Editing Software.**

Introduction to elements of graphic editing software. Focus on basic skills in computer applications such as Adobe Photoshop. The equivalent of one lecture hour a week for one semester.

### **ITD 109. Introduction to Vector Graphics Software.**

Introduction to elements of vector graphic software. Focus on basic skills in computer applications such as Adobe Illustrator. The equivalent of one lecture hour a week for one semester.

### **ITD 110, 210, 310. Topics in Integrated Design.**

Studies within integrated design. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary.

### **ITD 110T, 310T. Topics in Innovative Design.**

Exploration of topics in innovative design. For 110T, two laboratory hours a week for one semester; for 310T, six laboratory hours a week for one semester. Additional hours to be arranged as needed. May be repeated for credit when the topics vary.

### **ITD 111. Intro to Design for Artificial Intelligence.**

Introduction to exploring design as a problem-solving tool for real-world scenarios posed from artificial intelligence and robotics. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Offered on the letter-grade basis only.

### **ITD 312. Introduction to Design for Health.**

Introduction to how design is playing a role in the changing healthcare industry. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C in each: Integrated Design 101, and Design 301 or Integrated Design 301D.

### **ITD 115. Creative Entrepreneurship.**

Exploration of the integration of entrepreneurship in industry and introduction to the creative process of starting new ventures. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Offered on the letter-grade basis only.

## **Upper-Division Courses**

### **ITD 320. Advanced Design for Artificial Intelligence.**

Advanced exploration of real-world scenarios posed from artificial intelligence and robotics. In-depth study of designing and solving problems for artificial intelligence. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Integrated Design 301D and Integrated Design 111 or Integrated Design 110.

### **ITD 125, 225, 325. Topics in Artificial Intelligence Design.**

Studies within design and artificial intelligence. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the

letter-grade basis only. Prerequisite: Upper-division standing; Integrated Design 301D; and Integrated Design 111 or 320.

### **ITD 130T, 330T. Topics in Innovative Design.**

Explore innovative topics in design. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **ITD 333. Women in Entrepreneurship.**

Explore the unique perspective of the female entrepreneurship journey. Examine gender dynamics and diversity in the entrepreneurial sphere. Discuss strategies for success with experienced female mentors and speakers. Consider a new venture through team-based experiential learning. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **ITD 150, 250, 350. Advanced Topics in Integrated Design.**

Advanced studies in integrated design. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### **ITD 350D. Business of Design.**

Designed to help students form an advanced understanding of the role that business plays in the design industry and the operational components necessary to be successful in the design industry. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and the following with a grade of at least C in each: Integrated Design 101, 304, and Design 301 or Integrated Design 301D.

### **ITD 150T, 350T. Topics in Advanced Innovative Design.**

Exploration of topics in advanced innovative design. For 150T, two laboratory hours a week for one semester; for 350T, six laboratory hours a week for one semester. Additional hours to be arranged as needed. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### **ITD 365. Applied Ethnographic Research in Design.**

Focus on how to create actionable insights using ethnographic research. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and the following with a grade of at least C in each: Integrated Design 101, and Design 301 or Integrated Design 301D.

### **ITD 170, 270, 370. Topics in Off-Site Field Studios.**

Project-based work with off-campus industry studio partners. Professional experience solving real-world problems including, but not limited to, commissioned projects, student-initiated projects, and pro bono projects. For 170, two laboratory hours a week for one semester; for 270, four laboratory hours a week for one semester; for 370, six laboratory hours a week for one semester. Additional hours to be arranged as needed. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: For College of Fine Arts majors, upper-division standing and six semester hours of upper-division coursework in design or integrated design; for non-College of Fine Arts majors, upper-division standing and consent of instructor.

### **ITD 375. Capstone in Integrated Design.**

Restricted to students in the bridging discipline program. Multidisciplinary groups of students research an integrated design problem and propose and prototype an appropriate solution, guided by feedback from supervising instructor(s). Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Integrated Design 101, Integrated Design 301D,

three additional one-credit Integrated Design Courses, and consent of instructor.

## Graduate Courses

### ITD 380. Design Thinking.

Explores the concepts of design thinking and human-centered design methods, with a focus on design process and problem solving. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### ITD 185, 285, 385. Topics in Integrated Design.

Graduate studies within integrated design. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; and Integrated Design 380 or consent of instructor. May be taken concurrently with Integrated Design 380 if topic is appropriate.

### ITD 186, 286, 386, 486, 586, 686. Topics in Integrated Design Studio.

Project-based studio graduate work within integrated design. For each semester hour of credit earned, the equivalent of two hours of laboratory work per week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; and Integrated Design 380 or consent of instructor. May be taken concurrently with Integrated Design 380 if topic is appropriate.

### ITD 390. Design for Health.

Exploration of creative design-based approaches and problem-solving methods and their application to solving contemporary health care challenges. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Integrated Design 380, or consent of instructor

### ITD 291. Health Design Seminar.

Design techniques, case studies, and team critiques. Seminar component of Integrated Design 692. Two lecture hours a week for one semester. Prerequisite: Graduate standing; and Integrated Design 390 or consent of instructor. Concurrent enrollment in Integrated Design 692.

### ITD 692. Health Design Lab.

Team-based, project-focused application of the principles of design to real-world health and wellness challenges. Lab component of Integrated Design 291. Twelve laboratory hours a week for one semester. Prerequisite: Graduate standing; and Integrated Design 390 or consent of instructor. Concurrent enrollment in Integrated Design 291.

### ITD 195, 295, 395. Topics in Health Design.

Graduate studies within health design. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Integrated Design 380 and 390, or consent of instructor

### ITD 196, 296, 396, 496, 596, 696. Topics in Health Design Studio.

Project-based studio graduate work within health design. For each semester hour of credit earned, the equivalent of two hours of laboratory work per week for one semester. Additional hours to be arranged as needed. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Integrated Design 380 and 390, or consent of instructor

## Professional Courses

# International Business Courses

## International Business: I B

### Lower-Division Courses

### Upper-Division Courses

#### I B 320F. Foundations of International Business.

Restricted to non-McCombs School of Business majors. Fundamentals of international trade and the international economy; international dimensions of several functional areas of business, including management, marketing, finance, and human resource management; theoretical, institutional, and functional foundations of international business. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Business Administration degree. Only one of the following courses may be counted: Economics 339K, European Studies 348 (Topic 2: International Trade), International Business 320F, 350, 350S. Prerequisite: Forty-five semester hours of college coursework.

#### I B 137C. Introduction to Management in a Global Environment.

Same as Management 137C. Restricted to students pursuing the global management minor. Develops students' skills in recognizing cultural tendencies, both in themselves and in new geographic locations; introduces observation and reflection techniques to maximize learning while abroad. Course must be taken before participation in the international experience component required by the Global Management Certificate. One lecture hour a week for one semester. International Business 137C and Management 137C may not both be counted. Offered on the letter-grade basis only.

#### I B 237D. Global Management Capstone.

Same as Management 237D. Restricted to students pursuing the global management minor. Develops students' ability to process and articulate learning from intercultural experience; develops skills in applying knowledge and strategies gained in one region/country to new cultural and geopolitical contexts. Two lecture hours a week for one semester. Management 237D and International Business 237D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Management 137C or International Business 137C, completion of required international experience component of the Global Management Minor, and consent of instructor.

#### I B 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in International Business.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Marketing. University credit is awarded for work in an exchange program; it may be counted a coursework taken in residence. May be repeated for credit when the topics vary.

#### I B 350. International Trade.

Same as European Studies 348 (Topic 2). Study of the principles, policies, and problems of the international exchange of goods and investments. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 339K, European Studies 348 (Topic 2), International Business 320F, 350, 350S. Prerequisite: Upper-division standing.

#### I B 350S. International Commerce Analysis.

Study of the principles, policies, and problems of the international exchange of goods and investments. This course is used for classes

taken on an approved study abroad program with the content equivalent of International Business 350. The equivalent of three lecture hours a week for one semester. Only one of the following may be counted: Economics 339K, European Studies 348 (Topic 2), International Business 320F, 350, 350S. Offered on the letter-grade basis only. Prerequisite: Consent of Instructor.

### **I B 151S. Independent International Analysis.**

Restricted to students in a business major. Country analysis by independent study. Designed for marketing majors who participate on a McCombs summer faculty led program. Conference course. Offered on the letter-grade basis only. Prerequisite: Credit or registration for International Business 350S; and approval from the BBA Program Office before the first meeting of the course.

### **I B 362. Global Regulatory Strategy.**

Examine management of a firm in a rapidly evolving regulatory environment across the world as new technology reshapes social norms, legal rules, and society itself. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **I B 365. Finance and Global Business.**

Examine investments across sectors and countries in the face of a rapidly evolving world. Explore micro-investing to build a framework for analyzing different sectors across countries and how it applies to different countries around the world. Investigate macro-investing to develop a broader understanding of how financial markets work in different countries. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **I B 366. International Accounting and Transfer Pricing.**

Same as Accounting 366C. Discover how to price transactions between subsidiaries of multinational corporations buying and selling goods, services, intellectual property and other assets in light of tax obligations and other considerations. Three lecture hours a week for one semester. Accounting 366C and International Business 366 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **I B 366P. International Business Practicum.**

Restricted to international business majors or students pursuing the international business minor. Apply skills learned in International Business courses through group projects conducted in a professional setting. Work with a private or public enterprise. The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; completion of forty-five semester hours of coursework, International Business 350, and consent of instructor.

### **I B 367. Strategic Supply Chain Management.**

Same as Operations Management 367. Restricted to students in a business major. Management of manufacturing process technology in international competition. Three lecture hours a week for one semester. International Business 367 and Operations Management 367 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Operations Management 334M, 235, or 235H with a grade of at least C-; Operations Management 338; and credit or registration for Operations Management 368.

### **I B 368. Global Value Chains.**

Investigate problems that complicate the operation of supply chains on a global scale, such as political risk. Three lecture hours a week for

one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **I B 172, 272, 372. Seminar in International Business.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

**Topic 1: International Marketing.**

**Topic 3: Managing the Global Corporation.**

**Topic 4: Competing with the Japanese.**

**Topic 5: Business in Latin America.**

**Topic 6: Business German.** German 356W and International Business 172 (Topic 6), 272 (Topic 6), 372 (Topic 6) may not both be counted. Additional prerequisite: German 312K or 312V with a grade of at least C-, or appropriate score on the placement test.

**Topic 7: Advanced Business German.** Designed for students who have taken German 328. Taught in German. Normally meets with German 336W. German 336W and International Business 172 (Topic 7), 272 (Topic 7), 372 (Topic 7) may not both be counted. May be counted toward the international business elective requirement. Additional prerequisite: Three courses beyond German 506, or equivalent credit on the placement test.

**Topic 8: Business Spanish.** International Business 172 (Topic 8), 272 (Topic 8), 372 (Topic 8) and Mexican American Studies 350 may not both be counted. Additional prerequisite: Spanish 327G.

**Topic 9: Business French.** Taught in French. Additional prerequisite: French 320E and one additional upper-division French course, or consent of instructor.

**Topic 10: Exporting for Entrepreneurs.** Practicum-based course exploring the challenges associated with developing an export strategy for an existing start-up and/or small business. Covers topics surrounding export management as well as how business functions are impacted by a desire to export. International Business 372.10 and 372 (Topic: Exporting for Entrepreneurs) may not both be counted.

**Topic 11: Global Entrepreneurship.** A practical guide to starting, managing and exiting a business in a global context. Aspects of global entrepreneurship including opportunity analysis, business planning, fundraising, competing in a global marketplace, and managing through crisis explored through practical experience and real-world examples. International Business 372 (Topic: Global Entrepreneurship) and 172, 272, 372 (Topic 11) may not both be counted.

**Topic 12: Intercultural Management.** Provide a conceptual framework and specific tools for interacting successfully in international teams, negotiations, and partnerships. Discuss cultural patterns characteristic of world regions and particular countries in terms of their implications for corporate management. Only one of the following may be counted: Management 337 (Topic: Intercultural Management), 137, 237, 337 (Topic 3), and International Business 372 (Topic 12).

### **I B 373. Business in Emerging Markets.**

Only one of the following may be counted: International Business 372 (Topic 2), 373, Latin American Studies 322 (Topic 9), Middle Eastern Studies 341 (Topic 2). Prerequisite: Upper-division standing.

### **I B 376. International Finance.**

Same as Finance 376. Restricted to students in a business major. Explore the international financial environment, with emphasis on the factors affecting exchange rates and how exchange rate changes affect the firm. Three lecture hours a week for one semester. Finance 376 and International Business 376 may not both be counted. Prerequisite: Finance 357 or 357H.

### **I B 378. International Business Operations.**

Restricted to students in a business major. Establishment and conduct of international business operations: trade, investments, branch and subsidiary management, intermediary functions; case studies in international enterprise. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; at least seventy-five semester hours of coursework, including Economics 339K or International Business 350; and credit or registration for one of the following: Accounting 353J, 366P, Business Administration 353, 353H, Finance 353, 366P, Management 347P, 353, 366P, 367P, 369P, Management Information Systems 353, 366P, Marketing 353, 366P, Operations Management 353, 366P.

### **I B 179C, 379C. Independent Research in International Business.**

Restricted to students in a business major. Conference course. Only one of the following may be counted: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upper-division; International Business 350 with a grade of at least C-; and consent of instructor. A student registering for this course must obtain written approval from the department chair's office, on forms provided for that purpose, before the first meeting of the course.

### **Graduate Courses**

#### **I B 185E, 285E, 385E. Directed Studies in Global Management and Business Practices.**

Same as Management 185E. Same as Management 285E. Same as Management 385E. Study global business practices through lectures on campus and trips to international partner schools. The equivalent of one lecture hour a week for one semester. Only one of the following may be counted: International Business 385E, Management 185C and 385E. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **I B 395. Seminar: International Trade.**

Study of contemporary topics in international trade and investment theories, policies, and problems. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing; some topics also require consent of instructor.

**Topic 1: Global Strategic Management.** The changing global business environment and the ways multinational corporations compete in this environment. Case studies and readings, followed by a global management computer simulation. Offered on the letter-grade basis only.

**Topic 2: International Trade and Investment.** The basis for international trade, foreign exchange determination, balance of payments, and international trade and investment policy. Macro-level aspects of the international economy, which provide the basis for the functioning of the global economy. Offered on the letter-grade basis only.

**Topic 3: Global Business Operations.** Overview of management in a multinational context, focusing on the multinational corporation; the economic, political, and social environments in which it operates; and its basic managerial concerns with finance, management, marketing, and personnel. Includes an international operations computer simulation. Offered on the letter-grade basis only.

**Topic 4: Business in Developing Countries.** The traditional challenges to business in developing countries and the new challenges of market

liberalization. Similarities and differences among countries and regions. Offered on the letter-grade basis only.

**Topic 5: Business in Japan.** Comprehensive examination of macro-level and micro-level issues involved in conducting business in Japan and in competing with the Japanese in the global marketplace. Macro-level issues include government industrial policy, interfirm relationships, and United States-Japan trade relationships; micro-level issues include management style, foreign expansion strategy, research and development strategy, and distribution practices. Offered on the letter-grade basis only.

**Topic 6: International Marketing Management.** An overview of international marketing, with emphasis on the multinational corporation. Subjects include the changing international environment, researching and entering foreign markets, and the marketing mix in international marketing. Offered on the letter-grade basis only.

**Topic 7: International Operations and Management.** International Business 395 (Topic: Internatl Operations and Mgmt) and 395 (Topic 7) may not both be counted. Offered on the letter-grade basis only.

### **Professional Courses**

## **International Relations and Global Studies Courses**

### **International Relations and Global Studies: IRG**

#### **Lower-Division Courses**

##### **IRG 301. Introduction to International Relations and Global Studies.**

Restricted to international relations and global studies majors. Three lecture hours a week for one semester. Prerequisite: Completion of at least twenty-four semester hours of college coursework.

#### **Upper-Division Courses**

##### **IRG 320F. Foundations of International Relations and Global Studies.**

Restricted to international relations and global studies majors. Survey of contemporary debates related to international relations and global studies. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing and International Relations and Global Studies 301.

##### **IRG 378. Capstone Research in International Relations and Global Studies.**

Restricted to international relations and global studies majors. Three lecture hours a week for one semester. Prerequisite: International Relations and Global Studies 301 and 320F, and a minimum of 75 hours of coursework.

##### **IRG 678H. Honors Tutorial Course.**

Supervised individual research on an international relations and global studies topic. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 678HA, upper-division standing, International Relations and Global Studies 301 with a grade of at least B, and admission to the International Relations and Global Studies Honors Program; for 678HB, International Relations and Global Studies 678HA.

### **Graduate Courses**

### **Professional Courses**

# Islamic Studies Courses

## Islamic Studies: ISL

### Lower-Division Courses

#### ISL 310. Introduction to Islam.

Same as Asian Studies 301M (Topic 15), History 306N (Topic 7), and Religious Studies 319. The beliefs, theology, history, and main social and legal institutions of Islam, including the concept of God and society, the role of women, and Islamic government and movements. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 15), History 306N (Topic 7), Islamic Studies 310, Religious Studies 319.

#### ISL 310R. Introduction to Middle East Religions.

Same as Jewish Studies 310R, Middle Eastern Studies 310R, and Religious Studies 310R. Introduction to the religious landscape of the Middle East including the various expressions of Eastern Christianity, Islam, and Judaism as well as Zoroastrianism. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 310R, Jewish Studies 310R, Middle Eastern Studies 310R, Religious Studies 310R.

#### ISL 311. Topics in Islamic Studies.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Introduction to the Middle East: Religious, Cultural, and Historical Foundations.** A survey of the history and civilization of the Middle East from the sixth to the fourteenth century.

**Topic 2: Judaism, Christianity, and Islam: An Introduction.** Same as History 304R, Jewish Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction), and Religious Studies 304. Examines the intertwined historical developments of the religions of Judaism, Christianity, and Islam, and explores the principal beliefs and practices of Jews, Christians, and Muslims.

#### ISL 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Islamic Studies.

Credit is recorded while the student is enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework counted in residence. Transfer credit is awarded for work in an affiliated studies program. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. May be repeated for credit when the topics vary.

### Upper-Division Courses

#### ISL 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Islamic Studies.

Credit is recorded while the student is enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework counted in residence. Transfer credit is awarded for work in an affiliated studies program. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. May be repeated for credit when the topics vary.

#### ISL 340. Topics in Islam.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Prophet of Islam: His Life and Times.** Same as History 364D and Religious Studies 325. A detailed study of the prophet Muhammad's life and message, and of the means by which his life was recorded and popularized. Three lecture hours a week for one semester. Only one of the following may be counted: History 364G (Topic 2), 364D, Islamic Studies 340 (Topic 1), Religious Studies 325. Additional prerequisite: Upper-division standing.

**Topic 2: The Qur'an.** Same as Comparative Literature 323 (Topic 37), Core Texts and Ideas 375 (Topic 1), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, and Women's and Gender Studies 340 (Topic 54). The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upper-division standing.

**Topic 5: Islamic Law.** Same as Middle Eastern Languages and Cultures 321 (Topic 19), Middle Eastern Studies 342 (Topic 27), Religious Studies 358K, and Women's and Gender Studies 340 (Topic 27). Designed to give students a foundation in the substantive teachings of the shariah, which comprises not only what we normally think of as law, but also ethics and etiquette. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic 5), Middle Eastern Languages and Cultures 321 (Topic: Islamic Law), 321 (Topic 19), Middle Eastern Studies 342 (Topic 27), Religious Studies 358 (Topic: Islamic Law), 358 (Topic 9), 358K, Women's and Gender Studies 340 (Topic 27). Additional prerequisite: Upper-division standing.

**Topic 7: Islamic Theology.** Same as Core Texts and Ideas 357, Middle Eastern Languages and Cultures 321 (Topic 27), Middle Eastern Studies 342 (Topic 35), and Religious Studies 358U. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 375 (Topic 2), 357, Islamic Studies 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 27), Middle Eastern Studies 342 (Topic 35), Religious Studies 358 (Topic 14), 358U. Additional prerequisite: Upper-division standing.

**Topic 8: Shia Islam.** Same as Asian Studies 340W and Religious Studies 359E. Examine how the first century of Islamic history inaugurated debates concerning authority, piety, and justice and how these debates have continued to the present. Explore the social forces and ideologies that shaped Shiism. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Shia Islam), 340W, Islamic Studies 340 (Topic: Shia Islam), 340 (Topic 8), Religious Studies 358 (Topic: Shia Islam), 359E. Additional prerequisite: Upper-division standing.

**Topic 9: Islamic Ethics.** Same as Middle Eastern Studies 342 (Topic 58), Religious Studies 358R, and Women's and Gender Studies 340 (Topic 80). Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic: Islamic Ethics), 340 (Topic 9), Middle Eastern Studies 342 (Topic: Islamic Ethics), 342 (Topic 58), Religious Studies 358 (Topic: Islamic Ethics), 358R, Women's and Gender Studies 340 (Topic: Islamic Ethics), 340 (Topic 80). Additional prerequisite: Upper-division standing.

### **ISL 369. Conference Course in Islamic Studies.**

Supervised individual study of selected problems in Islamic studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **ISL 372. Topics in Islamic Cultures.**

Three lecture hours a week for one semester; additional hours may be required for some topics. Islamic Studies 372 and 373 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 2: Veiling in the Muslim World.** Same as Asian Studies 372F, Middle Eastern Languages and Cultures 321 (Topic 22), Religious Studies 358V, and Women's and Gender Studies 340 (Topic 11). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 14), 372F, Islamic Studies 372 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 22), Religious Studies 358 (Topic 5), 358V, Women's and Gender Studies 340 (Topic 11). Additional prerequisite: Upper-division standing.

**Topic 11: Sacred and Ceremonial Textiles.** Same as Anthropology 324L (Topic 29), Middle Eastern Languages and Cultures 321 (Topic 34), Religious Studies 358T, and Women's and Gender Studies 340 (Topic 57). Textiles and material objects indigenous to the Islamic world, and what they reveal about the culture of various Islamic societies. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Middle Eastern Languages and Cultures 321 (Topic: Sacred and Ceremonial Textiles), 321 (Topic 34), Religious Studies 358 (Topic 11), 358T, Textiles and Apparel 365 (Topic: Sacred and Ceremonial Textiles), Women's and Gender Studies 340 (Topic 57). Additional prerequisite: Upper-division standing.

**Topic 12: Muslim Women: Past and Present I.** Same as Religious Studies 358M and Women's and Gender Studies 340 (Topic 22). Survey of the role of women in Islamic societies from the Middle Ages to the eighteenth century, with a glimpse into modern times. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 372 (Topic 12), Religious Studies 358 (Topic: Muslim Women: Past and Present I), 358 (Topic 12), 358M, Women's and Gender Studies 340 (Topic 22). Additional prerequisite: Upper-division standing.

**Topic 13: Muslim Women: Past and Present II.** Same as Religious Studies 358N and Women's and Gender Studies 340 (Topic 23). Survey of the role of women in the modern Muslim world, with a glimpse into historical developments within Islamic societies. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 372 (Topic 13), Religious Studies 358 (Topic 13), 358N, Women's and Gender Studies 340 (Topic 23). Additional prerequisite: Upper-division standing.

**Topic 20: Mughal India in History and Memory.** Same as Asian Studies 361 (Topic 33) and History 350L (Topic 67). Focuses on South Asia during the era of the Mughal empire (1550-1750), continuing through the symbolic relevance of the Mughal dynasty in British India and in India today. Only one of the following may be counted: Asian Studies 361 (Topic: Mughal India in History and Memory), 361 (Topic 33), History 350L (Topic: Mughal India in History and Memory), 350L (Topic 67), Islamic Studies 372 (Topic: Mughal India in History and Memory), 372 (Topic 20).

**Topic 21: The History of Islam in the United States.** Same as American Studies 370 (Topic 61), History 350R (Topic 22), and Religious Studies 346U. A brief introduction to Islam. Defines the role of Islam and views of Muslims in the early history of the United States, and introduces students to major issues concerning contemporary American Muslims. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: History of Islam in the US), 370 (Topic 61), History 350R (Topic 22), Islamic

Studies 372 (Topic 21), Religious Studies 346 (Topic 10), 346U. Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 22: French Empire: The West and Islam.** Same as History 364Q and Religious Studies 358F. The development of regions within the Mediterranean, variously called the West and East or Europe and Islam, with an emphasis on the role of modern France and France's Mediterranean empire. Three lecture hours for one semester. Only one of the following may be counted: History 364G (Topic 7), 364Q, Islamic Studies 372 (Topic 22), Religious Studies 358 (Topic 16), 358F. Additional prerequisite: Upper-division standing.

**Topic 23: Muslim Women in Politics.** Same as Anthropology 324N, Religious Studies 358D, and Women's and Gender Studies 340 (Topic 56). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Muslim Women in Politics), 324N, Islamic Studies 372 (Topic: Muslim Women in Politics), 372 (Topic 23), Religious Studies 358 (Topic: Muslim Women in Politics), 358 (Topic 19), 358D, Women's and Gender Studies 340 (Topic: Muslim Women in Politics), 340 (Topic 56). Additional prerequisite: Upper-division standing.

**Topic 25: Sex and Sexuality in the Muslim World.** Same as Religious Studies 358J, Sociology 342S, and Women's and Gender Studies 335 (Topic 20). Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 372 (Topic: Sex/Sexuality Muslim World), 372 (Topic 25), Religious Studies 358 (Topic: Sex/Sexuality Muslim World), 358J, Sociology 321K (Topic: Sex/Sexuality Muslim World), 342S, Women's and Gender Studies 335 (Topic: Sex/Sexuality Muslim World), 335 (Topic 20). Additional prerequisite: Upper-division standing.

**Topic 27: Views of Islam in the United States.** Same as American Studies 327L and Religious Studies 346T. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Views of Islam in the US), 327L, Islamic Studies 372 (Topic: Views of Islam in the US), 372 (Topic 27), Religious Studies 346 (Topic: Views of Islam in the US), 346T. Additional prerequisite: Upper-division standing.

### **ISL 373. Topics in Middle Eastern Islamic Cultures.**

Three lecture hours a week for one semester; additional hours may be required for some topics. Islamic Studies 372 and 373 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Introduction to Arabic Literature.** Same as Comparative Literature 323 (Topic 13), Middle Eastern Languages and Cultures 321 (Topic 1), and Middle Eastern Studies 342 (Topic 1). General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era. Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Arabic Literature), 323 (Topic 13), Islamic Studies 373 (Topic 1), Middle Eastern Languages and Cultures 321 (Topic 1), Middle Eastern Studies 342 (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 2: Loyalty and Rebellion in Arabic Literature.** Same as Middle Eastern Languages and Cultures 321 (Topic 2) and Middle Eastern Studies 342 (Topic 2). Only one of the following may be counted: Islamic Studies 373 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 2), Middle Eastern Studies 342 (Topic 2). Additional prerequisite: Upper-division standing.

**Topic 3: Memory and Identity in Ancient Arabia.** Same as Middle Eastern Languages and Cultures 321 (Topic 3) and Middle Eastern Studies 342 (Topic 3). Only one of the following may be counted: Islamic Studies 373 (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 3), Middle Eastern Studies 342 (Topic 3). Additional prerequisite: Upper-division standing.

**Topic 4: The Arabian Nights.** Same as Middle Eastern Languages and Cultures 321 (Topic 4) and Middle Eastern Studies 342 (Topic 4). Only one of the following may be counted: Comparative Literature 323 (Topic: The Arabian Nights), Middle Eastern Languages and Cultures 321 (Topic 4), Religious Studies 358 (Topic: The Arabian Nights), Women's and Gender Studies 340 (Topic: The Arabian Nights). Additional prerequisite: Upper-division standing.

**Topic 5: Modern Egypt: A History.** Same as History 334E and Middle Eastern Studies 343 (Topic 1). Critically examines the social, political, and intellectual dynamics that shaped the different forms of political community, economic organization, and public culture over the past century. Covers colonialism, liberalism, Arab socialism, authoritarian capitalism, and Islamic republicanism. Three lecture hours a week for one semester. Only one of the following may be counted: History 334E, History 364G (Topic: Modern Egypt: A History), Islamic Studies 372 (Topic: Modern Egypt: A History), 373 (Topic 5), Middle Eastern Studies 343 (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 6: Politics of Court Literature.** Same as Middle Eastern Studies 342 (Topic 25). Only one of the following may be counted: Arabic 360L (Topic 3), Comparative Literature 323 (Topic: Politics of Court Literature), Islamic Studies 373 (Topic 6), Middle Eastern Studies 342 (Topic 25). Additional prerequisite: Upper-division standing.

**Topic 7: Arab Women Poets.** Same as Arabic 360L (Topic 2) and Middle Eastern Studies 342 (Topic 26). Only one of the following may be counted: Arabic 360L (Topic 2), Comparative Literature 323 (Topic: Arab Women Poets), Islamic Studies 373 (Topic 7), Middle Eastern Studies 342 (Topic 26). Additional prerequisite: Upper-division standing, and Arabic 420L with a grade of at least C in each, or Arabic 531L with a grade of at least C.

**Topic 8: Gender in North and West Africa.** Same as African and African Diaspora Studies 340S, Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 342 (Topic 28), and Women's and Gender Studies 340 (Topic 34). Examines gender discourses through North African and West African literary works by looking at the role(s) played by Islam and Christianity in the creation of the identities of African men and women. Includes discussion of the question of what gender is, and whether it is socially constructed. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340S, 372G (Topic 5), Islamic Studies 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 342 (Topic 28), Women's and Gender Studies 340 (Topic 34). Additional prerequisite: Upper-division standing.

**Topic 9: The Cities of the Middle East.** Same as Anthropology 324L (Topic 51) and Middle Eastern Studies 341 (Topic 3). Anthropological and sociological analysis of space, with a special emphasis on urban theory and culture in the Middle East. Only one of the following may be counted: Anthropology 324L (Topic: Cities of the Middle East), 324L (Topic 51), Islamic Studies 373 (Topic: Cities of the Middle East), 373 (Topic 9), Middle Eastern Studies 322K (Topic: Cities of the Middle East), 341 (Topic 3), Urban Studies 354 (Topic: Cities of the Middle East), 354 (Topic 15).

**Topic 10: Iranian Culture.** Same as Middle Eastern Languages and Cultures 321 (Topic 20) and Middle Eastern Studies 342 (Topic 30). Only one of the following may be counted: Islamic Studies 373 (Topic: Iranian Culture), Islamic Studies 373 (Topic 10), Middle Eastern Languages and Culture 321 (Topic: Iranian Culture), Middle Eastern Languages and Cultures (Topic 20), Middle Eastern Studies 342 (Topic: Iranian Culture), Middle Eastern Studies 342 (Topic 30), Persian 372 (Topic: Iranian Culture). Additional prerequisite: Upper-division standing.

**Topic 11: Gender Politics in the Islamic World.** Same as Middle Eastern Studies 341 (Topic 7), Religious Studies 358G, Sociology 336G, and Women's and Gender Studies 340 (Topic 44). Study of the Islamic world and major sociological concepts such as gender,

social organizations, culture, and politics. Examines how culture is mediated by politics, resulting in diverse interpretations of Islam and in different policies with respect to women's rights. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 373 (Topic 11), Middle Eastern Studies 341 (Topic 7), Religious Studies 358 (Topic 8), 358G, Sociology 336G, Women's and Gender Studies 340 (Topic 44). Additional prerequisite: Upper-division standing.

**Topic 12: Rumi and the Persian Sufi Tradition.** Same as Middle Eastern Languages and Cultures 321 (Topic 28) and Middle Eastern Studies 342 (Topic 36). Only one of the following may be counted: Comparative Literature 323 (Topic: Rumi & Persian Sufi Tradition), Islamic Studies 372 (Topic: Rumi & Persian Sufi Tradition), Islamic Studies 373 (Topic: Rumi & Persian Sufi Tradition), Islamic Studies 373 (Topic 12), Middle Eastern Languages and Cultures 321 (Topic: Rumi & Persian Sufi Tradition), Middle Eastern Languages and Cultures 321 (Topic 28), Middle Eastern Studies 321K (Topic: Rumi & Persian Sufi Tradition), Middle Eastern Studies 342 (Topic: Rumi & Persian Sufi Tradition), Middle Eastern Studies 342 (Topic 36), Persian 361 (Topic: Rumi & Persian Sufi Tradition), Religious Studies 358 (Topic: Rumi & Persian Sufi Tradition). Additional prerequisite: Upper-division standing.

**Topic 14: The Middle East in World Poetry.** Same as Middle Eastern Languages and Cultures 321 (Topic 30) and Middle Eastern Studies 342 (Topic 39). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Middle East in World Poetry), Islamic Studies 373 (Topic: Middle East in World Poetry), 373 (Topic 14), Middle Eastern Languages and Cultures 321 (Topic: Middle East in World Poetry), 321 (Topic 30), Middle Eastern Studies 342 (Topic: Middle East in World Poetry), 342 (Topic 39). Additional prerequisite: Upper-division standing.

**Topic 15: Gender and Art in the Muslim World.** Same as Asian Studies 374D, Middle Eastern Languages and Cultures 321 (Topic 31), Middle Eastern Studies 342 (Topic 40), Religious Studies 358W, and Women's and Gender Studies 340 (Topic 62). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 46), 374D, Islamic Studies 373 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 31), Middle Eastern Studies 342 (Topic 40), Religious Studies 358 (Topic 20), 358W, Women's and Gender Studies 340 (Topic 62). Additional prerequisite: Upper-division standing.

**Topic 16: Persian Art: Past and Present.** Same as Middle Eastern Languages and Cultures 321 (Topic 35) and Middle Eastern Studies 342 (Topic 43). Only one of the following may be counted: Islamic Studies 373 (Topic: Persian Art: Past and Present), 373 (Topic 16), Middle Eastern Languages and Cultures 321 (Topic: Persian Art: Past and Present), 321 (Topic 35), Middle Eastern Studies 342 (Topic: Persian Art: Past and Present), 342 (Topic 43). Prerequisite: Upper-division standing.

**Topic 17: Graffiti and Poster Art in the Islamic World.** Same as Anthropology 324L (Topic 59), Middle Eastern Languages and Cultures 321 (Topic 36), Middle Eastern Studies 342 (Topic 44), Religious Studies 359C, and Women's and Gender Studies 340 (Topic 67). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Graffiti/Poster Art: Islm Wrld), 324L (Topic 59), Islamic Studies 373 (Topic: Graffiti/Poster Art: Islm Wrld), 373 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic: Graffiti/Poster Art: Islam World), 321 (Topic 36), Middle Eastern Studies 342 (Topic: Graffiti/Poster Art: Islam World), 342 (Topic 44), Religious Studies 358 (Topic: Graffiti/Poster Art: Islm Wrld), 358 (Topic 21), 359C, Women's and Gender Studies 340 (Topic: Graffiti/Poster Art: Islm Wrld), 340 (Topic 67). Additional prerequisite: Upper-division standing.

**Topic 19: Islam and Politics.** Same as Government 364C, Middle Eastern Studies 341 (Topic 9), and Religious Studies 358C. An

introduction to Islamic political thought. Three lecture hours a week for one semester. Only one of the following may be counted: Government 364C, 365N (Topic: Islam and Politics), Islamic Studies 373 (Topic: Islam and Politics), 373 (Topic 19), Middle Eastern Studies 341 (Topic: Islam and Politics), 341 (Topic 9), Religious Studies 358 (Topic: Islam and Politics), 358C. Additional prerequisite: Upper division standing.

**Topic 20: Islam in the Early Modern World: Religion and Culture.**

Same as History 367S, Middle Eastern Studies 343 (Topic 20), and Religious Studies 359D. Examine a history of the religious and cultural development across the Islamic world between the thirteenth and eighteenth centuries, stemming from the rise of the Mongols and the end of the caliphate. Explore the early modern Muslim empires of the Ottomans, Safavids, and the Mughals. Three lecture hours a week for one semester. Only one of the following may be counted: History 364G (Topic: Islam Early Mod World:Rel/Cult), 367S, Islamic Studies 372 (Topic: Islam Early Mod World:Rel/Cult), 373 (Topic 20), Middle Eastern Studies 343 (Topic: Islam Early Mod World:Rel/Cult), 343 (Topic 20), Religious Studies 358 (Topic: Islam Early Mod World:Rel/Cult), 358 (Topic 22), 359D. Additional prerequisite: Upper-division standing.

**Topic 21: Medieval Middle East History in One Hundred Objects.**

Same as Art History 328L, History 339Q, and Middle Eastern Studies 343 (Topic 11). Survey the history of the medieval Middle East, from the period of Late Antiquity (in the seventh century) to the rise of early modern empires of the Safavids, Ottomans, and Mughals (in the seventeenth century), through close examination of the meaning and significance of 100 objects. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328L, 363 (Topic: Mid East Hist in 100 Objects), History 339Q, 364G (Topic: Mid East Hist in 100 Objects), Islamic Studies 373 (Topic: Mid East Hist in 100 Objects), 373 (Topic 21), Middle Eastern Studies 343 (Topic: Mid East Hist in 100 Objects), 343 (Topic 11). Additional prerequisite: Upper-division standing.

**Topic 22: Modern Iran.** Same as History 331L and Middle Eastern Studies 343 (Topic 6). Explore the development of modern Iran; special attention is given to the impact of the West, the constitutional movement, nationalism, the oil crisis, and the Islamic Revolution of 1979. Three lecture hours a week for one semester. Only one of the following may be counted: History 331L, Islamic Studies 373 (Topic: Modern Iran), 373 (Topic: 22), Middle Eastern Studies 343 (Topic: 6). Additional prerequisite: Upper-division standing.

**Topic 23: Modern Middle East History in One Hundred Objects.** Same as Art History 328M, History 343E, and Middle Eastern Studies 343 (Topic 12). Survey the history of the medieval Middle East, from 1500 to the present, through close examination of the meaning and significance of 100 objects. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328M, 366P (Topic: Mod Mid East In 100 Objects), History 343E, 364G (Topic: Mod Mid East In 100 Objects), Islamic Studies 373 (Topic: Mod Mid East In 100 Objects), 373 (Topic 23), Middle Eastern Studies 343 (Topic: Mod Mid East In 100 Objects), 343 (Topic 12). Additional prerequisite: Upper-division standing.

**Topic 25: Rule of Law in the Middle East.** Same as Government 366O, Middle Eastern Studies 341 (Topic 11), and Religious Studies 358L. Three lecture hours a week for one semester. Only one of the following may be counted: Government 365N (Topic: Rule of Law in the Mid East), 366O, Islamic Studies 373 (Topic: Rule of Law in the Mid East), 373 (Topic 25), Middle Eastern Studies 341 (Topic: Rule of Law in the Mid East), 341 (Topic 11), Religious Studies 358 (Topic: Rule of Law in the Mid East), 358L. Additional prerequisite: Upper-division standing.

**ISL 679H. Honors Tutorial Course.**

Supervised individual reading for one semester, following by research and writing to produce a substantial paper on a specific topic in Islamic

studies to be completed during the second semester. Conference course for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Islamic Studies Honors Program; for 679HB, Islamic Studies 679HA.

**Graduate Courses**

**Professional Courses**

**Italian Civilization Courses**

**Italian Civilization: ITC**

**Lower-Division Courses**

**ITC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S.**  
**Topics in Italian Civilization.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**Upper-Division Courses**

**ITC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S.**  
**Topics in Italian Civilization.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**ITC 330. Topics in Italian Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**ITC 335. Rome Sets the Stage.**

Three lecture hours a week for one semester. Italian Civilization 330 (Topic: Rome Sets the Stage) and 335 may not both be counted. Prerequisite: Upper-division standing.

**ITC 336. Vamps, Stars, and The Diva.**

Same as European Studies 347 (Topic 50) and French Civilization 336. Examine French and Italian films through the lens of stardom. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Vamps, Stars, and The Diva), 347 (Topic 50), French Civilization 336, 345 (Topic: Vamps, Stars, and The Diva), Italian Civilization 336, 349 (Topic: Vamps, Stars, and The Diva), Women's and Gender Studies 345 (Topic: Vamps, Stars, and The Diva). Prerequisite: Upper-division standing.

**ITC 337. Italian Masterpieces.**

Same as Core Texts and Ideas 344M and European Studies 347 (Topic 52). Study of representative texts in visual arts, film, literature, and opera, from the Renaissance to the present, in their historical context. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 344M, 375 (Topic: Italy Masters: Lit/Film/Art), European Studies 347 (Topic: Italy Masters: Lit/Film/Art), 347 (Topic 52), Italian Civilization 337, 349 (Topic: Italy Masters: Lit/Film/Art). Prerequisite: Upper-division standing.

### **ITC 338. Italian Television Advertising.**

Same as European Studies 347 (Topic 51) and Women's and Gender Studies 340 (Topic 92). Analysis of Italian television commercials in order to identify changes that have taken place at the level of language, with some attention to socio-cultural dynamics. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Itl TV Ads: Fashion/Food/Cars), 347 (Topic 51), Italian Civilization 338, 349 (Topic: Itl TV Ads: Fashion/Food/Cars), Women's and Gender Studies 340 (Topic: Itl TV Ads: Fashion/Food/Cars), 340 (Topic 92). Prerequisite: Upper-division standing.

### **ITC 339. Italian Cinema.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 322 (Topic 22: Italian Cinema), Italian Civilization 339, 349 (Topic 1). Prerequisite: Upper-division standing.

### **ITC 348. Dante.**

Same as Core Texts and Ideas 344D, English 366D, and European Studies 347 (Topic 23). Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 344D, 345 (Topic: Dante), English 322 (Topic 23), 366D, European Studies 347 (Topic: Dante), 347 (Topic 23), Italian Civilization 348, 349 (Topic 2). Prerequisite: Upper-division standing.

### **ITC 360. Italian Civilization.**

Same as European Studies 347 (Topic 1: Italian Civilization). Survey of the social, political, and cultural history of Italy. Taught in English. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic 1), Italian Civilization 360. With consent of the undergraduate adviser in the Department of French and Italian, may be counted toward a major in Italian. Prerequisite: Upper-division standing.

## **Graduate Courses**

## **Professional Courses**

# **Italian Courses**

## **Italian: ITL**

### **Lower-Division Courses**

#### **ITL 601C. Beginning Italian.**

An intensive beginning course with an emphasis on basic skills: listening, speaking, reading, and writing. Six lecture hours a week for one semester. Only one of the following may be counted: Italian 601C, 604, 506. Only one of the following may be counted: Italian 601C, 604, 507.

#### **ITL 604. Accelerated First-Year Italian.**

Designed for students of high motivation. A six-hour course comparable to Italian 506 and 507. Six lecture hours a week for one semester. Only one of the following may be counted: Italian 601C, 604, 506. Only one of the following may be counted: Italian 601C, 604, 507.

#### **ITL 305. Introduction to Italian Language and Culture.**

An introductory course in Italian language and culture taught in Castiglion-Fiorentino, Italy. Three lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Designed for students studying abroad who wish to receive University credit.

#### **ITL 611C. Intermediate Italian.**

An intensive intermediate course with an emphasis on basic skills: listening, speaking, reading, and writing. Does not meet the prerequisite requirements for Italian 328, 326K, or 326L. Six lecture hours a week for

one semester. Only one of the following may be counted: Italian 611C, 612, 312K. Only one of the following may be counted: Italian 611C, 612, 312L. Prerequisite: Italian 601C, 604, or 507 with a grade of at least C.

#### **ITL 612. Accelerated Second-Year Italian.**

Comparable to Italian 312K and 312L combined. Intensive work in writing, reading, and speaking at the second-year level. Six lecture hours a week for one semester. Only one of the following may be counted: Italian 611C, 612, 312K. Only one of the following may be counted: Italian 611C, 612, 312L. Prerequisite: Italian 604 or 507 with a grade of at least C.

#### **ITL 317C. Enhancing Italian Skills.**

Listening, speaking, reading, and writing course designed to provide students who have credit for Italian 611C with additional preparation for upper-division Italian courses. Three lecture hours a week for one semester. Prerequisite: Italian 611C with a grade of at least C.

#### **ITL 118K. Practice in Spoken Italian I.**

Designed to be taken concurrently with Italian 312K. Two lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Italian 604 or 507 with a grade of at least C.

#### **ITL 118L. Practice in Spoken Italian II.**

Designed to be taken concurrently with Italian 312L. Two lecture hours a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Italian 611C or 312K with a grade of at least C.

#### **ITL 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Italian.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **ITL 320. Advanced Italian.**

Designed to develop the listening, speaking, reading, and writing skills needed for the analysis of literary and cultural readings in Italian. Three lecture hours a week for one semester. Prerequisite: Italian 611C or 312L with a grade of at least C.

#### **ITL 321. Introduction to Italian Literature.**

Reading and analysis of literature, literary criticism, textual analysis. Three lecture hours a week for one semester. Italian 321 and 326K may not both be counted. Italian 321 and 326L may not both be counted. Prerequisite: Italian 320 or 328 with a grade of at least C.

#### **ITL 322L. Tradition and Change in Contemporary Italy.**

An analysis of Italy's trends and of conflicting values in its political, economic, and social development. Three lecture hours a week for one semester. Prerequisite: Italian 320 with a grade of at least C.

#### **ITL 325C. Italian Through Cinema.**

Designed to enrich knowledge of Italian language and culture through screening and discussion of Italian films. Three lecture hours a week for one semester. Prerequisite: Italian 320 or 328 with a grade of at least C.

**ITL 328. Composition and Conversation.**

Focuses on idioms, grammar, syntax, and style. Three lecture hours a week for one semester. Prerequisite: Italian 320 with a grade of at least C.

**ITL 329. Advanced Composition and Conversation.**

Advanced work in writing and speech, based on current events and contemporary readings. Three lecture hours a week for one semester. Prerequisite: Italian 320 or 328 with a grade of at least C.

**ITL 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Italian.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of French and Italian. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**ITL 330. Topics in Italian Studies.**

Analysis of Italian culture. Texts include literature, film, popular culture, and other forms. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Italian 320 or Italian 328 with a grade of at least C.

**ITL 130D. Italian across Disciplines.**

Students read and discuss Italian language materials related to the subject matter of another designated course. One lecture hour a week for one semester. Prerequisite: Upper-division standing, three semester hours of upper-division coursework in Italian, and consent of instructor.

**ITL 330L. Introduction to Italian Linguistics.**

Examine fundamental aspects of the Italian language including its structure as well as geographical, socio-cultural and communicative variation. Three lecture hours a week for one semester. Prerequisite: Italian 320 or 328 with a grade of at least C.

**ITL 332. Italian Translation Workshop.**

Focuses on the practical aspects of translation as a means to expand students' resources by practicing and improving grammar, style and lexicon. Three lecture hours a week for one semester. Italian 330K (Topic: Italian Translation Workshop) and 332 may not both be counted. Prerequisite: Italian 320 or 328 with a grade of at least C.

**ITL 347. Italian Popular Cinema.**

Analysis of Italian genre films (melodrama, comedy, horror, western, action), in their cultural and historical contexts. Three lecture hours a week for one semester. Italian 331 (Topic: Italian Popular Cinema) and 347 may not both be counted. Prerequisite: Italian 320 or 328 with a grade of at least C.

**ITL 348. Italian Drama Workshop.**

Intensive analysis of one or several plays or short literary texts, with emphasis on diction, delivery of lines, and acting and staging. Three lecture hours a week for one semester. Prerequisite: Italian 320 or 328 with a grade of at least C.

**ITL 349P. Italian Internship.**

Three lecture hours a week for one semester. Prerequisite: Italian 320 or 328 with a grade of at least C and consent of the department.

**ITL 358Q. Supervised Research.**

Individual instruction. May be repeated for credit. Prerequisite: Italian 320 or 328 with a grade of at least C and consent of the department.

**ITL 365. Conference Course in Italian Language and Literature.**

Course content varies according to needs of students; designed to fill in gaps and give students a good overall picture of the development of Italian literature. Conference course. Prerequisite: Upper-division standing and consent of the undergraduate adviser or the chair. Italian majors may take conference courses only in exceptional cases.

**ITL 375C. The Antihero in the Twentieth-Century Italian Novel.**

Explore the crisis of certainties at the turn of the last century and the end of the role of the hero, through the examination of major Italian novels. Three lecture hours a week for one semester. Italian 375 (Topic 2) and 375C may not both be counted. Prerequisite: Italian 320 with a grade of at least C.

**ITL 375F. Writing Fascism: Writing the Resistance.**

Examine major novels dealing with the Italian narrative on World War II and the resistance. Three lecture hours a week for one semester. Italian 375 (Topic 1) and 375F may not both be counted. Prerequisite: Italian 320 with a grade of at least C.

**ITL 375N. Neorealism and its Legacy.**

Analyze the legacy of neorealism in Italian literature and cinema from approximately the late 1940s to the early 1950s. Three lecture hours a week for one semester. Italian 375 (Topic 4) and 375N may not both be counted. Prerequisite: Italian 320 with a grade of at least C.

**ITL 375S. Sicily in Literature and Film.**

Examine Sicilian culture through novels and films. Three lecture hours a week for one semester. Italian 375 (Topic 3) and 375S may not both be counted. Prerequisite: Italian 320 with a grade of at least C.

**ITL 379H. Honors Tutorial Course.**

Supervised individual research on a literary, linguistic, or cultural topic, and writing and defense of a thesis under the direction of a committee of two faculty members. Conference course. Prerequisite: Admission to the Italian Honors Program.

**Graduate Courses****ITL 380C. Italian for Graduate Students in Other Departments.**

No auditors permitted. Intensive reading course, emphasizing basic grammar and vocabulary with translation practice. Three lecture hours a week for one semester. The symbol CR fulfills the foreign language requirement for the Doctor of Philosophy degree in some departments. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**ITL 380L. History of the Italian Language.**

Survey of the development of Italian from spoken Latin to the present day. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**ITL 180P. Introduction to Studies in Literature and Culture.**

Proseminar in methods of study and research in Italian Studies. One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ITL 381. Readings in Italian Literature.**

Intensive study of a period or a major writer. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and six semester hours of upper-division coursework in Italian.

### **ITL 382. Topics in Italian Studies.**

Study of various aspects and periods of Italian culture and society. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ITL 383K. Studies in Italian Language.**

Synchronic approach to the modern Italian language: phonology, morphology, syntax, lexicology, stylistics. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ITL 385L. Conference Course in Italian Language and Literature.**

For students needing specialized courses not normally or not often included in the regular course offerings. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of the graduate adviser.

### **ITL 390K. Studies in Italian Literature through the Renaissance.**

Intensive study of a particular writer, school, or literary movement. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ITL 390L. Studies in Italian Literature since the Renaissance.**

Intensive study of a particular writer, school, or literary movement. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **ITL 395L. Comprehensive Examination Preparation.**

Restricted to doctoral students in the Department of French and Italian. Supervised preparation for the comprehensive examination for the doctoral degree. The equivalent of three lecture hours a week. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; consent of the graduate adviser; and satisfactory completion of all course requirements for the doctoral degree.

### **ITL 396K. Comparative Romance Linguistics.**

General survey of the development of spoken Latin in Italy, Spain, Portugal, and France; main traits of phonology, morphology, and syntax in each modern derivative language. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in languages and consent of instructor and the graduate adviser.

**Topic 1: Introduction to Romance Linguistics.** Same as French 396K (Topic 1: Introduction to Romance Linguistics), Linguistics 383 (Topic 3: Introduction to Romance Linguistics), Portuguese 396K (Topic 2: Introduction to Romance Linguistics), and Spanish 396K (Topic 2: Introduction to Romance Linguistics).

### **ITL 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Italian and consent of the graduate adviser; for 698B, Italian 698A.

### **ITL 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Italian and consent of the graduate adviser.

### **ITL 398T. Supervised Teaching in Italian.**

Practical exercises in second-language instruction and closely supervised classroom teaching, supported by theoretical studies of second-language learning. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **ITL 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Japanese Courses**

## **Japanese: JPN**

### **Lower-Division Courses**

#### **JPN 601D. Japanese I.**

Not open to native speakers of Japanese. Designed for students with no previous coursework in Japanese. Emphasis on basic skills in listening and speaking Japanese and in reading and writing hiragana, katakana, and kanji. Introduction to Japanese culture. Includes computer-assisted instruction. Six lecture hours a week for one semester. Japanese 601D and 506 may not both be counted.

#### **JPN 506. First-Year Japanese I.**

Not open to native speakers of Japanese. Six class hours a week for one semester. Japanese 601D and 506 may not both be counted.

#### **JPN 507. First-Year Japanese II.**

Not open to native speakers of Japanese. Six class hours a week for one semester. Japanese 507 and 610D may not both be counted. Prerequisite: Japanese 506 with a grade of at least C.

#### **JPN 610D. Japanese II.**

Not open to native speakers of Japanese. Expands on skills acquired in Japanese 601D. Includes computer-assisted instruction. Six lecture hours a week for one semester. Japanese 507 and 610D may not both be counted. Prerequisite: Japanese 601D with a grade of at least C.

#### **JPN 611D. Intermediate Japanese.**

Not open to native speakers of Japanese. Intermediate level of competency in Japanese to enable students to function in a variety of real-life contexts. Six lecture hours a week for one semester. Japanese 611D and 412K may not both be counted. Japanese 611D and 412L may not both be counted. Prerequisite: Japanese 610D with a grade of at least C.

#### **JPN 412K. Second-Year Japanese I.**

Not open to native speakers of Japanese. Five class hours a week for one semester. Japanese 611D and 412K may not both be counted. Prerequisite: Japanese 507 or the equivalent with a grade of at least C.

#### **JPN 412L. Second-Year Japanese II.**

Not open to native speakers of Japanese. Five class hours a week for one semester. Japanese 611D and 412L may not both be counted. Japanese 412L and 317C may not both be counted. Prerequisite: Japanese 412K or the equivalent with a grade of at least C.

**JPN 317C. Japanese Grammar, Composition, and Conversation.**

Not open to native speakers of Japanese. Designed to prepare students for specialized advanced Japanese language courses. Three lecture hours a week for one semester. Japanese 412L and 317C may not both be counted. Prerequisite: Japanese 611D with a grade of at least C.

**JPN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Japanese.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**Upper-Division Courses**

**JPN 320K. Readings in Modern Japanese I.**

Not open to native speakers of Japanese. Exploration of different types of texts written in a variety of grammar structures with rich vocabulary. Examination of similarities and differences between various aspects of Japanese culture and the student's own culture. Three lecture hours a week for one semester. Prerequisite: Japanese 412L or 317C with a grade of at least C.

**JPN 320L. Readings in Modern Japanese II.**

Not open to native speakers of Japanese. Continued development of Japanese reading and comprehension skills using authentic print and web-based resources. Three lecture hours a week for one semester. Prerequisite: Japanese 320K with a grade of at least C.

**JPN 322. Classical Japanese.**

An introduction to the principal elements of premodern literary or "classical" Japanese (bungo), the standard form of the written language. A survey of the principal linguistic features, close reading, and translation of a variety of prose and poetry texts. Three lecture hours a week for one semester. Prerequisite: Japanese 320L with a grade of at least C.

**JPN 325K. Advanced Conversation I.**

Not open to native speakers of Japanese. Conversations on more complex situations and topics, including formal and informal contexts; designed to continue students' development of conversation skills taught in Japanese 412L and 317C. Three lecture hours a week for one semester. Prerequisite: Japanese 412L or 317C with a grade of at least C.

**JPN 325L. Advanced Conversation II.**

Not open to native speakers of Japanese. Continued development of conversation skills taught in Japanese 325K. Three lecture hours a week for one semester. Prerequisite: Japanese 325K with a grade of at least C.

**JPN 326. Business Japanese.**

Not open to native speakers of Japanese. Development of basic business manners and business-related vocabulary and conversation skills appropriate in an office environment. Three lecture hours a week for one semester. Prerequisite: Japanese 412L or 317C with a grade of at least C.

**JPN 327. Advanced Reading and Writing of Kanji Characters.**

Not open to native speakers of Japanese. Building more advanced vocabulary and kanji knowledge through systematic study (recognition, reading, and writing) of kanji. Three lecture hours a week for one semester. Prerequisite: Japanese 412L or 317C with a grade of at least C.

**JPN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Japanese.**

Not open to native speakers of Japanese. This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**JPN 330. Topics in Advanced Japanese.**

Not open to native speakers of Japanese. Fourth-year Japanese readings on special topics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Japanese 320L with a grade of at least C.

**Topic 2: Advanced Readings in Newspaper Articles.** For students with an advanced level of proficiency in Japanese. Conducted in Japanese. Readings from newspaper articles and other authentic materials, including short stories and websites, selected to expand linguistic and social knowledge, vocabulary, and knowledge of kanji.

**Topic 3: Practical Readings in Advanced Japanese.** For students with an advanced level of proficiency in Japanese. Conducted in Japanese. Readings selected to promote a wide variety of reading skills such as scanning, skimming, prediction, reading for details, and reading for meaning. Readings include essays, comic strips, short stories, websites, magazine and newspaper articles, and other authentic materials.

**Topic 4: Reading Japanese Literature.** Japanese 330 (Topic: Reading Japanese Literature) and 330 (Topic 4) may not both be counted.

**JPN 130D. Japanese across Disciplines.**

Reading and discussion of Japanese language materials related to the subject matter of another designated course in Asian studies. Meetings with the instructor will be devoted to the discussion of linguistic problems, literary features, and crucial passages. Individual instruction. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, concurrent enrollment in an appropriate Asian studies course, and written consent of instructor on form obtained from the undergraduate adviser.

**JPN 360. Conference Course in Japanese Language and Literature.**

Not open to native speakers of Japanese. Supervised individual study of selected problems in Japanese language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing, six semester hours of upper-division coursework in Japanese, and written consent of instructor on form obtained from the undergraduate adviser.

**Graduate Courses**

**JPN 381. Conference Course in Japanese Language and Culture.**

Supervised individual study in Japanese language or culture. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor on a form obtained from the graduate coordinator.

**JPN 384. Topics in Japanese Language and Culture.**

Study of various aspects and periods of Japanese language and culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and six semester

hours of upper-division coursework in Japanese with a grade of at least C or consent of instructor; additional prerequisites vary with the topic.

**Topic 3: Modern Japanese Literature.** Only one of the following may be counted: Asian Studies 386 (Topic 2), 384 (Topic 3).

## Professional Courses

# Jewish Studies Courses

## Jewish Studies: J S

### Lower-Division Courses

#### J S 301. Introduction to Jewish Studies.

Same as Anthropology 311D, Middle Eastern Studies 310 (Topic 8), and Religious Studies 313D. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: Jewish Studies: An Introduction), 311D, Jewish Studies 301, 311 (Topic: Jewish Studies: An Introduction), Middle Eastern Studies 310 (Topic: Jewish Studies: An Introduction), 310 (Topic 8), Religious Studies 313 (Topic: Jewish Studies: An Introduction), 313D.

#### J S 304M. Jewish Civilization: Beginnings to 1492.

Same as History 306N (Topic 10), Middle Eastern Studies 310 (Topic 6), and Religious Studies 313M. Introduction to the history, culture, and religion of the Jewish people from around 1000 BC to the end of the medieval period. Subjects may include ancient Israel, late Second Temple sectarianism, the rise of Christianity, rabbinic Judaism, medieval Jewish philosophy, Jewish mysticism, and Hebrew poetry. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Jewish Civilization I), 306N (Topic 10), Jewish Studies 304M, 311 (Topic: Jewish Civilization I), Middle Eastern Studies 310 (Topic: Jewish Civilization: Beginnings to 1492), 310 (Topic 6), Religious Studies 313 (Topic: Jewish Civilization I), 313M.

#### J S 304N. Jewish Civilization: 1492 to the Present.

Same as European Studies 306 (Topic 4), History 306N (Topic 11), and Religious Studies 313N. Subjects may include trends toward secularization, the emancipation of European Jewry, the emergence of American Jewry, the Holocaust, the establishment of the State of Israel, and the Arab-Israeli conflict. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Jewish Civilization: 1492 to the Present), 306 (Topic 4), History 306N (Topic 11), Jewish Studies 304N, 311 (Topic: Jewish Civilization: 1492 to the Present), Religious Studies 313 (Topic: Jewish Civilization: 1492 to the Present), 313N.

#### J S 305D. Introduction to Jewish Latin America.

Same as Anthropology 311E, Latin American Studies 315 (Topic 3), and Religious Studies 313E. Historical and cultural analysis of how Jews constructed lives and communities in predominantly Hispanic, Catholic countries of Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: Introduction to Jewish Latin America), 311E, Jewish Studies 311 (Topic: Introduction to Jewish Latin America), 305D, Latin American Studies 310 (Topic: Intro to Jewish Latin America), 315 (Topic: Intro to Jewish Latin America), 315 (Topic 3), Religious Studies 313 (Topic: Introduction to Jewish Latin America), 313E.

#### J S 306E. The Rise of Christianity.

Same as Classical Civilization 318 and Religious Studies 318. Introduction to the origins and development of Christianity. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 318, Jewish Studies 306E, 311 (Topic: The Rise of Christianity), 311 (Topic 3), Religious Studies 318.

#### J S 307. Introduction to Holocaust and Genocide Studies.

Same as Government 307 and History 307Q. Examine interdisciplinary perspectives (including historical, political, socio-psychological, and cultural methods and insights) on genocide as a global phenomenon. Three lecture hours a week for one semester. Only one of the following may be counted: Government 307, History 307Q, Jewish Studies 307.

#### J S 310R. Introduction to Middle East Religions.

Same as Islamic Studies 310R, Middle Eastern Studies 310R, and Religious Studies 310R. Introduction to the religious landscape of the Middle East including the various expressions of Eastern Christianity, Islam, and Judaism as well as Zoroastrianism. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 310R, Jewish Studies 310R, Middle Eastern Studies 310R, Religious Studies 310R.

#### J S 311. Topics in Jewish Studies.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 2: Judaism, Christianity, and Islam: An Introduction.** Same as History 304R, Islamic Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction), and Religious Studies 304. Examines the intertwined historical developments of the religions of Judaism, Christianity, and Islam, and explores the principal beliefs and practices of Jews, Christians, and Muslims.

**Topic 4: Introduction to the Old Testament.** Same as Core Texts and Ideas 305G, Middle Eastern Studies 310C, and Religious Studies 313C. Introduction to the many interpretations of the Hebrew Bible (the Old Testament) and its meaning in the context of its historical and cultural setting in the ancient Near East. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 305G, Jewish Studies 311 (Topic 4), Middle Eastern Studies 310 (Topic 3), 310C, Religious Studies 313C.

**Topic 7: The History of Israel.** Same as History 311J and Middle Eastern Studies 311. An introduction to the history of Israel, from the emergence of the modern Zionist movement beginning in 1881 to the present. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: History of Israel), 311J, Jewish Studies 311 (Topic: History of Israel), 311 (Topic 7), Middle Eastern Studies 310 (Topic: History of Israel), 311.

**Topic 9: American Jews: The Yiddish Experience.** Same as American Studies 315 (Topic 6), German, Scandinavian, and Dutch Studies 310 (Topic 1), and Religious Studies 316E. Focuses on over a century of Yiddish-based contributions to American literature, music, and film, including works by Isaac Bashevis Singer, Michael Chabon, Woody Allen, and the Marx Brothers. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic 4), 315 (Topic 6); German, Scandinavian, and Dutch Studies 310 (Topic 1); Jewish Studies 311 (Topic 6), 311 (Topic 9); Religious Studies 313 (Topic 1), 316K (Topic 2), 316E.

#### J S 311C. The Roots of Religious Toleration.

Same as European Studies 306 (Topic 3), History 309J, and Religious Studies 306D. Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 310 (Topic: Roots of Religious Toleration), European Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 3), History 309J, 317N (Topic: Roots of Religious Toleration), 317N (Topic 1), Jewish Studies 311 (Topic: Roots of Religious Toleration), 311 (Topic 5), 311C, Religious Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 1), 306D.

### **J S 311E. Comparative Religious Ethics.**

Same as Religious Studies 306C. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 311 (Topic: Comparative Religious Ethics), 311E, Religious Studies 306 (Topic: Comparative Religious Ethics), 306C.

## **Upper-Division Courses**

### **J S 362. Independent Research in Jewish Studies.**

Tutorially directed research in Jewish studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **J S 363. Topics in the Humanities and Arts.**

Three lecture hours a week for one semester; additional hours may be required for some topics. Jewish Studies 361 and 363 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### **Topic 7: Love and the State in Contemporary Israeli Literature.**

Same as Middle Eastern Languages and Cultures 321 (Topic 6) and Middle Eastern Studies 342 (Topic 6). Only one of the following may be counted: Comparative Literature 323 (Topic: Love and State in Contemporary Israeli Literature), English 322 (Topic: Love and State in Contemporary Israeli Literature), Jewish Studies 363 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 6), Middle Eastern Studies 342 (Topic 6), Women's and Gender Studies 340 (Topic: Love and State in Contemporary Israeli Literature). Additional prerequisite: Upper-division standing.

**Topic 8: Mizrahi Writing in Israel.** Same as Hebrew 346 (Topic 9) and Middle Eastern Studies 342 (Topic 9). Only one of the following may be counted: Hebrew 346 (Topic 9), Jewish 363 (Topic 8), Middle Eastern Studies 342 (Topic 9). Additional prerequisite: Upper-division standing, and Hebrew 412L (or 312L) or 320L with a grade of at least C.

**Topic 10: The Sacred and the Secular in Contemporary Jewish Literature.** Same as Middle Eastern Languages and Cultures 321 (Topic 8), Middle Eastern Studies 342 (Topic 8), and Religious Studies 353L. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8), Middle Eastern Studies 342 (Topic 8), Religious Studies 353 (Topic 3), 353L. Additional prerequisite: Upper-division standing.

**Topic 11: Women and the Holocaust.** Same as Comparative Literature 323 (Topic 19), European Studies 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, and Women's and Gender Studies 340 (Topic 50). Introduction to both the history of Jewish and German women during World War II and the Holocaust, and to women's narratives and self-representations of this period. Historical sources, memoirs, films, and interviews will be used as source material. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women's Narratives of the Holocaust and World War II), 323 (Topic 19), European Studies 346 (Topic: Women's Narratives of the Holocaust and World War II), 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Germanic Civilization 323E (Topic: Women's Narratives of the Holocaust and World War II), Jewish Studies 363 (Topic 11), Women's and Gender Studies 340 (Topic: Women's Narratives of the Holocaust and World War II), 340 (Topic 50). Additional prerequisite: Upper-division standing.

**Topic 15: Jewish Voices from Latin America.** Same as Latin American Studies 328 (Topic 4) and Spanish Civilization 320C (Topic 1). An introduction to Jewish writers from Brazil and Latin America, with an emphasis on those whose works portray the situation of the Jewish communities in their respective cities and countries. Only one of the following may be counted: Jewish Studies 363 (Topic 15), 363E, Latin

American Studies 328 (Topic 4), 370S (Topic 32), Spanish 355 (Topic 3), 355D, Spanish Civilization 320C (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 17: Israel Through Its Literature.** Same as Comparative Literature 323 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 5), and Middle Eastern Studies 342 (Topic 5). Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Israeli Literature), Comparative Literature 323 (Topic 15), English 322 (Topic: Introduction to Israeli Literature), Jewish Studies 363 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic 5), Middle Eastern Studies 342 (Topic 5). Additional prerequisite: Upper-division standing.

**Topic 18: Jerusalem in Israeli Literature.** Same as Hebrew 346 (Topic 8: Jerusalem in Israeli Literature). Additional prerequisite: Upper-division standing and Hebrew 412L.

**Topic 19: Postmodernist Israeli Literature.** Same as Middle Eastern Languages and Cultures 321 (Topic 7) and Middle Eastern Studies 342 (Topic 7). Study of the first decades of Israeli literature. Themes include the establishment of a new state in the aftermath of the Holocaust, conflict between Israel and Arab nations, and conflict between Israelis and Palestinians. Only one of the following may be counted: Comparative Literature 323 (Topic: Postmodernist Israeli Literature), English 322 (Topic: Postmodernist Israeli Literature), Jewish Studies 363 (Topic 19), Middle Eastern Languages and Cultures 321 (Topic 7), 342 (Topic 7). Additional prerequisite: Upper-division standing.

**Topic 21: Introduction to the Music of the Middle East.** Same as Music 342 (Topic 7). Only one of the following may be counted: Islamic Studies 373 (Topic: Introduction to Music of the Middle East), Jewish Studies 363 (Topic: Introduction to Music of the Middle East), 363 (Topic 21), Middle Eastern Languages and Cultures 321 (Topic: Introduction to Music of the Middle East), Middle Eastern Studies 328 (Topic: Introduction to Music of the Middle East), 342 (Topic: Introduction to Music of the Middle East), Music 342 (Topic: Introduction to Music of the Middle East), 342 (Topic 7).

**Topic 22: Comparative Jewish Literature: Israel, France, and the United States.** Same as Middle Eastern Languages and Cultures 321 (Topic 38) and Middle Eastern Studies 342 (Topic 38). Only one of the following may be counted: Jewish Studies 363 (Topic 22), Middle Eastern Languages and Cultures 321 (Topic 38), Middle Eastern Studies 342 (Topic 38). Additional prerequisite: Upper-division standing.

**Topic 23: Israel and Palestine: A Cultural Perspective.** Same as Comparative Literature 323 (Topic 64), Middle Eastern Languages and Cultures 321 (Topic 40), and Middle Eastern Studies 342 (Topic 56). Only one of the following may be counted: Comparative Literature 323 (Topic: Israel/Palestine: Cultrl Persp), 323 (Topic 64), Jewish Studies 363 (Topic: Israel/Palestine: Cultrl Persp), 363 (Topic 23), Middle Eastern Languages and Cultures 321 (Topic: Israel/Palestine: Cultrl Persp), 321 (Topic 40), Middle Eastern Studies 342 (Topic: Israel/Palestine: Cultrl Persp), 342 (Topic 56). Additional prerequisite: Upper-division standing.

**Topic 24: Divine Persuasion in Biblical Times and Place.** Same as Middle Eastern Studies 342 (Topic 57) and Rhetoric and Writing 330E (Topic 13). Explore the use of persuasive strategies in an ancient and non-Western culture, that of the Hebrew Bible. Using rhetorical techniques, analyze three types of texts: narratives of interactions between ordinary people and God; interactions between people, God, and authorized prophets; and prayers in prose and poetry. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic: Persuasion Bible Time/Place), 363 (Topic 24), Middle Eastern Studies 342 (Topic: Persuasion Bible Time/Place), 342 (Topic 57), Rhetoric and Writing 330E (Topic: Persuasion Bible Time/Place), 330E (Topic 13). Additional

prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

**Topic 25: Jewish Folklore.** Same as Anthropology 325T, German, Scandinavian, and Dutch Studies 361W, and Religious Studies 357P. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Jewish Folklore), 325T, German, Scandinavian, and Dutch Studies 360 (Topic: Jewish Folklore), 361W, Jewish Studies 363 (Topic: Jewish Folklore), 363 (Topic 25), Religious Studies 357 (Topic: Jewish Folklore), 357P. Additional prerequisite: Upper-division standing.

**Topic 26: Debating Genesis.** Same as Middle Eastern Languages and Cultures 321D, Middle Eastern Studies 342 (Topic 65), and Religious Studies 353M. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic: Debating Genesis), 363 (Topic 26), Middle Eastern Languages and Cultures 321 (Topic: Debating Genesis), 321D, Middle Eastern Studies 342 (Topic: Debating Genesis), 342 (Topic 65), Religious Studies 353 (Topic: Debating Genesis), 353M. Additional prerequisite: Upper-division standing.

**Topic 27: Jewish Identities In the Americas.** Examine the work of Jewish creative intellectuals from the United States, Latin America, and Canada from a comparative perspective. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic: Jewish Identities: Americas), 363 (Topic 27), Liberal Arts Honors 350 (Topic: Jewish Identities: Amers), 351T. Additional prerequisite: Upper-division standing.

**Topic 28: Biblical Prophecy.** Same as Core Texts and Ideas 354P, Middle Eastern Studies 342 (Topic 37), and Religious Studies 353N. An introduction to the diversity of prophetic literature in the Old Testament, its historical development, social context, and Near Eastern parallels. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354P, 375 (Topic: Biblical Prophecy), Jewish Studies 363 (Topic: Biblical Prophecy), 363 (Topic 28), Middle Eastern Languages and Cultures 321 (Topic 24), Middle Eastern Studies 342 (Topic 37), Religious Studies 353 (Topic: Biblical Prophecy), 353N, 361 (Topic: Biblical Prophecy). Additional prerequisite: Upper-division standing.

**Topic 29: The Book of Job.** Same as Core Texts and Ideas 354J, Middle Eastern Studies 342 (Topic 67), and Religious Studies 365J. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354J, 375 (Topic: The Book of Job), Jewish Studies 363 (Topic: The Book of Job), 363 (Topic 29), Middle Eastern Studies 342 (Topic: The Book of Job), 342 (Topic 67), Religious Studies 361 (Topic: The Book of Job), 365 (Topic: The Book of Job), 365J. Additional prerequisite: Upper-division standing.

**Topic 30: Law and Justice in the Bible.** Same as Core Texts and Ideas 354L, Middle Eastern Studies 342 (Topic 66), and Religious Studies 353K. Examine the legal traditions of the Torah (Pentateuch) and what they reveal about the practice of law and justice in ancient Israel and the wider biblical world. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354L, Jewish Studies 363 (Topic 30), Middle Eastern Studies 342 (Topic: Law/Justice in the Bible), 342 (Topic 66), Religious Studies 353 (Topic: Law/Justice in the Bible), 353K. Additional prerequisite: Upper-division standing.

### **J S 363D. Abraham and Abrahamic Religions.**

Same as Core Texts and Ideas 354, Middle Eastern Studies 342 (Topic 52), and Religious Studies 353G. Examines the figure of Abraham as portrayed in the Bible and the reception of that portrayal in Judaism, Christianity, and Islam. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354, 375 (Topic: Abraham & Abrahamic Religions), Jewish Studies 363 (Topic: Abraham & Abrahamic Religions), 363D, Middle Eastern Studies 342 (Topic: Abraham & Abrahamic Religions), 342 (Topic: 52), Religious

Studies 353 (Topic: Abraham & Abrahamic Religions), 353G. Prerequisite: Upper division standing.

### **J S 363E. Jewish Voices from Latin America.**

Same as Latin American Studies 370S (Topic 32) and Spanish 355D. Overview of popular Jewish writers from Brazil and Spanish America, with special emphasis on those who portray in their work the situation of the Jewish communities of their respective cities and countries. Conducted in Spanish. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic 15), 363E, Latin American Studies 328 (Topic 4), 370S (Topic 32), Spanish 355 (Topic 3), 355D, Spanish Civilization 320C (Topic 1). Prerequisite: Spanish 327C (or 327G) or 327N, and 328C.

### **J S 364. Topics in History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Anti-Semitism in History and Literature.** Same as Comparative Literature 323 (Topic 42), European Studies 346 (Topic 29), and German, Scandinavian, and Dutch Studies 361L. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Anti-Semitism in History and Literature), 346 (Topic 29), Comparative Literature 323 (Topic: Anti-Semitism in History and Literature), 323 (Topic 42), German, Scandinavian, and Dutch Studies 360 (Topic: Anti-Semitism in History and Literature), 361L, Jewish Studies 361 (Topic: Anti-Semitism in History and Literature), 364 (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 3: The Bible and History.** Same as Religious Studies 354D. The critical uses of biblical and extrabiblical data in the reconstruction of the history of the biblical period. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Bible and History), Jewish Studies 364 (Topic 3), Religious Studies 354D. Additional prerequisite: Upper-division standing.

**Topic 4: The Dead Sea Scrolls.** Same as Ancient History and Classical Civilization 330 (Topic 1), History 364E, Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), and Religious Studies 353D. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic 1), History 364G (Topic 3), 364E, Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), Religious Studies 353D. Additional prerequisite: Upper-division standing.

**Topic 5: The Spanish Inquisition.** Same as European Studies 346 (Topic 11), History 350L (Topic 77), and Religious Studies 357L. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 11), History 350L (Topic 77), Jewish Studies 364 (Topic 5), Religious Studies 357 (Topic 10), 357L. Additional prerequisite: Upper-division standing.

**Topic 6: Introduction to the Holocaust.** Same as European Studies 346 (Topic 17), History 362D, and Russian, East European, and Eurasian Studies 335 (Topic 17). Examines the mass killing of Jews and other victims in the context of Nazi Germany's quest for race and space during World War II. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Introduction to the Holocaust), 346 (Topic 17), History 362D, 362G (Topic: Introduction to the Holocaust), 362G (Topic 3), Jewish Studies 364 (Topic: Introduction to the Holocaust), 364 (Topic 6), Russian, East European, and Eurasian Studies 335 (Topic: Introduction to the Holocaust), 335 (Topic 17). Additional prerequisite: Upper-division standing.

**Topic 7: Jews of Eastern Europe.** Same as History 362R, Religious Studies 357E, and Russian, East European, and Eurasian Studies 335

(Topic 23). Explores the history and culture of Jews in Eastern Europe. Three lecture hours a week for one semester. Only one of the following may be counted: History 362G (Topic 8), 362R, Jewish Studies 364 (Topic 7), Russian, East European, and Eurasian Studies 335 (Topic 23), Religious Studies 357 (Topic 13), 357E. Additional prerequisite: Upper-division standing.

**Topic 8: Southeast Europe in the Twentieth Century.** Same as European Studies 346 (Topic 18), History 362S, and Russian, East European, and Eurasian Studies 335 (Topic 18). Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 18), History 362G (Topic 9), 362S, Jewish Studies 364 (Topic 8), Russian, East European, and Eurasian Studies 335 (Topic 18). Additional prerequisite: Upper-division standing.

**Topic 9: Spinoza and Modernity.** Same as Core Texts and Ideas 321F, European Studies 346 (Topic 21), History 362P, and Religious Studies 357M. Introduction to the core of Spinoza's writings and the diverse reactions they have elicited. Examines Spinoza's refusal of mind-body dualism, as well as a transcendent god or ideal as a way of understanding Spinoza's concepts and ideas. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 321F, European Studies 346 (Topic 21), 347 (Topic: Spinoza and Modernity), History 362P, Jewish Studies 364 (Topic 9), Philosophy 354 (Topic 7), Religious Studies 357 (Topic 8), 357M. Additional prerequisite: Upper-division standing.

**Topic 10: The Church and the Jews.** Same as European Studies 346 (Topic 28), History 361D, and Religious Studies 357O. Examination of the complex relationship between the Western Church and Jews over two millennia. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: The Church and the Jews), 346 (Topic 28), History 361D, 362G (Topic 14), Jewish Studies 364 (Topic 10), Religious Studies 357 (Topic 9), 357O. Additional prerequisite: Upper-division standing.

**Topic 11: World War II in Eastern Europe.** Same as European Studies 346 (Topic 12), History 350L (Topic 79), and Russian, East European, and Eurasian Studies 335 (Topic 19). Examines the war in Eastern Europe with a particular emphasis on occupation, collaboration, and resistance; the Holocaust; and the connection between ethnic cleansing, population transfer, and the establishment of communism in postwar Eastern Europe. Only one of the following may be counted: European Studies 346 (Topic: World War II in Eastern Europe), 346 (Topic 12), History 350L (Topic: World War II in Eastern Europe), History 350L (Topic 79), Jewish Studies 364 (Topic: World War II in Eastern Europe), 364 (Topic 11), Russian, East European, and Eurasian Studies 335 (Topic: World War II in Eastern Europe), 335 (Topic 19).

**Topic 12: Germany since Hitler.** Same as History 350L (Topic 56). Analyze the effects of Hitler's dictatorship upon German society, politics, economy and culture. Only one of the following may be counted: Jewish Studies 364 (Topic: Germany Since Hitler), 364 (Topic 12), History 350L (Topic 56). Additional prerequisite: Upper-division standing.

**Topic 13: Origins of Monotheism.** Same as Middle Eastern Studies 343 (Topic 10) and Religious Studies 358O. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 364 (Topic: Origins of Monotheism), 364 (Topic 13), Middle Eastern Studies 343 (Topic: Origins of Monotheism), 343 (Topic 10), Religious Studies 358 (Topic: Origins of Monotheism), 358O. Additional prerequisite: Upper-division standing.

**Topic 14: Austin Jews in the Civil Rights Era.** Same as American Studies 324J and Anthropology 325U. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: UT Jews in Civil Rights Era), 324J, Anthropology 325L (Topic: UT Jews in Civil Rights Era), 325U, Jewish Studies

364 (Topic: UT Jews in Civil Rights Era), 364 (Topic 14). Additional prerequisite: Upper-division standing.

**Topic 15: The Five Books of Moses.** Same as Core Texts and Ideas 354F, Middle Eastern Studies 342 (Topic 68), and Religious Studies 353R. Study the socio-historical circumstances that gave shape to the first five books of the Bible: Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. Examine how these five books achieved the status of sacred literature. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354F, 375 (Topic: The Five Books of Moses), Jewish Studies 364 (Topic: The Five Books of Moses), 364 (Topic 15), Middle Eastern Studies 342 (Topic: The Five Books of Moses), 342 (Topic 68), Religious Studies 353 (Topic: The Five Books of Moses), 353R, 361 (Topic: The Five Books of Moses). Additional prerequisite: Upper-division standing.

**Topic 16: Jews: Nation or People.** Same as History 366D and Middle Eastern Studies 343 (Topic 16). Three lecture hours a week for one semester. Only one of the following may be counted: History 366D, 366N (Topic: Jews: Nation or People?), Jewish Studies 364 (Topic: Jews: Nation or People?), 364 (Topic 16), Middle Eastern Studies 343 (Topic: Jews: Nation or People?), 343 (Topic 16). Additional prerequisite: Upper-division standing

**Topic 17: Restitution and Restorative Justice after the Holocaust.** Same as European Studies 346 (Topic 35), History 366E, and Middle Eastern Studies 343 (Topic 17). Examine attempts to find a measure of justice after the Holocaust. Explore themes of human rights and international law. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Holocaust/Restitun/Justice), 346 (Topic 35), History 366E, 366N (Topic: Holocaust/Restitun/Justice), Jewish Studies 364 (Topic: Holocaust/Restitun/Justice), 364 (Topic 17), Middle Eastern Studies 343 (Topic: Holocaust/Restitun/Justice), 343 (Topic 17). Additional prerequisite: Upper-division standing.

## J S 365. Topics in the Social Sciences.

Three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: America and the Holocaust.** Same as American Studies 321 (Topic 4) and History 356R. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic 4), 370 (Topic: America and the Holocaust), History 350L (Topic: America and the Holocaust), 356R, 365G (Topic: America and the Holocaust), Jewish Studies 361 (Topic: America and the Holocaust), 365 (Topic 1), Liberal Arts Honors 350 (Topic: America and the Holocaust). Additional prerequisite: Upper-division standing.

**Topic 4: Jewish Immigrant Culture in America.** Prerequisite: Upper-division standing.

**Topic 10: Israel: Society and Politics.** Same as Government 366I. Analysis of Israeli politics and society in a comparative perspective with a major focus on the social and political cleavages in Israel. Three lecture hours a week for one semester. Only one of the following may be counted: Government 365N (Topic 16), 366I, Jewish Studies 365 (Topic 10). Additional prerequisite: Six semester hours of lower-division coursework in Government.

**Topic 11: Representation of Jews in the American Public Sphere.** Same as Anthropology 325D and Religious Studies 346L. Examines how Jews have been represented and constituted in American public culture as a race, religion, and/or nation through distinct institutions and display practices. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325D, 325L (Topic 13), Jewish Studies 365 (Topic 11), Religious Studies 346 (Topic 8), 346L. Additional prerequisite: Upper-division standing.

**Topic 12: American Jewish Material Culture.** Same as Anthropology 325O and Religious Studies 346N. Examines the interplay between

material culture and Jewish identity and thought in contemporary America. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic 17), 325O, Jewish Studies 365 (Topic 12), Religious Studies 346 (Topic 9), 346N. Additional prerequisite: Upper-division standing.

**Topic 13: Anti-Semitism.** Same as History 366N (Topic 15) and Sociology 321S. Surveys trends in Judeophobia/anti-Semitism over 2,500 years in both Christian and non-Christian societies. Designed to use anti-Semitism as way to explore more general ideas in social theory such as boundary making; models of racial, ethnic, and cultural conflict; and the role of intellectual and scientific elites. Three lecture hours a week for one semester. Only one of the following may be counted: History 366N (Topic: Anti-Semitism), 366N (Topic 15), Jewish Studies 365 (Topic: Anti-Semitism), 365 (Topic 13), Sociology 321K (Topic: Anti-Semitism), 321S. Additional prerequisite: Upper-division standing.

**Topic 14: Holocaust Aftereffects.** Same as Comparative Literature 323 (Topic 40), European Studies 346 (Topic 23), German, Scandinavian, and Dutch Studies 360 (Topic 1), Religious Studies 357V, and Women's and Gender Studies 340 (Topic 66). Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 40), European Studies 346 (Topic 23), German, Scandinavian, and Dutch Studies 360 (Topic 1), Jewish Studies 365 (Topic 14), Liberal Arts Honors 350 (Topic: Holocaust Aftereffects), 351Q, Religious Studies 357 (Topic 18), 357V, Women's and Gender Studies 340 (Topic: Holocaust Aftereffects), 340 (Topic 66). Additional prerequisite: Upper-division standing.

**Topic 16: Jewish Cuba.** Same as Anthropology 325V, Latin American Studies 324S, and Religious Studies 366E. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Jewish Cuba), 325V, Jewish Studies 365 (Topic: Jewish Cuba), 365 (Topic 16), Latin American Studies 324L (Topic: Jewish Cuba), 324S, Religious Studies 366 (Topic: Jewish Cuba), 366E. Additional prerequisite: Upper-division standing.

**Topic 17: Spatializing Culture.** Only one of the following may be counted: Jewish Studies 365 (Topic: Spatializing Culture-Hon), 365 (Topic 17), Liberal Arts Honors 350 (Topic: Spatializing Culture). Additional prerequisite: Upper-division standing.

### **J S 365C. Multicultural Israel.**

Same as Anthropology 322D and Middle Eastern Studies 341 (Topic 8). Examines the complex social fabric that comprises contemporary Israeli society, and that shapes Israeli identity, practice and politics. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322D, 325L (Topic: Multicultural Israel), Jewish Studies 365 (Topic: Multicultural Israel), 365C, Middle Eastern Studies 341 (Topic: Multicultural Israel), 341 (Topic 8). Prerequisite: Upper division standing.

### **J S 365D. Cultural Geographies of Israel.**

Same as Anthropology 322G and Middle Eastern Studies 341 (Topic 10). Examines critical spatial theory, landscape phenomenology, histories of Zionist architecture and urban planning as applied to Israel from the Yishuv period to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322G, Jewish Studies 311 (Topic: Israel: Space/Place/Landscape), 365D, Middle Eastern Studies 341 (Topic 10). Prerequisite: Upper division standing.

### **J S 375. Senior Seminar.**

Intensive study and research on selected topics in Jewish studies, with on-going, in-class presentations for critique by fellow students and the

instructor. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and consent of the Jewish studies adviser.

### **J S 679H. Honors Tutorial Course.**

Restricted to Jewish studies majors. Supervised individual reading and research for one semester, followed by writing a substantial honors thesis during the second semester. Conference course for two semesters. Prerequisite: For 679HA, admission to the Jewish Studies Honors Program; for 679HB, Jewish Studies 679HA.

## **Graduate Courses**

### **J S 383. Topics in Jewish Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites may vary with the topic and are given in the Course Schedule.

## **Professional Courses**

## **Journalism Courses**

### **Journalism: J**

#### **Lower-Division Courses**

#### **J 301F (TCN: COMM 2302). Fundamental Issues in Journalism.**

Examination of major issues facing the news media in a democratic society and the exploration of digital technology on the future of news gathering, including ethics, institutions, effects, and standards of journalistic performance. Three lecture hours a week for one semester.

#### **J 302F. Digital Storytelling Basics.**

Explores the mindsets and skill sets of digital journalism. Covers subjects like: how technology helps journalists do their jobs; how traditional journalistic values and ethics relate to the digital world; how to explore new trends in journalism; how to report and tell stories in multiple ways; and how to be comfortable with analyzing and engaging online audiences. Three lecture hours and one and one-half laboratory hours a week for one semester.

#### **J 308C. Sports, Media, and Society.**

Restricted to non-journalism majors. An examination of historical and contemporary issues regarding the sporting world's interaction with media production, including journalism, talk radio and social media. Three lecture hours a week for one semester.

#### **J 308D. Data, Privacy, and You.**

Restricted to non-journalism majors. Explores approaches to understanding what some have termed 'datafication'. Covers literacy of these types of data as well as the ways in which these data are transmitted, stored, compiled, aggregated, analyzed, and used in predictive analytics. Examines privacy aspects in terms of the increased blurring between the private and public in spaces such as social media and explores the implication of this on news production and consumption. Three lecture hours a week for one semester.

#### **J 308F. Analyzing Media Bias.**

Restricted to non-journalism majors. Critical analysis of the ways news is presented, misrepresented and critiqued, with an emphasis on perceived bias in the news media. Three lecture hours a week for one semester.

#### **J 308J. Becoming Citizen Journalists.**

Restricted to non-journalism majors. Covers the basics of journalism for students who are interested in sharing truthful stories to a public audience, but do not intend to pursue a career in the profession. Uses

digital and social media tools. Explores three subjects: how to find and gather the best factual information, how to present it in clear and engaging ways, and how to make ethical decisions that serve the needs of the audience and democracy. Three lecture hours a week for one semester. Journalism 308J or 358C may not both be counted.

#### **J 308L. Media and News Literacy.**

Restricted to non-journalism majors. Analyze the information, values, and underlying messages conveyed via media. Examine the accuracy of those messages and explore how media shapes views of politics, culture and society. Three lecture hours a week for one semester.

#### **J 308M. Society, Media, and Identity.**

Restricted to non-journalism majors. An analysis of how U.S. media - especially the news industry, film, television and social media - influence culture, and vice versa. Uses readings and observation to recognize that the stories media tell influence identities such as race, ethnicity, gender, religion and sexual orientation. Three lecture hours a week for one semester.

#### **J 308N. Computer Concepts and Internet Technologies.**

Restricted to non-journalism majors. An introduction to the scope, significance, history, and social implications of data processing on systems and networks. Examine programming languages, elements of a software system, databases, computer networks, and Internet security. Explore hardware concepts including number systems, data representation, central processor, storage, input/output, and system configurations. Three lecture hours a week for one semester.

#### **J 308S (TCCN: COMM 1307). Introduction to Media Studies.**

Examine the historical, cultural, political, economic, and international characteristics of journalism, film, television, digital media, and other media in society. Three lecture hours a week for one semester. Journalism 308S and Radio-Television-Film 305 may not both be counted.

#### **J 308T. Topics in Journalism.**

Restricted to non-journalism majors. Contemporary social, political, and intellectual concerns in the practice of journalism and media. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **J 310F. Reporting: Words.**

Reporting, writing, and editing skills for print, online, mobile, and broadcast. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Journalism 301F and 302F with a grade of at least C- in each.

#### **J 310K. Visual Literacy.**

Introduction to the visual concerns of message design and interpretation, including their bases in theories of visual perception, semiotics, and media practice. Three lecture hours a week for one semester.

#### **J 311F. Reporting: Images.**

Video and images for web and broadcast, including design principles, visual perception, typography, manipulation of images, and photographs. One and one-half lecture hours and three laboratory hours a week for one semester. Journalism 311F and 318C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Journalism 301F and 302F with a grade of at least C- in each.

#### **J 313P. Multimedia News Reporting.**

Restricted to non-journalism majors. Skills-based introduction to journalistic forms of news gathering and writing. Gaining the tools for journalism storytelling. Three lecture hours a week for one semester.

#### **J 313S. Topics in Texas Sports and Media.**

Introduction to various contemporary and historical issues, emphasizing interdisciplinary perspectives and critical discourse. Three lecture hours a week for one semester. Communication 310 and Journalism 313S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### **J 315R. Contemporary Representation in Media.**

Restricted to non-journalism majors. An examination of how underrepresented and marginalized groups are portrayed in the news media. Three lecture hours a week for one semester.

#### **J 317. Journalism Practices.**

Restricted to public relations majors. Introduction to writing skills for the media, including readability, clarity, verification, and style. Three lecture hours a week for one semester. Prerequisite: Advertising 318J with a grade of at least B.

#### **J 318P. Podcasting.**

Restricted to journalism majors. Examination and practice of writing and reporting news for audio broadcasts, including podcasts. Three lecture hours and three laboratory hours a week for one semester. Journalism 318P and 331G may not both be counted. Prerequisite: Journalism 310F with a grade of at least B-.

#### **J 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Journalism.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Journalism. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **J 320F. Covering Law Enforcement and Courts.**

Restricted to journalism majors. Specialized reporting, research, and writing skills for investigating and covering incidents and issues occurring in law enforcement, public safety, and criminal justice. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

#### **J 321F. Reporting on City and County Government.**

Restricted to journalism majors. Basic beat reporting skills to navigate city and county governments, and conducting reporting, research, and writing on issues and people at the local level. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

#### **J 322E. Reporting on Elections.**

Restricted to journalism majors. Examine election reporting through instruction and supervised fieldwork. Explore candidate identification and monitoring, campaign coverage, misinformation verification, issues of social justice and election access, and communicating complex political issues to lay audiences. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

**J 322F. Navigating State Government.**

Restricted to journalism majors. Training and instruction in specialized reporting, research, and writing skills as applicable to covering state governments. Analysis of enduring issues and politics at the state level. Fieldwork at the Texas Capitol and state agencies. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

**J 322J. Reporting Social Justice.**

Restricted to journalism majors. Explore how to cover such social justice issues as poverty, inequality and disenfranchisement and the skills needed to research, report and write on people in underrepresented communities. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 322P. Reporting Public Issues.**

Restricted to journalism majors. Specialized reporting, research and writing skills for covering government institutions and public policies. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 323F. Education Reporting.**

Restricted to journalism majors. Covering school districts and higher education to produce stories that humanize the bureaucracy of public education and compellingly depict issues, structures, and policies. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

**J 324C. Reporting Consumer News.**

Restricted to journalism majors. Emphasizes writing and reporting for consumers, finding and honing stories that help people thrive. Practice in writing creative, relevant and vivid descriptions that tell an engaging story. Analysis of community perspective, public sourcing, what's possible, and interdependent dramatic arc. Uses journalistic skills to reward an audience, adapt to a community, and push the envelope. Three lecture hours a week for one semester. Journalism 324C and 349T (Topic: Reporting Consumer News) may not both be counted. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 324F. Business and Financial Reporting.**

Restricted to journalism majors. Instruction in how to conceptualize, source, and prepare news reports on global financial markets, commercial transactions, and company performance. The course is global, with the United States a subset of the material covered. Hands-on course during which students produce multiple news packages for publication. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 325C. Reporting Health Care.**

Restricted to journalism majors. Explore production of multi-media stories to inform local, state, and national audiences about the health care system in the United States. Consider health care policy at all levels of government, and private and public systems of health care. Examine how to investigate, report and publish on this complex issue. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 325F. Covering Politics.**

Restricted to journalism majors. Specialized research, reporting, and writing skills to cover politics, elections, and candidates. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 325J. Community Journalism.**

Restricted to journalism majors. Explore reporting on communities and neighborhoods and the issues that affect them. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 325S. Solutions Journalism.**

Restricted to journalism majors. Explore the production of news content focusing on solutions to public issues. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 326C. Introduction to Coding for Journalists.**

Restricted to journalism majors. Learn basic coding skills and develop best practices used in digital newsrooms to create data-driven online presentations. Three lecture hours a week for one semester. Journalism 326C and 339T (Topic: Introduction to Coding for Journalists) may not both be counted. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 326F. Reporting Sports.**

Restricted to journalism majors. Contemporary professional skills and techniques in sports journalism. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

**J 326S. Advanced Topics in Texas Sports and Media.**

Restricted to journalism majors. Critical assessment of various contemporary and historical issues, emphasizing interdisciplinary perspectives. Three lecture hours a week for one semester. Communication 320 and Journalism 326S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

**J 327D. Reporting With Data.**

Restricted to journalism majors. An investigation of the basics of computer-assisted reporting. Subjects include finding compelling data sets; cleaning and analyzing the contents; using data visualization and simple statistical models to accurately report based on the data; and presenting results through stories, charts and maps. Three lecture hours a week for one semester. Journalism 327D and 333F may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and Journalism 310F (or 320D) with a grade of at least B- .

**J 328D. Advanced Reporting with Data.**

Restricted to journalism majors. Explore advanced data-assisted reporting techniques through use of databases, scripted analysis, and visualizations. Three lecture hours a week for one semester. Prerequisite: Journalism 327D (or 333F) with a grade of at least B-.

**J 328L. Reporting Latino/a Communities.**

Restricted to journalism majors. Examine how Latino/a communities are represented in the media. Explore production of news stories about various aspects of the Latino/a experience at the national, state, and local levels. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 328S. Reporting en Espanol.**

Restricted to journalism majors. Spanish-language news in the U.S. offers important possibilities for public service journalism. Production of multimedia news stories in Spanish for a local audience. Discusses issues facing the local Latino population from the international, to national, to state and local levels. Includes weekly pitch meetings,

rewrites, photography and digital storytelling. Students must be fluent in Spanish. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S.**  
**Topics in Journalism.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Journalism. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**J 329T. Topics in Public Affairs Reporting.**

Restricted to journalism majors. Contemporary social, professional, and intellectual concerns in the practice of public affairs reporting. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

**J 330C. Television Reporting.**

Restricted to journalism majors. Basic television newsgathering skills, including shooting and editing videotape, planning and executing visual storytelling, and writing news packages. Students assist in a weekly news broadcast. One-and-one-half lecture hours and three laboratory hours a week for one semester. Only one of the following may count: Journalism 330C, 330F, 335G, 335P, 363C, 363N. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Journalism 310F and 311F with a grade of at least B- in each; and Journalism 318P or 331G with a grade of at least C-.

**J 330G. Creative Nonfiction for Magazines and Books.**

Restricted to journalism majors. Reporting and writing skills for narrative nonfiction, including writing book proposals, magazine pitches, and sample chapters. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 330J. Advanced Photo Editing and Design.**

Restricted to students in the Maymester Abroad Program. Explores intensive photographic reportage and documentation using the camera as a tool of investigation and interaction. Emphasis on creation of photo stories, photo essays, and feature stories, with editing and page layout. Taught abroad; location may vary by semester. Only one of the following may be counted: Journalism 330J, 370K (Topic 1: Advanced Photo Editing and Design), 395 (Topic 2: Advanced Photo Editing and Design).

**J 330L. Community Life: Documented.**

Restricted to students in the Maymester Abroad Program. Explores video filmmaking in a multicultural, diverse city. Emphasis on learning the steps of producing a short documentary with a small group of students, then posting the final films on personal portfolio websites. Taught abroad; location may vary by semester.

**J 330S. International Solutions Journalism.**

Restricted to students in the Maymester Abroad Program. Examine how solutions journalism covers public and governmental issues outside the United States. Three lecture hours a week for one semester.

**J 331. Web Publishing.**

Focus on in-depth understanding of the web platform and its applicability to various types of content across multiple devices. Examination of web usage by individuals and organizations with the need for a digital presence. Experience the web publishing process, including planning,

production, tracking, and marketing. Exposure to HTML coding, design, content management systems, web analytics, and digital advertising. Three lecture hours a week for one semester. Journalism 331 and 331N may not both be counted. Prerequisite: Journalism 310F and 311F with grade of at least B- in each.

**J 331D. Intermediate Photographic Communication.**

Intermediate level photograph skills and techniques. Evaluation of recent trends, visual design, and use of images in the media. Students must provide their own digital 35-mm format camera. Three lecture hours and one-and-one-half laboratory hours a week for one semester. Prerequisite: Communication 316 with a grade of at least C-.

**J 331G. Audio Storytelling.**

Focus on broadcast writing for the ear and includes the production of NPR-style radio stories and the creation of original podcasts. Three lecture hours and three laboratory hours a week for one semester. Journalism 318P and 331G may not both be counted. Prerequisite: Journalism 310F with a grade of at least B-.

**J 331J. Studio Photography.**

An investigation of the principles of studio lighting, theory and practice of contemporary color, location lighting, and production of portfolio-quality work, as applicable to advertising, photographic illustration, and photojournalism. Three lectures and three laboratory hours a week for one semester. Journalism 331J and 371K (Topic 2: Studio Photography) may not both be counted. Prerequisite: Communication 316 with a grade of at least C-.

**J 331M. Media Innovation and Entrepreneurship.**

Learn how the digital revolution has disrupted the media industry, creating opportunities for entrepreneurial, innovative initiatives. Study cases of successful media startups, and develop a startup project, using digital technologies and human-centered design. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 331F, 331M, or 359T (Topic: Entrepreneurial Journalism). Prerequisite: For journalism majors, Journalism 310F with a grade of at least B-; for others, six semester hours of upper-division coursework.

**J 331N. Digital Production and Analytics.**

Restricted to journalism majors. Examine the digital publishing process, including planning, production, tracking, and marketing. Three lecture hours a week for one semester. Journalism 331 and 331N may not both be counted. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

**J 331W. Web Editing and Production.**

Examine the skills needed to produce and maintain a website, including understanding of content management systems and search engine optimization. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with grade of at least B- in each.

**J 332D. Web Production and Editing.**

How to plan, edit, package and publish multimedia news. Includes ethical news curation; use of social media to drive audience growth; and leveraging web content into the print product. Three lecture hours a week for one semester. Journalism 332D and 332F may not both be counted. Offered on the letter-grade basis only. Prerequisite: Journalism 310F with a grade of at least B-.

**J 332G. Explanatory Journalism: Storytelling in a Digital Age.**

Examination of the evolution of long-form explanatory storytelling from print and film to new forms of Web-based and interactive storytelling. Three lecture hours a week for one semester. Journalism 332G and 359T (Topic: Explanatory Journalism: Storytelling in a Digital Age) may not

both be counted. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 332J. Sports for Reporting Texas.**

Restricted to journalism majors. Students work as sports reporters for the School of Journalism's Reporting Texas Web site. Three lecture hours a week for one semester. Additional hour(s) to be arranged. Journalism 332J and Journalism 339T (Topic: Sports for Reporting Texas) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 332P. Images in Culture.**

Restricted to journalism majors. Explore the production of images related to entertainment and pop culture. Three lecture hours a week for one semester. Prerequisite: Journalism 311F with a grade of at least B- or Communication 316 with a grade of at least C-.

### **J 333G. Advanced Visual Journalism: Photo.**

Explores intensive photographic reportage and documentation using the camera as a tool of investigation and interaction. Emphasis on creation of photo stories, photo essays, and feature stories, with editing and page layout. Three lecture hours a week for one semester. Prerequisite: Communication 316 with a grade of at least C.

### **J 333J. Photography for Reporting Texas.**

Restricted to journalism majors. Students work as photographers for the School of Journalism's Reporting Texas Web site. Three lecture hours a week for one semester. Additional hour(s) to be arranged. Only one of the following may be counted: Journalism 333J, 359T (Topic: Photography for Reporting Texas), or 363V. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each; Communication 316 with a grade of at least C.

### **J 333L. Video Production for Live Events.**

Restricted to journalism majors. Examine the basics of shooting and editing live events. Three lecture hours a week for one semester. Prerequisite: Journalism 311F with a grade of at least a B-.

### **J 333S. Video Production for News and Sports.**

Restricted to journalism majors. Examine the basics of shooting and editing events, including live sports, news, and entertainment. Three lecture hours a week for one semester. Prerequisite: Journalism 311F with a grade of at least a B-.

### **J 334. Multimedia Journalism.**

Review of online reporting techniques, advanced multimedia skills, and current issues in new media. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least C- in each.

### **J 334F. Oral History as Journalism.**

Instruction in the use of oral history to generate journalistic coverage. Modules include concepts and methods of gathering oral history; illustration of the techniques using the Vietnam War as a topic; and generating oral history-based coverage focusing on the Mexican American experience. Three lectures hours a week for one semester. Journalism 334F and 334N may not both be counted. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 334G. Advanced Visual Journalism: Video.**

Explores intensive video reportage and documentation using the camera as a tool of investigation and interaction. Emphasis on creation of video news and feature stories. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 334G, 370K,

371K. Prerequisite: Communication 316 with a grade of at least C; and Journalism 310F and 311F with a grade of at least B- in each.

### **J 334J. Web Publishing for Journalism.**

Restricted to journalism majors. Provides students with an up-to-date understanding of the Web publishing process, including conceptualization, production, and marketing. Three lecture hours a week for one semester. Journalism 334J and 339T (Topic: Web Design for Journalism) may not both be counted. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 334N. Oral History in Multimedia Storytelling.**

Instruction in using oral history to generate archival material and short-term multimedia stories. Covers concepts and methods of gathering oral history with an emphasis on interviewing techniques. Centers on U.S. Latinos and ways to build a multimedia representation of the interview. Includes one major interview trip, generally out of town. Three lecture hours a week for one semester. Journalism 334F and 334N may not both be counted.

### **J 334P. Podcast Production.**

Analyze current podcasts. Create and produce two segments of an original podcast. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: For journalism majors, Journalism 310F with a grade of at least B-; for others, six semester hours of upper-division coursework.

### **J 334S. Place and Audio Storytelling.**

Learning how to find the essence of a specific location and tell its story. Audio recording/editing, infographics, and photographs will be the tools used. Three lecture hours a week for one semester. Prerequisite: For journalism majors: Journalism 310F with a grade of at least B-; for others: consent of instructor.

### **J 335. Narrative Journalism.**

Explore techniques for reporting non-fiction stories with the tools of fiction, including scene and dialogue. Analyze exemplary pieces of narrative, from written form to documentary film. Examine the reporting and writing of original non-fiction narratives. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 335, Latin American Studies 322 (Topic 11: Latino Community Journalism), 322 (Topic 11: Narrative Journalism), Mexican American Studies 374 (Topic 4: Latino Community Journalism), 374 (Topic 4: Narrative Journalism). Prerequisite: Journalism 310F with a grade of at least B-.

### **J 335D. Making Magazines.**

Includes simulated publication teams that craft a concept, develop a business plan, and create a prototype. Focus on market research, writing, team building, design and production skills. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 335F. Magazine Writing and Production.**

Restricted to journalism majors. Instruction in and supervised practice of magazine reporting and production. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 335G. Advanced Television Reporting and Producing.**

Restricted to journalism majors. Advanced writing and reporting skills for the collaborative production of television news programs on deadline. Students assist in producing a television news program. One and a half lecture hours and three laboratory hours a week for one semester. Only one of the following may count: Journalism 330C, 330F, 335G, 335P,

363C, 363N. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each, and credit or registration for Journalism 330C (or 330F) with a grade of at least C-.

### **J 335J. Mobile Programming for Journalists.**

Restricted to journalism majors. Coding and other skills in preparation for designing mobile news apps. Three lecture hours a week for one semester. Only one of the following may be counted: 339T (Topic: Intro Mobile Progr Journalists), Journalism 335N, 335J. Offered on the letter-grade basis only. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 335K. News Documentary Production.**

Restricted to journalism majors. Produce original news documentaries with an emphasis on films covering current affairs, contemporary life, and historical subjects. Three lecture hours a week for one semester. Prerequisite: Journalism 311F with a grade of at least B-.

### **J 335N. News Application Development.**

Restricted to journalism majors. Explore the skills necessary to create interactive web applications for journalism and related fields. Three lecture hours a week for one semester. Only one of the following may count: Journalism 335J, 335N, 339T (Topic: Intro Mobile Progr Journalists). Prerequisite: Journalism 310F with a grade of at least B-.

### **J 335P. TV Reporting and Producing.**

Restricted to journalism majors. Explore the skills needed for the collaborative production of television news programs on deadline. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may count: Journalism 330C, 330F, 335G, 335P, 363C, 363N. Prerequisite: Journalism 311F with a grade of at least a B- and 331G.

### **J 336D. Graphic Design for Print and Online.**

Overview, design, and production of materials for online and print storytelling. Subjects include design principles, visual perception, typography, manipulation of images and photographs, and page design for media platforms. Three lecture hours a week for one semester. Prerequisite: Journalism 310F or Communication 316 with a grade of at least B-.

### **J 336F. Social Media Journalism.**

The role of journalism in using social media to engage a wide audience, building a marketable brand for journalists and media organizations, and engaging an audience with the news media. Practice in using tools and techniques to be an engaging and effective media practitioner. Three lecture hours a week for one semester. Journalism 336F and 349T (Topic: Social Media Journalism) may not both be counted.

### **J 336G. Producing Social Documentaries for Television News.**

Restricted to journalism majors. Instruction in the production of social documentaries for television, with emphasis on social issues often ignored by television news. Includes production of a twenty-minute long-form story. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each; Journalism 331G with a grade of at least C-; and Journalism 330F (or 353D) with a grade of at least C-.

### **J 336J. Lifestyle Journalism.**

Specialized reporting and writing in lifestyle coverage, including food, fashion, entertainment and travel. Three lecture hours a week for one semester. Journalism 336J and 349T (Topic: Lifestyle Journalism) may

not both be counted. Offered on the letter-grade basis only. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 336M. Music Journalism.**

Restricted to journalism majors. Reporting, reviewing and writing about all aspects of the music industry, from start-up record labels to established companies, to independent artists and major musicians. Uses new digital tools to gather content and explore how the industry, and covering it, has changed. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 336M, 339T (Topic: Music into Words), or 339T (Topic 2). Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 337C. Culture Reporting and Criticism.**

Restricted to journalism majors. Cover and review cultural productions such as music, theatre, fine arts, film and food. Three lecture hours a week for one semester. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 337D. Advanced Graphic Design for Print and Online.**

Advanced exploration of graphic design tools, theory, industry trends, and history. Emphasis on design in journalism, infographics, long-form print design, and user interface (UI) and user experience (UX) design. Three lecture hours a week for one semester. Prerequisite: Journalism 336D with a grade of at least a C-.

### **J 337F. Long-Form Feature Writing.**

Advanced instruction in reporting and writing long-form narratives, including lessons in analyzing story-telling tools, strategies, and techniques. Examination of narrative strategies and techniques across different media platforms. Three lecture hours a week for one semester. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 337G. Opinion Writing.**

Restricted to journalism majors. Examines opinion writing and commentary in traditional print and evolving online formats. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 337J. Writing for Online News Audiences.**

Students will learn how to write informatively and effectively for online audiences, and how to repurpose traditional print journalism for online publication. Three lectures a week for one semester. Journalism 337J and 349T (Topic 22) may not both be counted. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 337L. Food Journalism.**

Restricted to journalism majors. Explore the production of content centered on food and dining, including restaurants and recipes. Three lecture hours a week for one semester. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 337M. Feature Writing.**

Restricted to journalism majors. Explore the production of profiles, enterprise pieces, and non-deadline stories. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 327, 337M, Latin American Studies 322 (Topic 4: Feature Writing), Mexican American Studies 374 (Topic 6: Feature Writing). Prerequisite: Journalism 310F with a grade of at least B-.

### **J 337P. Writing and Producing for Online Publications.**

Restricted to journalism majors. Examine how to write informatively and effectively for online audiences and how to be a web producer at a major news organization, including social media, newsletters, mobile apps, content management systems, and more. Three lecture hours a week

for one semester. Journalism 337P and 349T (Topic 22) may not both be counted. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 338F. Advanced Visual Design.**

Restricted to journalism majors. Advanced exploration of principles and processes of visual design, including design principles, visual perception, typography, image making, uses of color, printing techniques, and publication design. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Journalism 336D with a grade of at least C, and Journalism 310F and 311F with a grade of at least B- in each.

### **J 338J. News for a Mobile Audience.**

Examine the mobile landscape, including news and entertainment platforms, social media, and the practice and principles of journalism. Explore ideas for increasing mobile news engagement, especially by Generation Z and Millennials. Three lecture hours a week for one semester. Journalism 338J and 349T (Topic: News for a Mobile Audience) may not both be counted. Prerequisite: Upper-division standing.

### **J 339D. News Documentaries and Public Affairs.**

Study and practice of researching, writing, and producing short-form and magazine documentaries for television. Three lecture hours a week for one semester. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 339F. Investigative Reporting.**

Restricted to journalism majors. Emphasis on determining what an investigative story is, finding investigative stories, and basic tactics in pursuing such stories. Three lecture hours a week for a semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 339M. Mobile Media Apps Development.**

Restricted to journalism majors. Planning and building a mobile app, whether for Android, iOS, or web-based, and personal communication in the news business and in various other journalism-related topics. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 339M, 339G, 363M or Journalism 359T (Topic: Mobile News App Design). Prerequisite: Upper-division standing; Journalism 310F and 311F with a grade of at least B- in each.

### **J 339S. Research in Texas Sports and Media.**

Same as Communication 330. Restricted to journalism majors. Supervised research with a faculty member; research may consist of an individual project or assisting a faculty research project. Hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing and a University grade point average of at least 2.25; and Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 339T. Topics in Specialized Journalistic Skills.**

Restricted to journalism majors. Contemporary social, professional, and intellectual concerns in the practice of specialized journalistic skills. Three lecture hours a week for one semester. Some topics may require additional laboratory hours. May be repeated for credit when the topics vary. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

**Topic 1: Mapping in Storytelling.** Restricted to journalism majors. Creating visual stories that combine text, charts and maps. Foundations of data analysis, spatial analysis, design, data visualization and cartography, including hands-on practice with GIS software and discussions of editorial and ethical concerns in visual storytelling. Assignments include combining new skills and

reporting to produce visual stories. Journalism 339T (Topic: Mapping in Storytelling) and 339T (Topic 1) may not both be counted.

**Topic 3: Producing Documentaries for Sports Journalism.** Restricted to journalism majors. Applied skills in teams to produce one original documentary sports story. Emphasis placed on stories that transcend competition and explore larger social issues, such as race, sex, gender, class, opportunity, community, and identity. Journalism 339T (Topic: Documentaries for Sports) and 339T (Topic 3) may not both be counted.

**Topic 4: Tracking Online Audience Engagement.** Introduction to current practices in tracking and engaging online audiences such as web metrics, Google Analytics, search engine optimization, and keyword advertising.

### **J 340C. Topics in Journalism, Communication, and Culture.**

Issues concerning minority or nondominant groups within the United States. Three lecture hours a week for one semester. Some topics may require additional laboratory hours. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 4: Leadership, Management, and the Media.**

### **J 340D. Reporting on Technology.**

How to report on technology and its meaning for business and society using the Austin technology scene. Hands-on reporting, from robotics and mobile media to gaming and music production. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 340F. Covering the Global Economy.**

Restricted to journalism majors. Examines the enduring financial, economic, and business issues journalists confront in covering the global economy. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 340G. Reporting Asia: A Foreign Correspondent's Framework.**

Restricted to journalism majors. Explores dynamic ways of looking at, thinking about, and reporting the world, and establishes a framework for analyzing how the news media cover key events, issues, and processes that shape our lives in a global society. Three lecture hours a week for one semester. Journalism 340G and 395 (Topic 17: Reporting Asia) may not both be counted. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 340J. Documentary Tradition of Latin America.**

Contemporary social, professional, and intellectual concerns with the practice of journalism. Study of still photographic and video documentary work by Latin Americans about Latin America. Production of photographic essays on Latin American culture. Three lecture hours a week for one semester. Journalism 340J and 349T (Topic: Documentary Tradition in Latin America) may not both be counted. Prerequisite: Journalism 310F or Communication 316 with a grade of at least B-

### **J 341F. Understanding African Americans and the Media.**

Documentaries, readings, discussions, projects, and theories facilitate the examination of the relationship between African American history and contemporary American society. Media representations of African Americans are evaluated and news coverage of African Americans is explored in depth. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **J 341G. Reporting China: A Foreign Correspondent's Workshop.**

Restricted to journalism majors. Contemporary social, professional, and intellectual concerns with the practice of journalism. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 341J. Minorities and the Media.**

Issues concerning news media depiction of underrepresented groups in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 341H, 341J, 341M, Latin American Studies 322 (Topic 10), Mexican American Studies 374 (Topic 22), Urban Studies 354 (Topic: Minorities and the Media), Women's and Gender Studies 340 (Topic 21).

### **J 341M. Representation in the News Media.**

Examine issues concerning news media depiction of minority and nondominant groups in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 341J, 341M, Latin American Studies 322 (Topic 10), Mexican American Studies 374 (Topic 22), Urban Studies 354 (Topic: Minorities and the Media), Women's and Gender Studies 340 (Topic 21).

### **J 342F. Women and the News.**

Restricted to journalism majors. Historical and contemporary exploration of women and the news. Examination of the role of women in producing news and the construction of women within news texts. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 342G. Reporting the World: A Critical Examination of the United States News Media.**

Dynamic ways of looking at, thinking about, and reporting the world, both abroad and at home. Establishes a framework for analyzing how the news media cover key events, issues, and processes that shape our lives in a global society. Three lecture hours a week for one semester. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 342J. Visual Media and the News.**

Restricted to journalism majors. Explores the power of mediated images in culture and society. Examines the way images, language, and human activity shape visual messages and the historical relationship between technology and image-creation. Three lecture hours a week for one semester. Journalism 342J and 349T (Topic: Visual Media and the News) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 343F. Journalism and Religion.**

Restricted to journalism majors. Critical examination of how religion traditionally has been covered in the United States, and guidelines for developing individual thinking and reporting on religious issues. Three lecture hours a week for one semester. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 343G. Exploring Digital Media and Society.**

Examines the connection between new media and society through a variety of theoretical and practical perspectives to explore the implications of the use of technology and new media in influencing community, social relationships, and public and private spaces, as well as the profession of journalism. Three lecture hours a week for one semester.

### **J 344F. Reporting on Gender and Sexuality.**

Restricted to journalism majors. Instruction on how to cover controversial issues around gender and sexuality. Review of the sociology of gender and sexuality, with a focus on political, economic, and cultural implications. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 344G. Urban Journalism.**

Restricted to journalism majors. Studies of basic city functions and how to detect urban dysfunctions before crises become news. Topics include infrastructure decay, traffic congestion, poverty and homelessness, digital divides, school dropouts, conflict and crime, riots and protests, obesity and disease, recreation, and pollution. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 344J. Media Images and Society.**

Restricted to journalism majors. The power of mediated images in culture and society; exploration of the way images, language, and human activity shape visual messages; and the historical relationship between technology and image creation. Three lecture hours a week for one semester. Journalism 344J and 349T (Topic: Media Images and Society) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 345F. Social Issues Reporting.**

Restricted to journalism majors. Coverage of social issues such as immigration, health care, and child welfare. Examination of stereotypes, how they affect reporting, and how they change as student reporters encounter new subjects. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 345G. Human Rights Journalism.**

Restricted to journalism majors. Exploration of the role of journalists in exposing human rights abuses. Modules include case studies from El Salvador, South Africa, Zimbabwe, Rwanda, Bosnia, Sudan, Israel, and Russia, as well as the legal and moral obligations of journalists as witnesses to atrocities and genocide. Examination of the Bush Administration's global War on Terror and the legacy confronting the Obama Presidency. Three lecture hours a week for one semester. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 346F. Reporting on the Environment.**

Restricted to journalism majors. Instruction and supervised fieldwork in environmental coverage. Topics include interviewing, elements and structures of good environment writing, the concepts of scientific certainty and uncertainty, and communicating complex science to lay audiences. Issues covered include climate change, energy, air and water quality, and sustainability. Three lecture hours a week for one semester. Journalism 346F and 349T (Environmental Journalism) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 346G. Domestic Issues and Global Perspective.**

Examining domestic issues (consumerism, food/health, environmentalism, energy consumption) from global and intercultural perspectives. Proper positioning of the United States helps journalists and news consumers think outside the box. Three lecture hours a week for one semester.

### **J 347F. Reporting Latin America.**

Foreign reporting and international news production processes, with special emphasis on Latin America. Three lecture hours a week for one semester. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 347G. Cultural Survey of Photography.**

Examine the development of photography focused on reportage, documentary, and social issue art photography, including historical processes, the evolution of stylistic trends, and critical issues in the field. Explore the Harry Ransom Center and other University of Texas photographic archives. Three lecture hours a week for one semester. Prerequisite: Journalism 310F or Communication 316 with a grade of at least B-.

### **J 348D. Gender and the News.**

Same as Women's and Gender Studies 324G. Historical and contemporary exploration of gender and the news. Examination of the role of marginalized gender groups in producing news and the construction of gender within news texts. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 348D, Women's and Gender Studies 324 (Topic 4), 324G. Prerequisite: For journalism majors, Journalism 310F with a grade of at least B-; for others, six semester hours of upper-division coursework in women's and gender studies.

### **J 348E. Ethics of Sports Media.**

Analyze the role of journalistic ethics in the coverage and media production of sports. Three lecture hours a week for one semester.

### **J 348F. Covering the Latino Community in the United States.**

Challenging and developing views of the contemporary Latino community and other underrepresented people in the United States. Topics include a history of ethnic groups in the United States and their politics, education, organization, immigration, culture, power, and media. Three lecture hours a week for one semester. Prerequisite: Journalism 310F with a grade of at least B-.

### **J 348G. The Business of Sports Media.**

Same as Advertising 348S and Public Relations 348S. Examination of the business of sports-related media, including over-the-air television, cable, satellite television, print, radio, social media, and internet-based media, and the impact of such media on sports presentation and development, professional franchises, colleges, and conferences. Emphasis on how the business of sports media generates revenue and content, and the business models for each type of media, the challenges to such models, and the likely future changes to them. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 348S, 378 (Topic: The Business of Sports Media), Communication 325 (Topic: The Business of Sports Media), Journalism 348G, 349T (Topic: The Business of Sports Media), Public Relations 348S, 378 (Topic: The Business of Sports Media).

### **J 348J. Covering Criminal Justice.**

Examine how criminal justice is covered in the news media. Three lecture hours a week for one semester.

### **J 348L. Making Sense of the News.**

Restricted to non-journalism majors. Gaining the critical thinking skills necessary to analyze what is news in our digital age. Examines accuracy, sources and verification, and bias behind information in the public sphere. Three lecture hours a week for one semester.

### **J 348M. Diversity in News Organizations.**

Three lecture hours a week for one semester. Journalism 348M and 349T (Topic: Diversity in News Orgs) may not both be counted. Prerequisite:

For journalism majors: Journalism 310F and 311F with a grade of at least B- in each; for others: consent of instructor.

### **J 348N. Leadership in News Organizations.**

Restricted to journalism majors. Examine concepts and frameworks related to skills integral to ethical, effective leadership and management in news organizations. Explore making ethical decisions, communicating supportively to others, gaining power and influence, managing conflict, building effective teams, and leading positive change. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 348S. Media Management.**

Print and broadcast management and planning in operations, personnel, content, marketing, finance, technology, and regulation. Three lecture hours a week for one semester.

### **J 349E. Elections, Voters, and News.**

Explores U.S. election history, dimensions of and influencers in U.S. elections, news coverage of candidates and issues, and voters and their attitudes toward candidates and issues as well as their engagement with election news. Three lecture hours a week for one semester. Journalism 349E and 349T (Topic: Elections/Voters/News) may not both be counted. Prerequisite: Upper-division standing.

### **J 349F. Reporting Public Health and Science.**

Restricted to journalism majors. Specialty reporting to help news consumers understand complex health and medicine issues. Considers the lack of critical perspective, balanced reporting, and grasp of fundamental issues that afflict much health reporting. Focuses on the latest reporting techniques and narrative skills to illuminate an intellectually demanding field that also includes public health policy. Three lecture hours a week for one semester. Journalism 349F and 349T (Topic: Reporting Public Health and Science) may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 349L. News Literacy for a Digital Age.**

Explores news, journalists, the practice and ethics of journalism, news platforms, history, and threats to the future of news, and the attitudes, demographics, and behavior of the news audience. Three lecture hours a week for one semester. Journalism 349L and 349T (Topic: News Literacy for a Digital Age) may not both be counted.

### **J 349N. News Media and Politics.**

Examines central controversies and theories about the role the media in politics and the political systems. Three lecture hours a week for one semester. Journalism 349N and 349T (Topic: News Media and Politics) may not both be counted.

### **J 349T. Topics in Understanding and Reporting Social Issues.**

Restricted to journalism majors. Contemporary social, professional, and intellectual concerns in the practice of journalism. Three lecture hours a week for one semester. Some topics may require additional laboratory hours. May be repeated for credit when the topics vary. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

**Topic 1: Senior Seminar.** Capstone experience in analysis of current journalism issues. Students complete a major research project. Additional prerequisite: Consent of instructor.

**Topic 5: Broadcast News Practices and Analysis.**

**Topic 8: Alternative Media.** Journalism 349T (Topic 8) and 395 (Topic 22: Alternative Media) may not both be counted.

**Topic 9: Covering Technology and Innovation.**

**Topic 11: Editorial Column Writing.**

**Topic 14: Latino Policy Issues.**

**Topic 20: Video Journalism for the Web.**

**Topic 21: Writing for Magazines and Specialty Publications.**

**Topic 22: Writing for Online Publications.** Journalism 337P and 349T (Topic 22) may not both be counted.

### **J 350F. Media Law.**

Examination of legal rights and restrictions for online and print journalism, including Constitutional guarantees, libel, invasion of privacy, and contempt of court. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **J 350M. Media Policy and Ethics.**

Explore the contemporary ethical and policy issues facing the transforming media industries and the American public. Examine a range of issues that new media and the Internet have complicated, rooted in an understanding of the First Amendment as well as the development of communication industries. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 350M, Radio-Television-Film 365 (Topic: Media, Communication Law, and Ethics), 365C (Topic 1).

### **J 350N. Ethnic Media.**

Examine the history of media devoted to ethnic communities underrepresented by mainstream media, as well as news consumers whose primary languages are not English, in New York - including the country's first African-American newspaper in 1827 - and their continuing relevance in a global world. Three lecture hours a week for one semester.

### **J 351C. Contemporary Media Systems.**

Explore the contemporary role of media systems in the U.S. Examine the structure and reach of today's media systems, and the role of individuals and corporations in new digital systems. Three lecture hours a week for one semester.

### **J 351F. Journalism, Society, and the Citizen Journalist.**

Examine journalism's principles, process, and role in society. Discuss distinctions between journalists and citizen journalists and explore the news audience in depth with special attention paid to Millennials and Generation Z and their engagement with different news platforms. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **J 351G. Introduction to Global Media.**

Examine the role of global media as a set of texts, technologies, and industries that shape our identities, our social worlds, and our political practices. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 351G, 359S (Topic: Introduction to Global Media), Radio-Television-Film 312C, 324C.

### **J 351J. Technology and the Internet in Journalism.**

Examine the literacy of computer and Internet technologies in the context of journalism and communication. Focus on software, databases, computer/wireless networks, hardware, cybersecurity, and the Internet work. Explore case studies from science and technology journalism in order to reflect on the technical knowledge needed to effectively report and communicate in these areas. Three lecture hours a week for one semester.

### **J 351P. Social Media, Propaganda, and Elections.**

Explore the spread of "computational propaganda," including misinformation, disinformation, and political trolling, with a special focus

on U.S. politics, media, and reporting. Three lecture hours a week for one semester.

### **J 351S. Globalization and Social Media.**

Examine the issues surrounding the hype, myth, paradox, and reality of social media in a global context. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic: Globalization and Social Media), Journalism 349T (Topic: Globalization and Social Media), 351S, Radio-Television-Film 331M (Topic: Globalization and Social Media), 365 (Topic 10), Sociology 321K (Topic: Globalization and Social Media), 352S.

### **J 351T. Technology and Culture.**

Examine ideas about the relationship between technology and culture, how U.S. culture views technology, and the historically contingent design, development, and use of different media and communication technologies. Three lecture hours a week for one semester. Only one of the following may be counted: Communication 309, Journalism 351T, Journalism 359S (Topic: Tech Culture), Radio-Television-Film 309, 326C.

### **J 352. Topics in Journalism.**

Contemporary social, professional, and intellectual concerns in the practice of journalism. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

**Topic 6: Presidents and the Press.** Three lecture hours a week for one semester. Additional prerequisite: Consent of instructor.

### **J 352F. Ethics in Journalism.**

In-depth examination of the ethical choices individual journalists face and the ethical implications of how news media operate in a larger social and political framework. Three lecture hours a week for one semester.

### **J 353F. Historical Perspectives in Journalism.**

Evolution of journalism and mass media, including the social, economic, and political factors that have contributed to changes in news gathering and distribution. Three lecture hours a week for one semester.

### **J 354F. Journalism and Press Freedom in Latin America.**

Same as Latin American Studies 322 (Topic 20). Focus on journalism in Latin America with an emphasis on the struggle for democracy and press freedom in the region through country-by-country survey of historical, political, economic, cultural, ethnic and geographical aspects. Examination of the evolution of professional journalism in Latin America, including topics such as the legal framework for freedom of expression, ethical principles, concentration of media ownership and the emergence of digital media. Knowledge of Spanish language is recommended, but it is not a requirement. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 354F, 367E, Latin American Studies 322 (Topic 14), 322 (Topic 20).

### **J 354L. Mapping Latino Culture in East Austin.**

Explore the cultural history of majority Anglo and minority (Latino, African-American, and Asian) Austin with a focus on how the sources of information, culture, and media available to minority residents have evolved, and how those sources have been used by people and communities there. Three lecture hours a week for one semester. Only one of the follow may be counted: Journalism 354L, Radio-Television-Film 365 (Topic: Mapping Latino Culture in East Austin), 365 (Topic 12).

### **J 354M. Journalism and Press Freedom in the Middle East and North Africa.**

Explore journalism in the Middle East and North Africa with an emphasis on the period leading up to the Arab Spring and subsequent

developments. Survey historical, political, economic, cultural, ethnic, and geographical aspects of the region. Examine the evolution of professional journalism in the Middle East and North Africa. Includes legal framework for freedom of expression, ethical principles, concentration of media ownership and the emergence of digital media. Knowledge of Arabic is not a requirement. Three lecture hours a week for one semester.

#### **J 354N. Nonprofit Journalism.**

Examine and analyze the growing field of nonprofit journalism, its business models, and its impact on news content. Three lecture hours a week for one semester.

#### **J 354R. International Broadcasting.**

Survey broadcast production and content outside of the United States. Three lecture hours a week for one semester.

#### **J 354S. Contemporary Issues in Sports Journalism.**

Examine the range of problems and opportunities prevalent in coverage of American sports. Includes discussion of class, equality, gender, labor, political expression and race. Examine timeless themes in sports coverage such as community, ego, identity, money, opportunity and tradition, as well as sports-specific journalistic ethics. Three lecture hours a week for one semester. Journalism 354S and 359T (Topic: Contemporary Issues in Sports Journalism) may not both be counted.

#### **J 355F. Living in the Information Age.**

Examine communication and information technologies with particular emphasis on the Internet and its components. Explore how digital and mobile technologies are used by Millennial and post-Millennial generations and with what effects. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 355F, 355G, 359T (Topic: Living in the Information Age), 359T (Topic 8), Radio-Television-Film 331N (Topic: The Information Society).

#### **J 355G. The Information Society.**

Examine information technologies such as the Internet, telephones, and computers and their relation to existing media, including history, policy, economics, and social impact. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 355F, 355G, 359T (Topic: Living in the Information Age), 359T (Topic 8), Radio-Television-Film 331N (Topic: The Information Society).

#### **J 355M. Media Industries and Entrepreneurship.**

Examine the social, political, and economic contexts in which media and culture are produced, distributed, and monetized. Explore these with an emphasis on new media and communication technologies. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 355M, Radio-Television-Film 365 (Topic: Media Industries and Entrepreneurship), 365 (Topic 9), Sociology 352E, 352M (Topic: Media Industries and Entrepreneurship).

#### **J 355P. The Business of News.**

Discusses trends and innovations shaping the business of news, from rapidly evolving content consumption patterns to emerging storytelling platforms like streaming, podcasting, and AR/VR. Examines the challenges and opportunities of the business of news, for-profit and non-profit alike, essential for those planning a career in media. Includes on-site, interactive conversations with news professionals and entrepreneurs, students will learn about Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **J 356C. Digital Mainland China and Taiwan.**

Examine disruptive innovations and entrepreneurship such as social and mobile media, big data, and AI; and their media, cultural, and social

implications in Chinese societies such as mainland China and Taiwan. Three lecture hours a week for one semester.

#### **J 356G. Social Media: Growth, Uses, and Impacts.**

Explore a range of issues related to the growth, uses, and impacts of social media, including the rapid rise and adoption of social media. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 356G, Radio-Television-Film 359 (Topic: Youth and Social Media), 359 (Topic 4), 359 (Topic 5).

#### **J 356M. Social Media and Society.**

Explore social media's rise and influence in society. Three lecture hours a week for one semester. Communication 370 (Topic: Social Media and Society) and Journalism 356M may not both be counted.

#### **J 356R. Race and Digital Media Cultures.**

Examine how digital media cultures—the Internet, social media, video games, civic tech—interact with race in complex ways. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 356R, Radio-Television-Film 359 (Topic: Race/Digital Media Cultures), 359 (Topic 7).

#### **J 358C. Becoming Citizen Journalists.**

Restricted to non-journalism majors. Covers the basics of journalism for students who are interested in sharing truthful stories to a public audience, but do not intend to pursue a career in the profession. Uses digital and social media tools. Explores three topics: how to find and gather the best factual information, how to present it in clear and engaging ways, and how to make ethical decisions that serve the needs of the audience and democracy. Three lecture hours a week for one semester. Journalism 308J and 358C may not both be counted.

#### **J 358N. Online Incivility.**

Explore online incivility - defined as nasty remarks intended to hurt that often contain profanity, capital letters to indicate yelling, and put-downs or name-calling - in news story comments and social media. Critically assess the impact of incivility on public discussions online and how that influences journalists and other media practitioners. Three lecture hours a week for one semester. Communication 370 (Topic: Online Incivlty/Publ Debat) and Journalism 358N may not both be counted.

#### **J 358P. Popular Culture and the Press.**

Explores the relationship between American popular culture and the press, its role in our everyday lives, and how it helps shape our attitudes and identities. Explores popular culture in television, film, magazines, the Internet, social media, and advertising. Subjects include movies, music, film, fashion, food, travel, celebrity and society news, among others. Three lecture hours a week for one semester.

#### **J 358S. Communicating Social Change.**

Utilizing communication skills to tell truthful stories of underrepresentation and marginalization. Three lecture hours a week for one semester. Prerequisite: Journalism 310F or Journalism 313P with a grade of at least B-

#### **J 358T. Topics in Journalistic Practices.**

Restricted to non-journalism majors. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

#### **J 359M. Topics in Journalism and Media Studies.**

Examine contemporary issues in the fields of journalism and media studies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **J 359S. Topics in Current Journalistic Issues.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **J 359T. Topics in Journalism, Skills, and Techniques.**

Restricted to journalism majors. Examine the contemporary professional decisions and techniques used in the practices of journalism. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

### **J 360F, 660F. Internship.**

Restricted to journalism majors. Internships to be arranged by student and approved by instructor. Internship hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 160G. Journalism Practicum.**

Restricted to journalism majors. Internship hours to be arranged. Offered on the pass/fail basis only. Prerequisite: One of the following: Communication 350, Journalism 360F, or 660F.

### **J 360S. Sports Media Internship.**

Restricted to journalism majors. Sports media internships to be arranged by student and approved by instructor. Internship hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each.

### **J 361F. Reporting Texas.**

Restricted to journalism majors. Students work as online reporters, photographers, and editors for the School of Journalism's Reporting Texas website. Three lecture hours and three laboratory hours a week for one semester. Journalism 359T (Topic: Reporting Texas) and 361F may not both be counted. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each; and six additional semester hours of upper-division coursework in journalism with a grade of at least B.

### **J 362F. Journalism Portfolio.**

Restricted to journalism majors. A synthesis experience to polish journalism skills, showcase reporting and production abilities across multiple journalistic platforms, and complete a professional online portfolio. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Senior standing; Journalism 310F and 311F with a grade of at least B- in each; and six semester hours of upper-division coursework in journalism with a grade of at least B-.

### **J 363. Theories of Mass Communication.**

Comparative survey of perspectives, research, and theories on communication through the mass media; theories on media effects and the construction of social reality, especially regarding the news media. Three lecture hours a week for one semester.

### **J 363C. Broadcast Capstone.**

Restricted to journalism majors. Stresses proficiency in broadcast reporting and production by emphasizing professional skills and habits. One-and-one-half lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Journalism 330C, 330F, 335G, 335P, 363C, 363N. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each, and credit or registration for Journalism 330C (or 330F) with a grade of at least C-.

### **J 363D. Digital Innovations Capstone.**

Development of cutting-edge media products. Working in groups or individually; conceive, pitch, plan, design, and create projects under the

guidance of a professor, graduate students, and professional mentors. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; and Journalism 310F and 311F with a grade of at least B- in each.

### **J 363F. Capstone Projects in Journalism.**

Restricted to journalism majors. The design and execution of special projects showcasing the individual student's interests in one or more journalistic platforms. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing; completion of six hours of upper-division coursework in journalism with a grade of at least a B.

### **J 363K. News Documentaries.**

Restricted to journalism majors. Use applied skills as individual filmmakers to produce one original news documentary under ten minutes. Emphasis placed on films covering current affairs, contemporary life and historical subjects, films that might be found on The New York Times or The New Yorker. Three lecture hours a week for one semester. Prerequisite: Journalism 311F with a grade of at least B-; one of the following with a grade of at least B-: Journalism 330C (or 330F), 330L, 334G, 335P, 339T (Topic 3).

### **J 363L. Journalism Research Capstone.**

Restricted to journalism majors. Emphasizes proficiency in researching and writing. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each; six additional semester hours of upper-division coursework in journalism; and consent of instructor.

### **J 363M. Capstone in Application Development.**

Restricted to journalism majors. Plan and build a mobile application, whether for Android, iOS, or web-based, and use journalistic multimedia skills to promote and explain the products. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 339G, 339M, 363M. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each; and six hours of upper-division coursework in journalism.

### **J 363N. Newsroom Capstone.**

Restricted to journalism majors. Take part in a newsroom experience to refine journalism skills, and showcase reporting and production abilities across multiple journalistic platforms. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 330C, 330F, 335G, 335P, 363C, 363N. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each; and six hours of upper-division coursework in journalism.

### **J 363P. Television Newsmagazine.**

Restricted to journalism majors. Explore the production of a television newsmagazine program, including on-air reporting, editing, and segment production. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Journalism 330C or 335G or 335P or 363N.

### **J 363Q. Capstone in Podcasting.**

Restricted to journalism majors. Plan, research, report, record, and produce professional-quality podcasts. Analyze podcasting audiences, build revenue streams, and market podcasts to a regional or global audience. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each; and six hours of upper-division coursework in journalism.

### **J 363S. Sports Media Capstone.**

Restricted to journalism majors. Stresses proficiency in sports writing, reporting, and editing by emphasizing professional skills and habits.

Three lecture hours a week for one semester. Prerequisite: Journalism 326F with a grade of at least C-.

### **J 363V. Visual Capstone.**

Restricted to journalism majors. Stresses proficiency in visual reporting by emphasizing professional skills and habits. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 333J, 359T (Topic: Photography for Reporting Texas), or 363V. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each; and Journalism 331D or 333G with a grade of at least C-.

### **J 363W. Reporting Capstone.**

Restricted to journalism majors. Stresses proficiency in writing, reporting, and editing by emphasizing professional skills and habits. Three lecture hours a week for one semester. Prerequisite: Journalism 310F and 311F with a grade of at least B- in each; and six hours of upper-division courses in journalism.

### **J 365M. Experiential Learning.**

Restricted to students pursuing a minor offered by the Moody College of Communication. Hours to be arranged. Prerequisite: Consent of Instructor.

### **J 165P, 265P, 365P. Specialized Practice in Journalism.**

Restricted to journalism majors. Specialized journalistic instruction by a professional from the field. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing; Journalism 310F and 311F with a grade of at least B- in each; and consent of instructor.

### **J 370K. Advanced Photojournalism.**

Explores intensive photographic reportage and documentation using the camera as a tool of investigation and interaction. Emphasis on creation of photo stories, photo essays, and feature stories, with editing and page layout. Three lecture hours and four laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Acceptance into the photojournalism area of concentration or consent of instructor.

**Topic 2: Documentary Video.**

**Topic 3: Picture Editing.**

### **J 371K. Photographic Illustration.**

Principles of studio lighting, theory and practice of contemporary color, location lighting, and the production of portfolio-quality work, as applied to advertising, photographic illustration, and photojournalism. Three lecture hours and four laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Acceptance into the photojournalism area of concentration or consent of instructor.

**Topic 1: Location Lighting.**

**Topic 2: Studio Photography.**

### **J 178P, 278P, 378P. Special Projects in Journalism.**

Restricted to journalism majors. Supervised projects in the field of journalism. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, and consent of instructor.

### **J 379. Journalism Independent Study.**

Restricted to journalism majors. Designed to give students the opportunity to pursue special studies for which separate courses have not been organized. The equivalent of nine laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Journalism 310F

(or 320D) and 311F (or 321C) with a grade of at least B- in each, and consent of the director of the school.

### **J 379H. Honors Tutorial Course.**

Restricted to journalism majors. Conference course of intensive study, planned by Journalism Honors Committee; research and the writing of a substantial paper on a special journalism topic. Individual instruction. May be repeated for credit. Prerequisite: Admission to the Journalism Honors Program and consent of the director of the school.

### **J 379P. Photojournalism Research Projects.**

Restricted to journalism majors. Designed to give photojournalism students the opportunity to pursue special studies for which separate courses have not been organized. The equivalent of nine laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Journalism 310F (or 320D) and 311F (or 321C) with a grade of at least B- in each.

## **Graduate Courses**

### **J 380. Introduction to Research Methods.**

Research methods and ethics, from design to data analysis and report writing. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and admission to the journalism master's program in research and theory or to the journalism doctoral program.

### **J 080C. Introduction to Graduate Studies in Journalism and Media.**

Discuss journalism and media research, theory, and professional development. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **J 380M. Advanced Projects in Photography.**

Advanced projects to demonstrate professional competence. Three lecture hours and four laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **J 380N. Advanced Projects in Journalism.**

Designed to prepare students to write the master's report. Students develop professional projects to demonstrate their competence in specialized skills; students present, discuss, and critique their own and other students' work. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **J 380V. Visual Journalism.**

Basics of aesthetics, visual design, photography, Web publishing, and videography. Two lecture hours and four laboratory hours a week for one semester. Required of first-year students in the journalism master's program professional track. Prerequisite: Graduate standing.

### **J 380W. Writing and Reporting.**

Three lecture hours and three laboratory hours a week for one semester. Required of all first-year students in the Master of Arts in journalism program, professional track. Prerequisite: Graduate standing.

### **J 381. Research Methods Seminar.**

Research techniques for investigating the control, content, audience, and effects of mass media. Three lecture hours a week for one semester. One topic is required of all candidates for the Master of Arts degree with a major in journalism. May be repeated for credit when the topics vary. Graduate standing.

**Topic 1: Content Analysis.**

**Topic 2: Experimental Design.**

**Topic 4: Qualitative Methods.**

**Topic 6: Qualitative Textual Analysis Methods.** Explore a variety of qualitative methods for analyzing texts for communication research. Apply various methods for qualitative analysis such as: critical discourse analysis, multi-modal discourse analysis, narrative analysis, feminist/queer/racialized analyses, interview analysis and conversational analysis and grounded theory analysis, among others.

### **J 381F. Fundamentals of Statistics.**

An introduction to descriptive and inferential statistical procedures commonly used in communication research. Explore basic underlying assumptions of common statistical procedures, how to test hypotheses using these statistical procedures and what inferences can be drawn from the results, how to critically evaluate statistical analyses of others, and how to conduct descriptive and basic inferential statistics using SPSS for analyses. Three lecture hours a week for one semester.

### **J 381M. Computational Media and Data Science.**

Examine advanced computational social science research methods through practical, hands-on applied data science projects in the field of computational media using large scale datasets from social media platforms. Three lecture hours a week for one semester. Prerequisite: Graduate standing; prior experience with one of the following is recommended: data science, data mining, statistics, or network analysis.

### **J 382. Seminar in Mass Communication.**

Readings, research, analyses in mass communications; oral and written reports in an area approved by the instructor. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 4: Agenda Setting.**

**Topic 5: Media Sociology.** Journalism 382 (Topic: Media Sociology) and 382 (Topic 5) may not both be counted.

### **J 382T. Theory Building.**

Examine the process of theory building and explore the construction of social science theories. Analyze models of the theory building process by tracing the development of popular contemporary social science theories. Advance a personal social science theory by using theory-building techniques and following specific theory building steps. Three lecture hours a week for one semester. Journalism 395 (Topic: Theory Building) and J382M may not both be counted. Prerequisite: Graduate standing.

### **J 383M. Frameworks of Media Innovation.**

Survey of innovative practices in media. Three lecture hours and three lab hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **J 383P. Advanced Visual Design.**

Advanced exploration of principles and processes of visual design, including design principles, visual perception, typography, image making, uses of color, printing techniques, and publication design. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **J 384. Mass Communication Theory.**

Study of the processes and effects of mass communication. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and admission to the journalism master's program in research and theory or the journalism doctoral program.

### **J 386. Public Relations Seminar.**

Readings, research, and analyses in public relations. Examination of the role of public relations in social, economic, and political campaigns.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Research Analyses in Public Relations.**

**Topic 2: Public Relations and Management.**

**Topic 3: Specialized Application of Public Relations.**

**Topic 4: International Public Relations.**

### **J 387M. Media Images: Theory and Methodology.**

Explores theoretical and methodological approaches to the study of images in media. Examines the biology and psychology of vision and how images "work" in media. Explores contemporary research on images in news, visual persuasion, political campaigns and criminal investigation. Methods for the study of media images, include content analysis, multi-modal discourse analysis, semiotics and effects experiments. Three lecture hours a week for one semester. Journalism 387M and 395 (Topic: Media Images: Theory & Methodology) may not both be counted. Prerequisite: Graduate standing.

### **J 387P. Cultural Survey of Photography.**

Examine the development of photography focused on reportage, documentary, and social issue art photography, including historical processes, the evolution of stylistic trends, and critical issues in the field. Explore the Harry Ransom Center and other University of Texas photographic archives. Three lecture hours a week for one semester. Journalism 387P and 395 (Topic: History of Photography) may not both be counted. Prerequisite: Graduate standing.

### **J 387S. Photographic Storytelling and Social Justice.**

Explore the production of images related to social justice issues. Three lecture hours and one and a half lab hours a week for one semester. Prerequisite: Graduate standing.

### **J 289, 389, 489. Problems in Specialized Fields.**

Research project chosen from area of student's major interests; written report required. Independent study. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Photojournalism.** Additional prerequisite: Journalism 380M.

### **J 389E. Professional Experience in Journalism.**

Supervised internship experience in a professional journalism setting. At least ten hours of fieldwork a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **J 390. Seminar in Journalism History.**

Research projects in the history of communication media; examination of the social, economic, and political relationships of the media within historical environments. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **J 390P. Advanced Documentary Project.**

Advanced exploration of documentary storytelling skills, with an emphasis on the skills required for the master's report. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing and Journalism 380M.

### **J 392. Seminar in Media Law.**

Research in selected areas of social and legal responsibilities of the media. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Constitutional Issues in Media Law.**

**Topic 2: Studies in Regulation of the Mass Media.**

## J 393S. Technology and Culture.

Analyze social and cultural issues related to communications technology systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

## J 395. Topics in Journalism.

Contemporary social, professional, and intellectual concerns with the practice of journalism. Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 2: Advanced Photo Editing and Design.** Advanced training in photo editing and publication design. Taught abroad; location may vary by semester. Only one of the following may be counted: Journalism 370K (Topic 1: Advanced Photo Editing and Design), 370K (Topic: Advanced Photojournalism in Czechoslovakia), 395 (Topic 2).

**Topic 4: Documentary Tradition of Latin America.** Same as Latin American Studies 381 (Topic 22). Study of still photographic and video documentary work by Latin Americans about Latin America. Production of photographic essays on Latin American culture. Three lecture hours and four laboratory hours a week for one semester. Journalism 395 (Topic 4) and Latin American Studies 381 (Topic 22) may not both be counted.

**Topic 9: International Reporting.** Designed to provide students with skills in foreign reporting and an understanding of international news production processes, with special emphasis on Latin America.

**Topic 10: Multimedia Journalism.** Review of online reporting techniques, advanced multimedia skills, and current issues in new media. Three lecture hours and three laboratory hours a week for one semester.

**Topic 11: Advanced Writing and Public Affairs Reporting.** Three lecture hours and three laboratory hours a week for one semester.

**Topic 12: Advanced Social Science Methods.**

**Topic 13: Framing Public Issues.**

**Topic 14: Qualitative Communication Theory.**

**Topic 16: Proseminar in Journalism.** Introduces doctoral students to major areas of research and selected researchers in journalism. Designed to help students cultivate scholarly skills, ethical norms, awareness of funding possibilities, and teaching skills.

**Topic 17: Reporting Asia: A Foreign Correspondent's Framework.** Dynamic ways of looking at, thinking about, and reporting the world. Establishment of a framework for analyzing how the news media cover key events, issues, and processes that shape our lives in a global society. Only one of the following may be counted: Journalism 340G, 349T (Topic 17: Reporting Asia), 395 (Topic 17: Reporting Asia).

**Topic 21: Historical Perspectives in Journalism.** Examines the development of the mass media through social, economic, and political factors that have contributed to changes in the press. Journalism 395 (Topic: Historical Perspectives in Journalism) and 395 (Topic 21) may not both be counted.

**Topic 23: Ethics in Journalism.**

**Topic 24: Media Law.** Examination of legal rights and restrictions for online and print journalism, including Constitutional guarantees, libel, invasion of privacy, and contempt of court. Only one of the following may be counted: Journalism 395 (Topic: Media Law), 395 (Topic: Media Law and Freedom of Expression), 395 (Topic 24).

**Topic 25: Business and Financial Reporting.** Conceptualizing, sourcing, and preparing news reports on global financial markets, commercial transactions, and company performance. Subject matter is global; the United States is a subset of material covered. Hands-on course during which students produce multiple news packages for publication.

**Topic 26: Covering Politics.** Specialized research, reporting, and writing skills to cover issues, candidates, and campaigns. Journalism

395 (Topic 26) and 395 (Topic: Politics and the Press) may not both be counted.

**Topic 27: Entrepreneurial Journalism.** For-profit and nonprofit journalistic enterprises in the news media ecosystem. Impact of digital technology on the news industry, with emphasis on changes to business and distribution models, and ways people consume and produce news and information. Emphasis on projects and prototypes that include business plans and content planning.

**Topic 28: Computer-Assisted Reporting.** Study of computer-assisted journalism, including electronic document retrieval and manipulation, spreadsheet and database management, and Internet skills. Collaborative work on major investigative projects.

**Topic 29: Oral History as Journalism.** Modules include concepts and methods of gathering oral history; illustration of the techniques using the Vietnam War as a topic; and generating oral history-based coverage focusing on the Mexican American experience.

**Topic 30: Investigative Reporting.** Emphasis on determining what an investigative story is, finding investigative stories, and basic tactics in pursuing those stories. Three lecture hours and three laboratory hours a week for one semester.

**Topic 31: Creative Nonfiction for Magazines and Books.** Reporting and writing skills for producing narrative nonfiction, including writing book proposals, magazine pitches, and sample chapters. Journalism 395 (Topic: Narrative Storytelling) and 395 (Topic 31) may not both be counted.

**Topic 32: Audio Storytelling.** Examination and practice of writing news for audio platforms.

**Topic 33: Explanatory Journalism: Storytelling in a Digital Age.** Examination of the evolution of long-form explanatory storytelling from print and film to new forms of Web-based and interactive storytelling. Three lecture hours and two laboratory hours a week for one semester. Journalism 395 (Topic: Storytelling in a Digital Age) and 395 (Topic 33) may not both be counted.

**Topic 34: Advanced Visual Journalism: Photo.** Explores intensive photographic reportage and documentation using the camera as a tool of investigation and interaction. Emphasis on creation of photo stories, photo essays, and feature stories, with editing and page layout. Three lecture hours and three laboratory hours a week for one semester.

**Topic 35: Producing Social Documentaries for Television News.** Instruction in the production of social documentaries for television, with emphasis on social issues often ignored by television news. Includes production of a twenty-minute long-form story. Three lecture hours and three laboratory hours a week for one semester. Additional prerequisite: Consent of instructor.

**Topic 36: Opinion Writing.** Examines opinion writing and commentary in traditional print and evolving online formats.

**Topic 38: Reporting Latin America.** Foreign reporting skills and international news production processes, with special emphasis on Latin America.

**Topic 39: Covering the Latino Community in the United States.** Development and challenging of views of the contemporary Latino community. Topics include a history of ethnic groups in the United States and their politics, education, organizations, immigration, culture, power, and media. Students will apply what they learn to other underrepresented people in the United States.

**Topic 40: Reporting China: A Foreign Correspondent's Workshop.** Contemporary social, professional, and intellectual concerns with the practice of journalism.

**Topic 41: Reporting the World: A Critical Examination of the United States News Media.** Examination of dynamic ways of looking at, thinking about, and reporting the world, both abroad and at home. Establishes a framework for analyzing how the news media cover key events, issues, and processes that shape our lives in a global society.

Journalism 395 (Topic: Reporting the World) and 395 (Topic 40) may not both be counted.

**Topic 42: Human Rights Journalism.** Exploration of the role of journalists in exposing human rights abuses. Modules include case studies from El Salvador, South Africa, Zimbabwe, Rwanda, Bosnia, Sudan, Israel, and Russia, as well as the legal and moral obligations of journalists as witnesses to atrocities and genocide. Examination of the Bush Administration's global War on Terror and the legacy confronting the Obama Presidency.

**Topic 43: Minorities and the Media.** Issues concerning minority or nondominant groups in the United States. Survey of minority communication problems, including alienation, fragmentation, and media and Internet access. Criticism and feedback for minority groups based on racial/ethnic background, age, sex, disability, social or economic class, and sexual orientation.

**Topic 44: Reporting Texas.** Students work as online reporters, photographers, and editors for the School of Journalism's Reporting Texas Web site.

**Topic 46: Gender and the News.** Explores how gender relates to news, both historically and currently, and the role of the news media in reinforcing and/or challenging prevailing stereotypes and attitudes about gender. Focuses on women both as producers of journalism and as subjects of media portrayals. Journalism 395 (Topic: Gender and the News) and 395 (Topic 46) may not both be counted.

**Topic 47: Living in the Information Age.** Examines communication and information technologies, and how individuals, media organizations and corporations employ the Internet for their benefit. Explores how the communication and information technologies evolve and the cultural, economic, political, and social implications of such technologies for society. Journalism 395 (Topic: Living in the Information Age) and 395 (Topic 47) may not both be counted.

**Topic 48: Mobile News Application Design.** Students will work toward building an iPhone application in one semester, with the goal of having an application accepted in the Apple App Store. Journalism 395 (Topic: Mobile News Application Design) and 395 (Topic 48) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 49: Media and Politics.**

**Topic 50: News for a Mobile Audience.** Examines the mobile world and how journalism and the news audience fit in it. Journalism 395 (Topic: News for a Mobile Audience) and 395 (Topic 50) may not both be counted.

**Topic 51: Quantitative Research Practicum.** Contemporary social, professional, and intellectual concerns with the practice of journalism. Journalism 395 (Topic: Quantitative Research Practicum) and 395 (Topic 51) may not both be counted.

**Topic 52: Reporting on the Environment.** Journalism 395 (Topic: Reporting on the Environment) and 395 (Topic 52) may not both be counted.

**Topic 53: Studio Photography.** An investigation of the fundamentals of photography using principles of studio lighting, theory and practice of contemporary color, location lighting, and production of portfolio-quality work, as applicable to advertising, photographic illustration, and photojournalism. Three lecture hours a week for one semester, with additional hours to be arranged. Journalism 395 (Topic: Studio Photography) and 395 (Topic 53) may not both be counted.

**Topic 54: Web Design for Journalists.** Journalism 395 (Topic: Web Design for Journalism) and 395 (Topic 54) may not both be counted.

**Topic 55: Economics of New Media.** Subjects include the structure, behavior, and performance of media operations; audience behaviors and preferences; competition; and social implications. Journalism 395 (Topic: Economics of New Media) and 395 (Topic 55) may not both be counted.

**Topic 56: Covering the Global Economy.** Journalism 395 (Topic: Covering the Global Economy) and 395 (Topic 56) may not both be counted.

**Topic 57: Journalism and Religion.** Explores some of the world's belief systems, including Judaism, Christianity, Islam, Baha'i, Hinduism, Buddhism, and atheism. Journalism 395 (Topic: Journalism and Religion) and 395 (Topic 57) may not both be counted.

**Topic 58: Media Management.** Examines how and why media leaders behave and operate by assessing current and past research, theories, and practice to arrive at a better view of what it is like to direct and manage a media organization. Students will investigate issues such as market orientation, diversity, group culture, competition, ownership, structure, ethics, and leadership from a media organizational standpoint. Journalism 395 (Topic: Media Management) and 395 (Topic 58) may not both be counted.

**Topic 59: Long-form Feature Writing.** Explores long-form journalism for print, online and books. Students will study the use of narrative, immersion, profile/biography, plots, back stories, and voice. Journalism 395 (Topic: Long-form Feature Writing) and 395 (Topic 59) may not both be counted.

**Topic 60: Media, Culture, and Civic Engagement.** Journalism 395 (Topic: Media, Culture, and Civic Engagement) and 395 (Topic 60) may not both be counted.

**Topic 61: Sports for Reporting Texas.** Designed to serve reportingtexas.com, the School of Journalism's open-content news Web site. Students will produce original and high-quality journalism for and about Central Texas. Journalism 395 (Topic: Sports for Reporting Texas) and 395 (Topic 61) may not both be counted.

**Topic 62: Reporting with Data.** Examine basics of computer-assisted reporting. Explore how to find compelling data sets; clean and analyze the contents; use data visualization and simple statistical models to accurately report based on the data; and present results through stories, charts, and maps. Only one of the following may be counted: Journalism 395 (Topic: Data Visualization), 395 (Topic 45), or 395 (Topic 62).

**Topic 63: Oral History in Multimedia Storytelling.** Instruction in the use of oral history to generate long-term archival material and short-term multimedia stories. Covers concepts and methods of gathering oral history; a topic (varies by semester) centering on U.S. Latinos; and ways to build a multimedia representation of the interview.

**Topic 64: Online Incivility.** Explores online incivility - defined as nasty remarks intended to hurt that often contain profanity, capital letters to indicate yelling, and put-downs or name-calling - in news story comments and social media. Critically assess the impact of incivility on public discussions online and how that influences journalists and other media practitioners. Journalism 395 (Topic: Online Incivility) and 395 (Topic 64) may not both be counted.

**Topic 65: Introduction to Coding for Journalists.** Explore basic coding skills and develop best practices used in digital newsrooms to create data-driven online presentations. Journalism 395 (Topic: Introduction to Coding for Journalists) and 395 (Topic 65) may not be counted.

**Topic 66: Media Innovation and Entrepreneurship.** Learn how the digital revolution has disrupted the media industry, creating opportunities for entrepreneurial, innovative initiatives. Study cases of successful media startups, and develop a startup project, using digital technologies and human-centered design. Journalism 395 (Topic: Entrepreneurial Journalism) and 395 (Topic 66) may not both be counted.

**Topic 67: Digital Production and Analytics.** Examine the digital publishing process, including planning, production, tracking, and marketing. Three lecture hours a week for one semester.

**Topic 68: Social Capital and Social Networks.** Explore theories, methods, and applications, drawing on literatures from sociology, communication, media studies, and management. Examine the relational and structural embeddedness of actors, communities, and organizations, and focus on how to collect network data and do network analysis. Only one of the following may be counted: Radio-Television-Film 380G (Topic: Social Capital and Social Networks),

380G (Topic 2), Sociology 396P (Topic: Social Capital and Social Networks), 396P (Topic 18), Journalism 395 (Topic 68).

**Topic 69: Advanced Reporting with Data.** Explore advanced data-assisted reporting techniques through use of databases, scripted analysis, and visualizations. Additional prerequisite: Journalism 395 (Topic 62).

**Topic 70: Globalization and Social Media.** Perform a critical analysis of the causes, patterns, and consequences of social media production and usage in a global context. Examine cases from diverse cultures and nations, and engage with major debates on the role of communication and media technologies in network society, globalization, and transnationalism. Investigate how social media and other new technologies have facilitated changes in politics, organizations, and networks, as well as media and culture. Only one of the following may count: Journalism 395 (Topic 70), Radio-Television-Film 393P, or Sociology 395D.

### **J 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in journalism and consent of the graduate adviser; for 698B, Journalism 698A.

### **J 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in journalism and consent of the graduate adviser.

### **J 398T. Supervised Teaching in Journalism.**

Teaching under the close supervision of the course instructor; weekly group meetings with the instructor, individual consultations, and reports required throughout the teaching period. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, appointment as a teaching assistant, and consent of the graduate adviser.

### **J 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Kinesiology Courses**

## **Kinesiology: KIN**

### **Lower-Division Courses**

#### **KIN 310. Physiological Basis of Conditioning.**

Explores the ways that the human body responds to exercise and physical activity. Covers reasons that exercise is beneficial, how the body responds to exercise, and how to apply the principles of conditioning. Three lecture hours a week for one semester.

#### **KIN 311. Water Safety Instruction and Lifeguard Training.**

Principles and practical application of water safety instruction and lifeguard training, personal water safety skills sets, professional rescues, first aid, and CPR/AED programs. Successful completion of course sessions, activities, lectures, skill development and evaluation requirements will qualify the student to test for certifications from nationally recognized safety agencies. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Kinesiology 311, 213 (Topic 2: Water Safety Instruction), 213 (Topic 4: Lifeguarding Instruction). Offered on the letter-grade basis only.

#### **KIN 311K. Sport Psychology.**

Through the materials presented in this course, become familiar with the fundamental principles of sport and social psychology and their impact on sports performance and athlete well-being. Develop life-skills, such as, self-regulation, productive responses to adversity, stress-management, the setting of goals and achieving them, interpersonal communication, and leadership. Three lecture hours a week for one semester.

#### **KIN 312. Issues in Kinesiology: Topical Studies.**

Analysis and discussion of current issues within the discipline of kinesiology. Three lecture hours a week for one semester. Additional hours may be required for some topics. May be repeated for credit when the topics vary.

##### **Topic 2 (TCCN: KINE 2356, PHED 2356): Care and Prevention of**

**Athletic Injuries.** Principles of athletic training, including mechanisms, signs and symptoms, treatments, and basic rehabilitation of athletic injuries and illnesses. Three lecture hours and one laboratory/discussion hour a week for one semester.

**Topic 3: Fundamentals of Coaching.** An introduction to the principles and practices of coaching as they relate to the integration of sports science, practice structure and design, and the development of a coaching philosophy. Involves group work and field experience with youth athletic organizations.

##### **Topic 4: Philosophy and Leadership in Sport & Physical Activity.**

**Topic 5: Sport Industry in America.** Kinesiology 312 (Topic: Sport Industry in America) and 312 (Topic 5) may not both be counted.

#### **KIN 312G. Golf Instruction.**

Designed to train students to teach the game of golf. Three lecture hours a week for one semester, with additional fieldwork hours to be arranged. Prerequisite: Consent of instructor.

#### **KIN 312M. Management of Physical Activity and Sport Programs.**

Designed for applied movement science, health education, and kinesiology majors. Introduction to the purpose and function of sport and sport management in society, including management, marketing, events, and other components of the field. The equivalent of three lecture hours a week for one semester.

#### **KIN 213. Safety Information and Procedures.**

Factors affecting human safety; techniques and procedures to promote and ensure safe living. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary.

##### **Topic 1: First Aid.**

**Topic 2: Water Safety Instruction.** Restricted to Kinesiology and Health Education majors; open to others with consent of instructor. Trains instructor candidates to teach courses in swimming and water safety by developing their understanding of how to use the course materials, conduct training sessions and evaluate participants' progress. Students will be introduced to several swimming strokes, springboard diving, cardiovascular conditioning, exercise physiology, nutrition, personal safety. Elementary rescue skills and basic snorkeling techniques. Culminates in American Red Cross certification. Prerequisite: Swimming proficiency and confidence in deep water.

##### **Topic 3: Lifeguarding.**

##### **Topic 4: Lifeguarding Instruction.**

#### **KIN 314 (TCCN: KINE 1331, PHED 1331). Children's Movement.**

Covers skills to support positive, effective physical education and to implement well-planned and stimulating physical activity for

children. Focus on integrating academic content with physically active classrooms. Subjects include principles of movement and motor development in children, curriculum, legislation and policy, physiological principles, learning principles, coordinated school health (CSH), and comprehensive school physical activity programming (CSPAP). The equivalent of three lecture hours and three laboratory hours a week for one semester, with additional off-campus school service learning project hours to be arranged.

### **KIN 315. Motor Learning.**

Psychological factors affecting performance and acquisition of motor skills. Three lecture hours and one laboratory hour a week for one semester. Kinesiology 315 and 335C may not both be counted. Prerequisite: Psychology 301.

### **KIN 316. Structure and Organization of Sport Programs.**

Introduction to sport management and effective organizational behavior for sport programs. Analysis of the dynamic management process necessary for the improvement of organizational productivity. Three lecture hours a week for one semester. May be repeated once for credit. Prerequisite: Kinesiology 312M.

### **KIN 217. Advanced Scuba Diving Leadership.**

Designed to prepare experienced scuba divers to instruct, organize, and conduct safe, appropriate-level dives for certified divers. Also designed to prepare students to apply for certification as a National Association of Underwater Instructors (NAUI) Assistant Instructor or Divemaster. Three lecture or open-water hours a week, and three internship hours a week for one semester participating in the training of entry-level students. Prerequisite: Certification as a scuba rescue diver and as a National Association of Underwater Instructor (NAUI) Master Scuba Diver, or equivalent knowledge and experience.

### **KIN 119. Movement Competence.**

Designed for applied movement science, health education, and kinesiology majors. Introduces a variety of movement and dance activities that can be used to teach rhythm to youth, with an emphasis on grades K-6. The equivalent of three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Archery.**

**Topic 2: Ballet.**

**Topic 3: Bowling.**

**Topic 4: Diving.**

**Topic 5: Fencing.**

**Topic 6: Golf.**

**Topic 7: Scuba Diving.**

**Topic 8: Swimming.** Designed for kinesiology and health education majors. Development of swimming techniques including instruction in seven swimming strokes, springboard diving, cardiovascular conditioning, exercise physiology concepts, nutrition, personal safety, elementary rescue skills, CPR/AED and basic snorkeling techniques. Provides preparation for American Red Cross certification. Additional prerequisite: Comfortable in deep water and able to swim two lengths using two strokes, or consent of instructor; for non-kinesiology majors, consent of instructor.

**Topic 10: Conditioning.** Basic principles involved in designing a sound conditioning program emphasizing resistance training techniques. Prerequisite: Physical Education 106C (Topic 7: Weight Training), or consent of instructor.

**Topic 11: Rhythmic Activities and Dance.** Designed for applied movement science majors, and kinesiology and health education majors. Introduces a variety of movement and dance activities that can be used to teach rhythm to youth, with an emphasis on grades K-6.

**Topic 12: Gymnastics.**

**Topic 13: Manipulative Activities.**

**Topic 14: Tennis.** Introduction to methods, progressions, strategies, and teaching cues appropriate for playing, teaching, and coaching basic tennis.

**Topic 15: Volleyball.** Introduction to methods, progressions, and teaching cues appropriate for playing, teaching, and coaching basic volleyball.

**Topic 16: Social Dance: Leads.** Designed for applied movement science majors, and kinesiology and health education majors. Introduction to popular social partner dances, including swing, waltz, salsa, tango, two-step and more. Emphasis on connecting with a dance partner and the art of both leading and following. Optional dance labs for additional practice are offered. Only one of the following may be counted: Kinesiology 119 (Topic 16), Kinesiology 119 (Topic 20), Physical Education 103L (Topic 1), 103L (Topic 7). Additional prerequisite: Consent of instructor.

**Topic 17: Basketball.** Designed for applied movement science majors, and kinesiology and health education majors. Introduces methods, progressions, strategies and teaching cues appropriate for playing, teaching, and coaching basic basketball.

**Topic 18: Adventure Activities.** Acquisition and knowledge of basic skills needed to participate in outdoor/adventure activities. Examines methods, progressions, drills, and performance cues appropriate for participating in and leading outdoor/adventure activities. Includes off-campus activities. Students will need to demonstrate basic swimming skills during the first week of class.

**Topic 19: Kinesthetic Awareness and Core Body Development.**

Introduction to basic movement skills from simple to more complex, and how they relate to more advanced sport skills through developmental gymnastics, yoga, Pilates, and martial arts. Additional prerequisite: A major in applied movement science.

**Topic 20: Social Dance: Follows.** Designed for applied movement science majors, and kinesiology and health education majors. Introduction to popular social partner dances, including swing, waltz, salsa, tango, two-step and more. Emphasis on connecting with a dance partner and the art of both leading and following. Optional dance labs for additional practice are offered. Only one of the following may be counted: Kinesiology 119 (Topic 16), Kinesiology 119 (Topic 20), Physical Education 103L (Topic 1), 103L (Topic 7). Additional prerequisite: Consent of instructor.

### **KIN 119C. Aiding for Social Dance.**

Supervised aiding in social dance leads/follows courses. Three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor.

### **KIN 219D. Movement Analysis: Dual Activities.**

Designed for applied movement science, health education, and kinesiology majors. Application of biomechanical and motor learning principles to selected movement activities, with particular emphasis on dual sports. Includes physical activity. The equivalent of two lecture hours and one laboratory hour a week for one semester.

### **KIN 219G. Advanced Golf.**

Designed for the advanced golfer. Includes technical swing analysis and instruction, course management and course play, and tournament play. Two lecture hours a week for one semester, with additional fieldwork hours to be arranged. Prerequisite: Consent of instructor, and a certified Professional Golfers Association (PGA) handicap of 15 or below or equivalent proficiency.

### **KIN 219K. Athletics.**

Knowledge and skills required for officials, coaches, and athletic trainers of interschool sports. Two lecture hours and two laboratory hours a

week for one semester. May be repeated for credit when the topics vary.  
Prerequisite: Varies with the topic.

**Topic 1: Coaching.**

**Topic 2: Officiating.**

**Topic 3: Introduction to Athletic Training.** Designed for athletic training majors. An introduction to athletic training principles and theories, including the prevention, recognition, and management of athletic injuries and illnesses. Includes basic skill development in areas such as first aid, emergency care, and supportive taping, wrapping, and bracing. Requires completion of a one-day CPR and AED (BLS) course outside of class time.

**KIN 219L. Teaching Social Dance.**

Explore the basic footwork, partnering skills, and variations for a variety of social dances, and create new ideas within those styles; selection of music appropriate for each dance style and DJ this music at dance events; and researching and reconstructing social dance forms from around the world, historical and contemporary. Three laboratory hours a week for one semester. Prerequisite: Physical Education 103L (Topic 1) or 103L (Topic 7), or Kinesiology 119 (Topic 16) or 119 (Topic 20), and consent of instructor.

**KIN 219M. Advanced Running.**

Explores various advanced aspects of running training regimens, with emphasis on interval training, fartlek, speed play, long slow distance used in competitive running. Includes functional assistive training movements: flexibility and stretching, plyometrics and bounding. Three laboratory hours a week for one semester. Prerequisite: PED 106D (Topic 2) or consent of instructor.

**KIN 219N. Advanced Volleyball.**

For those with high levels of skills and knowledge of multiple offenses and defenses. Explores various aspects of competitive volleyball with emphasis on strategic utilization of defenses used in interscholastic and intercollegiate competitive teams. Three laboratory hours a week for one semester. Prerequisite: Physical Education 108J (Topic 2) or consent of instructor.

**KIN 219P. Advanced Swimming.**

Designed for the advanced swimmer. Includes technical stroke analysis on four power strokes and exposure training/conditioning programs used by interscholastic and intercollegiate competitive programs. Expanded emphasis is on body form, stroke efficiency, and conditioning in all strokes. Three laboratory hours a week for one semester. Prerequisite: Physical Education 106C (Topic 1) or Physical Education 101J (Topic 5) or consent of instructor.

**KIN 119R, 219R, 319R, 419R, 519R, 619R, 719R, 819R, 919R. Topics in Kinesiology.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Kinesiology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**KIN 219S. Movement Analysis: Individual Activities.**

Restricted to kinesiology and health education majors. Application of movement skill analysis and biomechanical principles, physical laws of movement, fitness training principles and programs, exercise physiology, performance techniques, and skill progressions in individual activities and sport. Two lecture hours and one laboratory hour a week for one semester.

**KIN 219T. Movement Analysis: Team Activities.**

Application of scientific and psychosocial aspects of team sports, basic mechanical principles, and basic progressions relevant to performing and teaching selected team sport skills. Students also learn basic strategies and tasks related to coaching and organizing a team. Two lecture hours and one laboratory hour a week for one semester.

**Upper-Division Courses**

**KIN 320. Applied Biomechanics of Human Movement.**

Designed to provide students with an understanding of applied scientific analysis of movement. Examines the physiological, structural, and mechanical bases for human movement, with examples drawn from sport and rehabilitation. Lectures concentrate on a scientific approach to mechanisms underlying human movement and to strategies and practices of clinical and sport applications. Laboratory sessions focus on both theoretical and applied aspects of selected mechanical concepts. Two lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Kinesiology 424K and Mathematics 305G, 408K, 408C, or 408N.

**KIN 321. Theory of Human Performance.**

Designed for applied movement science, health education, and kinesiology majors. Examines foundational knowledge of theories of human performance and development and the concomitant changes that occur during an individual's lifespan. Explores interactive theories of the associated physiological, biomechanical, and cognitive disciplines that explain the control systems of the human body while in motion and subsequent development. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**KIN 321M. Motor Development and Performance.**

A review of movement skill progressions with emphasis on the processes that underlie changes in movement competence. Typical growth and maturation from birth to adulthood serves as the metric against which to identify atypical development. The principles underlying motor skill changes are applied to teaching, coaching, and clinical applications. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Upper-division standing.

**KIN 322. Diagnosis and Evaluation of Fitness.**

Covers the science behind assessing physical fitness, and the role of physical activity and exercise in prevention and rehabilitation of cardio-respiratory and metabolic diseases. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: For Athletic Training and Kinesiology and Health majors, Kinesiology 310 and Kinesiology 424K; for others, Kinesiology 310; and Kinesiology 424K or 446L.

**KIN 424K. Applied Human Anatomy.**

Combines the study of systematic and regional human anatomy. Includes applications of the skeletal system, and attachments and actions of muscles, with an emphasis on the mechanics of support and motion and their clinical applications. Three lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Biology 478L, Kinesiology 324K, 424K. Prerequisite: For applied movement science, health education, and kinesiology majors, Kinesiology 310.

**KIN 425K. Physiology of Exercise.**

Application of principles of physiology to muscular activities and an examination of physiological responses and adaptations to both acute and chronic exercise. Three lecture hours and one and one-half laboratory hours a week for one semester. Kinesiology 325K and 425K may not both be counted. Prerequisite: For Athletic Training and

Kinesiology and Health majors, Kinesiology 424K; for others, Kinesiology 424K, Biology 416K, or 446L.

### **KIN 226. Advanced Weight Training.**

Explores various advanced techniques of weight training, with emphasis on the lifts used in the competitive strength sports of weightlifting and powerlifting. Includes plyometrics and functional training movements for athletic enhancement. Two lecture hours a week for one semester. Prerequisite: Physical Education 106C or Kinesiology 119 or consent of instructor.

### **KIN 326K. Biomechanical Analysis of Movement.**

Study of the principles of equilibrium, force, and motion as applied to humans. Includes applications to human movement and to biological tissues and structures, with emphasis on practical applications (e.g., human performance, causes/prevention of injury etc.). Three lecture hours a week for one semester. Prerequisite: For athletic training and kinesiology and health education majors: Kinesiology 424K; Mathematics 408C or 408K or 408N; and Physics 302K or 317K. For others: Biology 416K or Biology 446L; Kinesiology 424K; Mathematics 408C or 408K or 408N; and Physics 302K or 317K.

### **KIN 127D, 227D, 327D, 627D. Fieldwork: Aiding.**

Supervised fieldwork in appropriate activity courses. For 127D, up to three hours of fieldwork a week for one semester; for 227D, up to six hours of fieldwork a week for one semester; for 327D, up to nine hours of fieldwork a week for one semester; for 627D, up to twenty hours of fieldwork a week for one semester. May be repeated for credit up to twelve semester hours. No more than twelve semester hours in kinesiology or health education fieldwork or internship credit may be counted. May be repeated for credit. Prerequisite: Consent of instructor.

### **KIN 127E, 227E, 327E, 627E. Fieldwork: Applied Learning and Development Majors.**

Restricted to applied learning and development majors. Supervised fieldwork or clinical work in appropriate activities. For 127E, up to three hours of fieldwork a week for one semester; for 227E, up to six hours of fieldwork a week for one semester; for 327E, up to nine hours of fieldwork a week for one semester; for 627E, up to twenty hours of fieldwork a week for one semester. May be repeated for credit up to twelve semester hours. No more than twelve semester hours in kinesiology or health education fieldwork or internship credit may be counted. May be repeated for credit. Prerequisite: Consent of instructor.

### **KIN 627F. Internship.**

Restricted to health education and kinesiology majors. Supervised fieldwork or clinical work in appropriate activities. The equivalent of twenty lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when topics vary up to twelve semester hours. No more than twelve semester hours in health education or kinesiology fieldwork or internship credit may be counted. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Kinesiology 327T (Topic 1) or 327T (Topic 2), a University grade point average of at least 2.50, and consent of instructor.

**Topic 1: Internship in Health Fitness.**

**Topic 2: Internship in Medical Fitness.**

### **KIN 127J, 227J, 327J, 627J. Fieldwork: Off Campus.**

Supervised fieldwork or clinical work in appropriate activities off campus. For 127J, up to three hours of fieldwork a week for one semester; for 227J, up to six hours of fieldwork a week for one semester; for 327J, up to nine hours of fieldwork a week for one semester; for 627J, up to twenty hours of fieldwork a week for one semester. May be repeated for credit up to twelve semester hours. No more than twelve semester hours

in kinesiology or health education fieldwork or internship credit may be counted. May be repeated for credit. Prerequisite: Consent of instructor.

### **KIN 127K, 227K, 327K, 627K. Fieldwork: On Campus.**

Supervised fieldwork or clinical work in appropriate activities on campus. For 127K, up to three hours of fieldwork a week for one semester; for 227K, up to six hours of fieldwork a week for one semester; for 327K, up to nine hours of fieldwork a week for one semester; for 627K, up to twenty hours of fieldwork a week for one semester. May be repeated for credit up to twelve semester hours. No more than twelve semester hours in kinesiology or health education fieldwork or internship credit may be counted. May be repeated for credit. Prerequisite: Consent of instructor.

### **KIN 127M. Exploring Teaching and Physical Activity Leadership.**

Restricted to applied movement science majors. Supervised fieldwork or clinical work in appropriate activities. One lecture hour and two hours of fieldwork each week for one semester. No more than twelve semester hours in kinesiology or health education fieldwork or internship credit may be counted. May be repeated for credit. Prerequisite: Consent of instructor.

### **KIN 127R, 227R, 327R, 627R. Fieldwork: Lab Research.**

Supervised fieldwork or clinical work in appropriate activities. For 127R, up to three hours of fieldwork a week for one semester; for 227R, up to six hours of fieldwork a week for one semester; for 327R, up to nine hours of fieldwork a week for one semester; for 627R, up to twenty hours of fieldwork a week for one semester. May be repeated for credit up to twelve semester hours. No more than twelve semester hours in kinesiology or health education fieldwork or internship credit may be counted. May be repeated for credit. Prerequisite: Consent of instructor.

### **KIN 327T. Internship.**

Designed for health education and kinesiology majors or minors. Supervised fieldwork or clinical work in appropriate activities. Students are required to obtain 135 hours of supervised internship. May be repeated for credit when topics vary up to twelve semester hours. No more than twelve semester hours in health education or kinesiology fieldwork or internship credit may be counted. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, a University grade point average of at least 2.50, and consent of instructor; additional prerequisites vary by topic.

**Topic 1: Clinical Exercise Testing.** Kinesiology 327L (Topic 6) and 327T (Topic 1) may not both be counted. Additional prerequisite: Kinesiology 322

**Topic 2: Personal Training.** Kinesiology 327L (Topic 5) and 327T (Topic 2) may not both be counted. Additional prerequisite: Kinesiology 332.

**Topic 3: Practicum in Disabilities.** Supervised academic service learning or clinical hours in instructor approved environments. Kinesiology 327L (Topic 9) and 327T (Topic 3) may not both be counted.

**Topic 4: Strength and Condition Coaching.** Additional prerequisite: Credit or concurrent enrollment in Kinesiology 226 or 363.

### **KIN 628. Fieldwork in Sport Management.**

Restricted to sport management majors. Twenty-seven hours of fieldwork a week for one semester. Requires 270 hours overall or about 20 hours per week. Students will be required to have no more than six hours remaining in their cognate to be eligible. May be taken twice for credit. No more than twelve semester hours in the following courses may be counted: Kinesiology 127L, 227L, 327L, 627L, 628. May be repeated for credit. Prerequisite: Upper-division standing, a University grade point average of at least 2.50, and consent of the faculty adviser.

### **KIN 328C. Internship in Sport Management.**

Restricted to students majoring in sport management. Supervised fieldwork or clinical work in appropriate activities. Students are required to obtain 135 hours of supervised internship. No more than twelve semester hours in health education or kinesiology fieldwork or internship credit may be counted. Only one of the following may be counted: Kinesiology 327L (Topic: Fieldwork in Sport Management), 327L (Topic 2), 628, 328C. May be repeated for credit. Prerequisite: Upper-division standing, a major grade point average of 2.50, and consent of instructor.

### **KIN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Kinesiology.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Kinesiology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **KIN 330E. Sport Nutrition.**

Explore the nutritional needs of people whose physical activity ranges from recreational to elite athletes. Develop practical dietary strategies based upon understanding how macronutrients, vitamins, minerals, water, and dietary supplements are digested and absorbed and how they effect metabolism. Three lecture hours a week for one semester.

### **KIN 331. Physical Aging in America.**

Three lecture hours a week for one semester. Kinesiology 331 and 352K (Topic: Physical Aging in America) may not both be counted. Prerequisite: Upper-division standing; Kinesiology 310, 315, or 325K; and six additional semester hours of coursework in kinesiology.

### **KIN 332. Techniques of Fitness Leadership.**

Practical application of theoretical content from exercise physiology, anatomy, and biomechanics. Emphasis on program design and development for healthy adults and special populations. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Kinesiology 310.

### **KIN 334. Children's Exercise and Physical Activity.**

Focuses on the capacity for physical performance by children and adolescents from both physiological and psychosocial perspectives. Addresses children's readiness for physical training and competitive activities. Considers the active and inactive child with, and without, disabilities and secondary disabling conditions. Entails development of programs designed to keep children appropriately active for a lifetime of positive health outcomes. Three lecture hours a week for one semester. Prerequisite: Kinesiology 310.

### **KIN 335C. Motor Learning.**

Psychological, behavioral, physiological, and environmental factors involved in performance and learning of motor skills; covers both theoretical and experimental evidence for the effects of these factors, with applications in physical activity, sport, and rehabilitation. Weekly laboratory sessions to collect and analyze data to assess motor performance and learning. Two lecture hours and one and one-half laboratory hours a week for one semester. Kinesiology 315 and 335C may not both be counted. Prerequisite: Psychology 301.

### **KIN 336. Neuromuscular Control.**

Study of the brain and motor and sensory pathways involved in the control of movement. Covers nerve, muscle, and sensory cell function along with spinal cord reflexes. Application to research and clinical populations is emphasized. Three lecture hours a week for one semester.

Prerequisite: For Athletic Training and Kinesiology and Health majors, Kinesiology 424K; for others, Kinesiology 424K or 446L.

### **KIN 338. Motor Development and Assessment.**

Training in screening, diagnostic, and programmatic motor assessment instruments. Designed to give students practical experience in assessing physical and motoric development in children with and without disabilities. Three lecture hours a week for one semester. Prerequisite: Kinesiology 321M; Kinesiology 360 topic 9 is recommended.

### **KIN 340. Modern Olympic Movement in World Affairs.**

Examination of the place of the modern Olympic movement in world affairs. The cultural, political, and economic dynamics of this relationship will receive special emphasis.

### **KIN 140C. Practicum in Athletic Training: Level 1A.**

Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, and immediate care of injuries and illnesses suffered by athletic and physically active populations. Students use cognitive, psychomotor, and affective skills and knowledge to complete a prescribed set of educational competencies and clinical proficiencies under the direction of an approved clinical instructor. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

### **KIN 140D. Practicum in Athletic Training: Level 1B.**

Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, immediate care, and treatment of injuries and illnesses suffered by athletic and physically active populations. Emphasizes the application of therapeutic modalities and soft-tissue therapy techniques. Students use cognitive psychomotor and affective skills and knowledge to complete a prescribed set of educational competencies and clinical proficiencies under the direction of a clinical preceptor. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

### **KIN 140E. Practicum in Athletic Training: Level 2A.**

Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, immediate care, treatment, evaluation, and diagnosis of injuries and illnesses suffered by athletic and physically active populations. Emphasizes clinical evaluation and assessment techniques. Students use cognitive, psychomotor, and affective skills and knowledge to complete a prescribed set of educational competencies and clinical proficiencies under the direction of an approved clinical instructor. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

### **KIN 140F. Practicum in Athletic Training: Level 2B.**

Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, immediate care, treatment, evaluation, diagnosis, rehabilitation, and reconditioning of injuries and illnesses suffered by athletic and physically active populations. Emphasizes therapeutic exercise and rehabilitation procedures. Students use cognitive, psychomotor, and affective skills and knowledge to complete a prescribed set of educational competencies and clinical proficiencies under the direction of a clinical preceptor. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

### **KIN 140G. Practicum in Athletic Training: Level 3A.**

Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, immediate care, treatment, evaluation, diagnosis, rehabilitation, and reconditioning

of injuries and illnesses suffered by athletic and physically active populations. Emphasizes general medical conditions. Students use cognitive psychomotor and affective skills and knowledge to complete a prescribed set of educational competencies and clinical proficiencies under the direction of an approved clinical instructor. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

#### **KIN 140J. Practicum in Athletic Training: Level 3B.**

Supervised clinical experiences in the application of concepts, theories, and techniques associated with the prevention, recognition, immediate care, treatment, evaluation, diagnosis, rehabilitation, and reconditioning of injuries and illnesses suffered by athletic and physically active populations. Emphasizes the administrative and professional aspects of managing these conditions. Students use cognitive psychomotor and affective skills and knowledge to complete a prescribed set of education competencies and clinical proficiencies under the direction of a clinical preceptor. One lecture hour and twenty hours of fieldwork a week for one semester. Prerequisite: Consent of instructor.

#### **KIN 140M. Advanced Manual Therapy.**

Designed for athletic training majors. Examines the theory and application of manual therapy techniques in patient care. The athletics and physically active populations will be targeted and an aggressive treatment approach for the restoration of function as quickly and as safely as possible will be emphasized. One lecture hour and one laboratory hour a week for one semester. May be repeated for credit.

#### **KIN 140S. Senior Seminar in Athletic Training.**

Designed for athletic training majors. Explores the study and practice of reviewing and applying research findings and evidence based practice concepts to ask and answer clinically relevant questions affecting clinical practice for athletic trainers. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Enrollment in the Athletic Training Program or consent of instructor.

#### **KIN 341. Therapeutic Modalities in Athletic Training.**

Designed for athletic training majors. The study and practice of using therapeutic modalities, including soft tissue and manual therapy techniques, to treat athletic injuries. Covers physiological effects, indications, contraindications, protocols, injury pathology, and tissue healing. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: For non-athletic training majors, consent of instructor.

#### **KIN 342. Clinical Evaluation of Athletic Injuries in the Lower Body.**

Designed for athletic training majors. The study and practice of techniques involved in the evaluation of athletic injuries affecting the lower body. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: For non-athletic training majors, consent of instructor.

#### **KIN 343. Clinical Evaluation of Athletic Injuries in the Upper Body.**

Designed for athletic training majors. The study and practice of techniques involved in the evaluation of athletic injuries affecting the upper body. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: For non-athletic training majors, consent of instructor.

#### **KIN 344. Therapeutic Exercise and Rehabilitation Techniques: Lower Body.**

Designed for athletic training majors. The study and practice of therapeutic exercise techniques and rehabilitation protocols in treating

athletic injuries and illnesses. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: For non-athletic training majors, consent of instructor and concurrent enrollment in Kinesiology 344U.

#### **KIN 344U. Therapeutic Exercise and Rehabilitation: Upper Body.**

Designed for athletic training majors. Explores the theory and application of therapeutic exercise techniques and rehabilitation protocols. The athletics and physically active populations will be targeted and an aggressive treatment approach for the restoration of function as quickly and as safely as possible will be emphasized. The classroom and laboratory experiences will provide the student with opportunities to apply these techniques under the direct guidance of knowledgeable clinicians specializing in athletic training. Three lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: For non-athletic training majors, consent of instructor and concurrent enrollment in Kinesiology 344.

#### **KIN 345. General Medical Conditions in Athletic Training.**

Designed for athletic training majors. Presentations, including some by medical and allied medical specialists, covering topics in athletic training and sports medicine. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: For non-athletic training majors, consent of instructor.

#### **KIN 346. Athletic Training Program Administration.**

Designed for athletic training majors. The study of organizational and administrative principles involved with athletic training programs. Includes legal issues, budgetary concerns, and policies and procedures. Also includes resume development and career planning. Three lecture hours a week for one semester. Prerequisite: For non-athletic training majors, consent of instructor.

#### **KIN 347. Historical and Ethical Issues in Physical Culture and Sports.**

Designed for kinesiology and health education majors. Explores the history of sport industry and sport science and how laboratory revelations lead to new fitness regimens. Covers ethical issues in the field of physical culture and sport, such as the use of ergogenic drugs, the social consequences of high performance sport, and professional ethics in the fields of kinesiology and health education. Two lecture hours and one discussion section hour a week for one semester.

#### **KIN 348. Psychological Aspects of Exercise.**

Designed for applied movement science, health education, and kinesiology majors. Examines both the psychological benefits that accrue from exercise, such as reduced depression and stress, as well as the psychological predictors of exercise adherence. Three lecture hours a week for one semester.

#### **KIN 349. History of Sport and Physical Activity.**

Restricted to students in the Bachelor of Science in Kinesiology and Health with a major in physical culture and sports or sport management. Significant developments in sport and physical activity since prehistoric time; emphasis on events influencing contemporary American programs and the International Olympic Games. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### **KIN 350. Sociological Aspects of Sport and Physical Activity.**

Restricted to students in the Bachelor of Science in Kinesiology and Health with a major in physical culture and sports or sport management. Three lecture hours a week for one semester. Kinesiology 350 and 352K

(Topic: Sociological Aspects of Sport and Physical Activity) may not both be counted.

### **KIN 351. Philosophy of Sport and Physical Activity.**

Designed for kinesiology and health education majors. Introduction to the ideas and methodologies of the philosophic exploration of play, sport, athletics, exercise, and the body. Emphasis on the study of sport and ethics. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **KIN 352K. Studies in Human Movement: Topical Studies.**

Analysis and synthesis of the literature and discussion of current and specific issues in kinesiology. Three lecture hours a week for one semester. Laboratory work is required for some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 3: Women and Sport.** Same as Women's and Gender Studies 345 (Topic 5: Women and Sport).

**Topic 5: Sport, Fitness, and Mass Media.**

**Topic 6: Race and Sport in African American Life.** Only one of the following may be counted: African and African Diaspora Studies 372E (Topic 19), 374 (Topic 27), Anthropology 324L (Topic 26), Kinesiology 352K (Topic 6) Additional prerequisite: Upper-division standing.

**Topic 18: Physiology of Brain Injury.** Examines the physiology of healthy brain and neural function and the pathophysiology associated with brain injury and the subsequent detection, diagnosis, treatment, short and long term consequences, and strategies to protect from and prevent brain injury. Additional prerequisite: Upper-division standing, Kinesiology 324K, and 325K.

**Topic 28: Musculoskeletal Functional Anatomy.** Analysis and synthesis of the literature and discussion of current and specific issues in kinesiology. Kinesiology 352K (Topic 28) and 352K (Topic: MUSCULOSKLTL FUNCTNL ANTMY) may not both be counted. Additional prerequisite: Kinesiology 424K and consent of department.

**Topic 29: Research Methods in Exercise Science.** Explore the necessary knowledge, skills and tools to evaluate and conduct research in exercise science. Engage in every part of the research process, from defining a specific research question, designing the experimental protocol and performing data collection to presenting results and conclusions in a poster presentation. Three lecture hours a week for one semester. Kinesiology 352K (Topic: Research Methods in Exer Sci) and 352K (Topic 29) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing.

**Topic 30: Sport Pedagogy.** Kinesiology 352K (Topic: Sport Pedagogy) and 352K (Topic 30) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 31: Sport, Society, and the International Olympic Movement.** Kinesiology 352K (Topic: Spt, Soc, Intl Olympic Mt) and 352K (Topic 31) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 32: History of Physical Culture.** Survey the history of major trends and movements in physical culture, including fitness and exercise, strength sports, body cultures, and alternative health. Additional prerequisite: Upper-division standing.

**Topic 33: Nutrition: Exercise, Health, and Sport.** Explore general nutrition concepts including basic definitions and how nutrition affects health. Examine the current nutrition recommendations at various ages. Kinesiology 352K (Topic: Ntr. Exercise/Health/Sport) and 352K (Topic 33) may not both be counted.

### **KIN 353. Sport Law.**

Designed for sport management majors. Introduction to the United States legal system and to the major cases, laws, and regulations

that together make up "sports law." Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **KIN 354. Sport and Event Marketing.**

Restricted to sport management majors. Application of the fundamental principles used in the marketing of sport and events. An introduction to service quality for increasing customer satisfaction and effectiveness of sport organizations. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **KIN 355. Media and Public Relations in Sport.**

Designed for sport management majors. Examination and application of the concepts of public and media relations to sport and leisure organizations. Subjects include effective interpersonal communication, persuasion, media relations, publicity tactics, social and new media, and writing and oral communications skills. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **KIN 356. Revenue and Budgeting in Sport.**

Restricted to students in the Bachelor of Science in Kinesiology and Health with a major in sport management. Introduction to financial analysis and budgeting techniques in the context of sport organizations; conventional and innovative methods for the acquisition of revenue available to sport organizations. Three lecture hours a week for one semester.

### **KIN 357. Strategic Management of Sport Organizations.**

Designed for sports management majors. Examines the strategic development of sport and health promotion programs. Focus on strategy development within organizations, which includes complementary course material deriving from various sub-disciplines related to strategic thinking and decision-making. Two lecture hours and one discussion hour a week for one semester. Prerequisite: Upper-division standing; Kinesiology 354; and Kinesiology 356 or three hours of Accounting or three hours of Finance coursework.

### **KIN 360. Programming for People with Disabilities.**

Covers early detection of disabilities in children, assessment, recommendations for educational settings, and writing an Individualized Education Program. Reviews real-life scenarios featuring individuals with disabilities in active settings. Covers skills useful for a career in a school environment, public policy, and recreation. Three lecture hours a week and twelve service learning hours arranged with instructor for one semester. Prerequisite: Six semester hours of coursework in kinesiology, or consent of instructor.

### **KIN 361. Coaching Theory and Principles I.**

Examines the philosophy, ethics, strategies, motivational techniques, performance analysis, program organization, contest administration, and facilities management related to coaching. Three lecture hours a week for one semester. Prerequisite: Kinesiology 312.

### **KIN 362. Coaching Theory and Principles II.**

Examines the process of becoming a successful coach and developing a coaching protocol for a specific sport. Three lecture hours a week for one semester. Prerequisite: Kinesiology 361

### **KIN 363. Theory and Practice in Strength Coaching.**

Covers the physiology and biomechanics of strength training and conditioning, as well as popular assessment protocols and exercise prescription principles. Covers management of a strength/conditioning facility, including organization and administration, staff utilization, integration of weight training with other training techniques, and

standard strength coaching practices. Three lecture hours a week for one semester. Prerequisite: Kinesiology 310 or 424K.

### **KIN 364. Aquatic Facility Operator: Management and Administration.**

Designed to prepare the aquatic professional for leadership in the management of indoor and outdoor facilities. Includes aquatic facility operation, administration of programs, physical operations, policies and procedures, and staff development and training. Includes design, pool operation, water chemistry, facility management, safety procedures and risk management, budgeting, and marketing aquatic programs. Studies educational, sport, and recreational aspects of pools, lakes, camps, and beachfronts. Three lecture hours a week for one semester.

### **KIN 365. The Business of Golf.**

Restricted to students in the College of Education. Designed for students pursuing a career in the golf business. Includes clubhouse and links management, sales, agronomy, technology, and equipment. Three lecture hours a week for one semester.

### **KIN 366R. Adapted Fitness and Recreation.**

Investigate fitness and recreation as integral components of optimal health and well-being for individuals with illnesses and disabling conditions. Explore the benefits of exercise for people with disabilities and the preparation necessary to clear the pathways for individuals to successfully pursue a lifetime of fitness and recreation. Three lecture hours a week for one semester. Kinesiology 352K (Topic: Adapted Fitness/Recreation) and 366R may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **KIN 367S. Sport and Disability.**

Delve into a comprehensive look at the history of disability sport and current elite and Paralympic athletes. Explore disability sport in its historical context; organizations, competitions, and sport opportunities for athletes with disabilities; international perspectives; and coaching and training of athletes with disabilities, including sports medicine issues, activity modifications, equipment uses, and event management for both adult and young athletes. Three lecture hours a week for one semester. Kinesiology 352K (Topic: Sport and Disability) and 367S may not both be counted. Offered on the letter-grade basis only.

### **KIN 368T. Perspectives in Assistive Devices, Products and Technology.**

Participate in a multidisciplinary collaborative approach in the development of devices and products to assist people with disabilities in recreational and daily life pursuits. Join a team of medical and engineering students in prototyping technologies, and be guided through early insight marketing research, and development strategies. Engage with leaders in successful business ventures and learn from experts in technology, medicine and product development. Present concluding projects to a panel of mentors in the fields of research, marketing, development and patenting. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **KIN 370K. Topical Seminar in Health Promotion.**

Identification, causes, incidence, prevention, control, and social implications of major problems in health. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Emergency Medical Technology.**

### **KIN 375. Issues and Trends in Developmental Movement Programs.**

Introduction to issues related to the goals, organization, and success of developmental movement programs, such as school physical education, youth sports, YMCA, and other recreation programs and community activities. Issues include equity, competition, fitness, social development, safety and liability, and sportsmanship. Involves group work and observation and involvement in community programs. Two lecture hours and three laboratory hours a week for one semester.

### **KIN 376. Measurement in Kinesiology.**

Measurement and assessment procedures; application of statistical procedures; standards for authentic assessment; measurement/assessment selection and evaluation; use of technology in tracking development of motor skills and fitness. Three lecture hours a week for one semester. Prerequisite: Six semester hours of upper-division coursework in kinesiology.

### **KIN 178, 278, 378, 678. Fieldwork in Health.**

Undergraduate research and/or experience with a health agency in the field attempting to analyze or solve community health problems through education; supervision by the health agency and by the kinesiology and health education faculty. For each semester hour of credit earned, two laboratory hours a week for one semester. Some topics are offered on the pass/fail basis only; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

**Topic 1: Substance Abuse Prevention I.**

**Topic 2: Substance Abuse Prevention II.**

**Topic 3: Sexual Health I.**

**Topic 4: Substance Abuse Prevention III.**

### **KIN 379H. Honors Tutorial Course.**

Readings or a research project, under the supervision of a faculty member, in specific areas of research within kinesiology. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: A University grade point average of at least 3.00 and consent of instructor.

## **Graduate Courses**

### **KIN 382. Conference-Laboratory.**

Laboratory or workshop-type instruction dealing with selected problems in specialization areas of kinesiology. Conference course. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Laboratory Techniques in Exercise Physiology.** The theory and practice of modern laboratory and field techniques used to evaluate human physical performance and physiological function. Prerequisite: Kinesiology 325K, or consent of instructor.

**Topic 4: Biomechanics Laboratory.** Prerequisite: Kinesiology 395 (Topic 36: Biomechanics of Human Movement), two semesters of calculus, and one semester of college physics (mechanics); or consent of instructor.

**Topic 6: Advanced Laboratory Techniques in Exercise Physiology.** Knowledge and skills needed to assess the metabolic characteristics of the rat, to evaluate the metabolic characteristics of skeletal muscle, and to perform essential biochemical assays and procedures that are typically used in biochemical and molecular biology experiments. Prerequisite: Consent of instructor.

**Topic 7: Clinical Exercise Physiology: Theory and Practice.** Designed for students interested in assessing physical fitness and well-being and designing exercise programs in corporate, community, clinical, occupational, and commercial settings. Students receive practical

experience assessing physical fitness. Prerequisite: Kinesiology 325K or the equivalent.

**Topic 9: Motor Development: Assessment.** Review of screening, diagnostic, or programmatic motor assessment instruments. Includes test psychometrics, test content, appropriate population, and comparable or competing assessments. Prerequisite: Kinesiology 321M or the equivalent, Kinesiology 395 (Topic 45: Seminar in Motor Development), or consent of instructor.

**Topic 10: Pedagogical Technology.** Analysis and application of fundamental and advanced technologies in physical activity settings. Prerequisite: Graduate standing, or consent of instructor.

### **KIN 386. Research Methodologies.**

Disciplines of research methods, research design, data-producing techniques, treatment and interpretation of data, reporting on research. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Research Methods: Proposal Writing.** Required of all candidates for the master's degree in kinesiology with thesis or report. Additional prerequisite: Educational Psychology 371 or an equivalent introductory statistics course with a grade of at least C.

**Topic 2: Research Methods: Applied Research Techniques.**

**Topic 3: Qualitative Research Methods PCSS.** Introduction to the theoretical and methodological aspects of qualitative research, as well as qualitative research approaches from a variety of disciplines and philosophical traditions with an emphasis on the application of research designs, data collection, and analysis techniques for researchers of sport, physical culture, exercise, and physical activity. Recommended for students specializing in sport management or interdisciplinary sport studies. Kinesiology 386 (Topic: Qualitative Research Methods PCSS) and Kinesiology 386 (Topic 3) may not both be counted.

**Topic 4: Research Methods: Grant Writing.** Restricted to students in the Department of Kinesiology and Health Education. Disciplines of research methods, research design, data-producing techniques, treatment and interpretation of data, and reporting on research. Recommended for doctoral students interested in pursuing a post-doctoral experience. Kinesiology 386 (Topic: Research Methods: Grant Writing) and Kinesiology 386 (Topic 4) may not both be counted.

**Topic 5: Archival Research Methods in Physical Culture and Sport History.** Selected research methods and techniques used in archival research at the theoretical and pragmatic level. Familiarizes students with research methods for both paper-based and digital archives.

### **KIN 395. Advanced Topical Studies.**

Graduate seminar in topics related to specialization areas. Three lecture hours a week for one semester. Additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Ergogenic Aids for Exercise.** Additional prerequisite: Kinesiology 325K or consent of instructor.

**Topic 2: Cardiac Metabolism.** Additional prerequisite: Kinesiology 395 (Topic 46), and Chemistry 339 or consent of instructor.

**Topic 3: Physiology of Aging.** Additional prerequisite: Kinesiology 395 (Topic 46).

**Topic 4: Biomechanics of Sport.** Additional prerequisite: Kinesiology 324K and 326K, or consent of instructor.

**Topic 5: Exercise and Preventive Medicine.** Additional prerequisite: Kinesiology 325K.

**Topic 8: Motor Control: Neuromuscular Bases.** Additional prerequisite: Kinesiology 336 or consent of instructor.

**Topic 9: Motor Control: Performance and Learning.** Additional prerequisite: Kinesiology 315 or consent of instructor.

**Topic 10: Neural Control of Posture and Locomotion.** Additional prerequisite: Kinesiology 336 or consent of instructor.

**Topic 11: Pulmonary Exercise Physiology.** Restricted to graduate students in exercise physiology. Examine the interactions between the cardiovascular and pulmonary systems at rest and during exercise. Explore the adaptation of the cardiopulmonary system to exercise training, and the current research being performed in the field of cardiopulmonary exercise physiology. Three lecture hours a week for one semester. Kinesiology 395 (Topic: Pulmonary Physiology) and 395 (Topic 11) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Kinesiology 395 (Topic 16).

**Topic 12: Muscle Physiology and Plasticity.** Additional prerequisite: Kinesiology 395 (Topic 46) or consent of instructor.

**Topic 13: Aging Motor Systems.**

**Topic 15: Conditioning for Competitive Athletes.** The physiological factors that govern the adaptations derived from acute and chronic exercise training. Focus will be placed on training adaptation in competitive athletes as they represent the extreme. Additional prerequisite: Kinesiology 325K or consent of instructor.

**Topic 16: Cardiovascular Response to Exercise.** Additional prerequisite: Kinesiology 325K or consent of instructor.

**Topic 18: Fitness Testing and Evaluation.**

**Topic 21: Children's Exercise and Activity.** Physiological bases for changes in exercise and sports performance and in exercise capacity throughout childhood and adolescence. Includes aspects of cardiovascular, respiratory, and metabolic changes and issues related to thermoregulation, training, gender, and health and fitness. Additional prerequisite: Kinesiology 321M and 325K, or consent of instructor.

**Topic 23: Critical Issues and Events in American Sport.**

**Topic 25: Fat Metabolism during Exercise.** Additional prerequisite: Kinesiology 395 (Topic 46), or 325K and consent of instructor.

**Topic 26: Legal Issues in Sport.**

**Topic 27: Athletics Administration.**

**Topic 28: Physical Dimensions of Aging.**

**Topic 29: Ethics in Sport.**

**Topic 32: Sport Marketing.** Additional prerequisite: An introductory undergraduate or graduate survey course in marketing.

**Topic 33: Musculoskeletal Biomechanics.** Synthesis of properties of the musculotendon and skeletal systems to construct detailed computer models that quantify human performance and muscular coordination. Prerequisite: For kinesiology majors, Mathematics 341, Kinesiology 395 (Topic 36), and consent of instructor.

**Topic 36: Biomechanics of Human Movement.** Same as Biomedical Engineering 383J (Topic 4). Additional prerequisite: Kinesiology 326K, two semesters of calculus, one semester of college physics (mechanics), and consent of instructor.

**Topic 38: Muscle Metabolism during Exercise.**

**Topic 42: Facility and Event Management.** Management and operation of sport, recreation, convocation, convention, and other public assembly facilities.

**Topic 43: Psychology of Exercise.** The benefits of exercise in moderating negative psychological states such as anxiety, stress reactivity, and depression. Additional prerequisite: Kinesiology 325K.

**Topic 44: Sport Finance.** Designed to reinforce students' understanding of finance and its role in sport and health promotion programs, and to provide students with the knowledge and skills needed in the administration of sport and health promotion programs.

**Topic 45: Pediatric Motor Development.** Additional prerequisite: Kinesiology 321M, or consent of instructor.

**Topic 46: Advanced Exercise Physiology I.** Designed to provide students with the essential graduate background for the application and practice of exercise physiology. The integration of the nervous, skeletal muscle, and cardiovascular systems from the subcellular level to the whole-organism level. Additional prerequisite: Kinesiology 325K.

**Topic 47: Advanced Exercise Physiology II.** The physiological and metabolic response to exercise, with emphasis on integrating the whole-body and cellular responses. In a variety of topics, students review basic physiology, focus on responses during exercise, and apply their findings to situations in the clinical and sporting environments. Additional prerequisite: Kinesiology 395 (Topic 46).

**Topic 48: Social Psychology of Sport and Physical Activity.** The theoretical structure that underlies social psychology as it has been applied to sport. Emphasis on the psychological concerns that confront coaches in their interactions with individual athletes and teams. Additional prerequisite: Kinesiology 311K or consent of instructor.

**Topic 49: Sports Nutrition.** The nutritional needs of people whose physical activity ranges from recreational to elite competitive athletics. Development of practical dietary strategies that recognize the unique nature of sport and the role of diet in promoting optimal physiological adaptation to training. Three lecture hours and one and one-half discussion hours a week for one semester. Additional prerequisite: Kinesiology 325K or consent of instructor.

**Topic 50: Sport Psychology.** The general field of experimental sport psychology, with emphasis on the psychological components of individual performance. Designed to prepare students to discuss the important questions, methodology, and experimental literature in selected areas of sport psychology. Additional prerequisite: Kinesiology 311K or consent of instructor.

**Topic 51: Adult Development, Aging, and Health.**

**Topic 52: Organizational Behavior in Sport.** Determinants and consequences of individual motivation and attitudes in organizations generally and in sport organizations specifically. Theory related to the individual often responsible for motivating people toward organizational goals, the leader. Additional prerequisite: For students in the College of Education, Management 320F or the equivalent; for others, Management 320F or the equivalent, and consent of instructor.

**Topic 53: Sport Public Relations and Sales.** Detailed study of the relationship between the media, corporate sponsorship, and sport. Focus on various media techniques utilized by sport managers and sport sponsorship basics. Additional prerequisite: Kinesiology 395 (Topic 32) or the equivalent or consent of instructor.

**Topic 54: The Biology of Aging.**

**Topic 55: Assessment of Physical Function in Older Adults.** Introduction to the goals, issues, and procedures that relate to the clinical assessment of physical function in the elderly (sixty-five and older).

**Topic 56: Sport and Special Event Management.** Introduction to key considerations when planning, implementing, and evaluating an event. Considers the organization of the events industry worldwide and examines how events link to other sectors of the economy. Specialized skills for the management and marketing of events. Students have the opportunity for hands-on practice in the use of the necessary tools for planning, programming, administering, and evaluating an event.

**Topic 57: Managing People and Organizations.** Graduate-level preparation in select subjects in organizational behavior and human resources management. Additional prerequisite: Previous coursework in foundations of organizational behavior and administration.

**Topic 58: Sport Consumer Behavior.** An examination of contemporary theory and research on the subject of sport consumer behavior.

**Topic 59: Biomechanics in Clinical Settings.** Designed to provide students with the basic biomechanical competence required to understand how normal human movements are generated, how movements are altered by injury or pathology, and how clinical intervention can improve performance. Additional prerequisite: Kinesiology 324K and 326K, or the equivalent.

**Topic 60: Sport Policy.** The formulation and analysis of sport policies: the uses of policy analysis in sport settings; environmental, economic, and sociopolitical impacts of sport, including policy implications.

**Topic 61: Central Questions in Biomechanics and Motor Control.** Designed to allow students to explore specific topics of current interest in biomechanics and/or motor control; to learn to evaluate the scientific literature in areas of current debate or controversy; and to develop scientifically sound, relevant, and experimentally testable research hypotheses. Additional prerequisite: Kinesiology 382 (Topic 4: Biomechanics Laboratory), and Kinesiology 395 (Topic 36) or written consent of instructor.

**Topic 62: Aging and Cardiovascular Function and Disease Risks.** Cardiovascular changes associated with aging; scientific issues and hypotheses in the area of aging and cardiovascular function and disease risks; and presenting critical analyses of these issues. Additional prerequisite: An upper-division course in human or vertebrate physiology.

**Topic 63: Introduction to Nonlinear Dynamics in Biological Systems.** Same as Biomedical Engineering 383J (Topic 5). Basic concepts of nonlinear mathematics and their application to biological systems. Additional prerequisite: Two semesters of college-level calculus and consent of instructor.

**Topic 64: Neuromuscular Aspects of Fatigue and Training.** The role of the central nervous system during muscular fatigue and exercise training. Additional prerequisite: Consent of instructor.

**Topic 65: Sport Development.**

**Topic 66: Marketing Research for Sport.**

**Topic 67: Theories and Issues in Sport Management.**

**Topic 68: Human Resource Management in Sport Organizations.**

**Topic 69: Physical Activity Assessment in Individuals and Populations.** Provides an understanding of the various methods used to measure physical activity and related constructs (such as sedentary behavior, movement, and physiological attributes), and the mechanisms by which physical activity influences health outcomes. Covers all forms of physical activity measurement, assessment of built environment, and psychosocial correlates of physical activity, as well as validity, reliability, and related statistical strategies.

**Topic 70: Human Cardiovascular and Autonomic Physiology.** Introduction to the regulation of the cardiovascular and autonomic nervous system in health and disease.

**Topic 71: Cognition and Exercise Across the Lifespan.** Detailed study of the relationship between brain health and physical activity behaviors across the developmental life stages; focused on the effects of physical activity programming on cognitive control and performance. Kinesiology 395 (Topic: Cognition and Exercise Across the Lifespan) and 395 (Topic 71: Cognition and Exercise Across the Lifespan) may not both be counted.

**Topic 72: History of Strength and Strength Training.** Explore the history of the physiological understanding of human strength, training methodologies to promote strength, the evolution of the profession of strength coaching, gendered-attitudes toward the possession of physical strength, and the rise of competitive strength sports. Using a cultural studies approach, consider ideas about strength (and muscularity) from Ancient Greece and Rome. Examine the rise of circus strongmen and strongwomen, the professional physical education community's shunning of "strength" as a desirable physiological goal, and the rise of non-professional entrepreneurs like Bob Hoffman, Joe Weider, and Arthur Jones who helped debunk the myth of muscle binding.

**Topic 73: History of Sport and Business.** Survey of the development of modern sport industry from late nineteenth-century roots to twenty-first century global phenomenon. Examines connections between media and sport; the role of IMG and other sport agencies in event sponsorship and creation of celebrity athletes; growth of professionalism in the Olympic movement; the rise of

megacorporations; and the commercialization of college and high school athletics.

**Topic 74: History of Physical Culture and Alternative Medicine.**

Examines the history of the various practices used to strengthen, enhance, and improve the health of the body through exercise, dietary manipulation, and other holistic practices. Kinesiology 395 (Topic: History of Physical Culture and Alternative Medicine) and Kinesiology 395 (Topic 74) may not both be counted.

**Topic 75: Sport and International Relations.** Examines the relationship between sport and international relations.

**Topic 76: History of Exercise Science and Sports Medicine.** Traces the evolution of exercise science and sports medicine from Classical Greece to the present.

**Topic 77: Strategic Management in Sport.** Graduate level preparation in developing and analyzing organizational strategies. Preparation for consultancy work as well as composing and analyzing business plans.

**Topic 78: History of Sports Nutrition.** Explore the many ways in which nutritional science, diet, and folk remedies came to be popularized among athletes, and what the ramifications of these developments were. Examine the relationship between exercise and diet in the early nineteenth century, with attention paid to British and American culture. Discuss the emergence of new dietary practices for athletes throughout time, ranging from vegetarian diets to high protein meals. Identify methods and theories found in histories of gender, sport, health, medicine, politics, and culture among other disciplines.

**Topic 79: Race, History and the Quest for Body Perfection.** Explore issues of race, gender, and sexuality as applied to the human body through the lens of cultural history. Examine beliefs about what has been considered "beautiful," "fit," "obese," and "healthy" and bodies have been defined as "masculine," "feminine," or outside this traditional binary. Assess how the human body has been measured and critiqued by physical educators, scientists, and government agencies; how muscularity and the quest for ideal measurements has been celebrated and derided in different historical eras; how beauty and physique contests celebrate particular kinds of bodies; and how ideal bodies have been portrayed in art, photography and film.

**Topic 80: Statistical Methods in Education and Health.**

**KIN 395D. Neurological Rehabilitation.**

Explore the scope, techniques, and research findings of the field of neuromuscular and biomechanical mechanisms in neurological rehabilitation. Review basic neuromuscular and biomechanical concepts and principles, and study recent efforts to apply them to selected clinical situations. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate advisor.

**KIN 196, 396. Doctoral Seminar.**

Individual or shared project research with reports evaluated by seminar participants and the instructor. The equivalent of one or three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent form.

**KIN 296T, 396T. Directed Research.**

Investigation of assigned problems under direction of a Graduate Studies Committee member; development and demonstration of competence in research design and execution; production of an acceptably written research report. Conference course. May be repeated for credit. Prerequisite: Graduate standing and written consent form.

**KIN 197, 397. Research Problems.**

Individual or group research topics in a specialization area of kinesiology. One or three conference or lecture hours a week for one semester. May

be repeated for credit. Prerequisite: Graduate standing and written consent form.

**KIN 197C, 397C. Movement and Cognitive Rehabilitation Science Seminar.**

Participate in facilitated research and professional development. Share work with peers and faculty and receive friendly and constructive feedback. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

**KIN 197P, 397P, 697P. Graduate Internship.**

Supervised practice in a professional organization, business, or institution. The equivalent of three, nine, or eighteen laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, a University grade point average of at least 3.00 and a grade point average in the major department of at least 3.00, and written consent form.

**KIN 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in kinesiology and written consent of the graduate adviser; for 698B, Kinesiology 698A and written consent of the graduate adviser.

**KIN 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in kinesiology and written consent of the graduate adviser.

**KIN 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree .

## Professional Courses

## Korean Courses

### Korean: KOR

#### Lower-Division Courses

**KOR 604. Accelerated First-Year Korean.**

Designed for students who understand or speak but do not read or write Korean. Not open to native speakers of Korean. Six class hours a week for one semester. Korean 604 and 506 may not both be counted; Korean 604 and 507 may not both be counted.

**KOR 506, 606. First-Year Korean I.**

Intended for non-native speakers of Korean. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Korean 604 and 506, 606 may not both be counted.

**KOR 507, 607. First-Year Korean II.**

Continuation of Korean 506, 606. Intended for non-native speakers of Korean. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Korean 604 and 507, 607 may not both be counted. Prerequisite: Korean 506, 606 with a grade of at least C.

**KOR 612. Accelerated Second-Year Korean.**

Not open to native speakers of Korean. Continuation of Korean 604. Six class hours a week for one semester. Korean 612 and 412K may not both

be counted; Korean 612 and 412L may not both be counted. Prerequisite: Korean 604 with a grade of at least C.

### **KOR 312K, 412K. Second-Year Korean I.**

Intended for non-native speakers of Korean. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Korean 612 and 312K, 412K may not both be counted. Prerequisite: Korean 507, 607 with a grade of at least C.

### **KOR 312L, 412L. Second-Year Korean II.**

Intended for non-native speakers of Korean. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Korean 612 and 312L, 412L may not both be counted. Prerequisite: Korean 312K, 412K with a grade of at least C.

### **KOR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Korean.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **KOR 320K. Third-Year Korean I.**

Three lecture hours a week for one semester. Prerequisite: Korean 612 or 412L with a grade of at least C.

### **KOR 320L. Third-Year Korean II.**

Three lecture hours a week for one semester. Prerequisite: Korean 320K with a grade of at least C.

### **KOR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Korean.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **KOR 330. Topics in Advanced Korean.**

Fourth-year Korean readings on special topics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Korean 320L with a grade of at least C.

**Topic 1: Advanced Conversation in Korean.** Emphasis on achieving an advanced level of proficiency in modern conversational Korean, with additional practice in advanced writing and listening skills. Korean 330 (Topic: Advanced Conversation) and 330 (Topic 1) may not both be counted.

**Topic 2: Advanced Readings in Korean I.** Selected modern Korean poems, short stories, and essays to develop reading and writing skills in advanced Korean. Includes discussion of cultural and historical issues. Korean 330 (Topic: Readings in Advanced Korean I) and 330 (Topic 2) may not both be counted.

### **KOR 330F. Korean Conversation through Media.**

Develop conversational skills in Korean language through the analysis of authentic Korean media resources such as newspapers, the Internet, TV news, and audio files. Focus on the comprehension, analysis, translation, and critique of media texts, as well as some formal speaking. Three

lecture hours a week for one semester. Only one of the following may be counted: Korean 330 (Topic: Korean Conv through Media I), 330 (Topic: Korean Conv thru Media II), 330F. Prerequisite: Korean 320L with a grade of at least C.

### **KOR 360. Conference Course in Korean Language and Literature.**

Supervised individual study of selected problems in Korean language or literature. The equivalent of three lecture hours a week for one semester. Conference course. May be repeated for credit. Prerequisite: Korean 312L or 412L and written consent of instructor on form obtained from the undergraduate adviser.

## **Graduate Courses**

### **KOR 381. Conference Course in Korean Language and Culture.**

Supervised individual study in Korean language or culture. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, six semester hours of upper-division coursework in Korean, and written consent of instructor on a form obtained from the graduate coordinator.

### **KOR 384. Topics in Korean Language and Culture.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and six semester hours of upper-division coursework in Korean or consent of instructor; additional prerequisites vary with the topic.

## **Professional Courses**

# **Landscape Architecture Courses**

## **Landscape Architecture: LAR**

### **Lower-Division Courses**

#### **LAR 312R. Topics in Introductory Landscape Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **LAR 341R. Topics in Visual Communication.**

Explore advanced topics in media and interpretation, such as freehand drawing, measured drawings, aspects of computer graphics, geographic information systems, and photography. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing or consent of instructor.

**Topic 1: Rendering and Animation for the Built Environment.** Same as Architecture 328Q. Digital visualization techniques used to model three dimensional environments and motion with digital media. Includes lectures, software demonstrations, and projects that focus on the digital translation of spatial experience, as well as the visualization techniques associated with rendering texture, character, and environment. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 328Q, 328V, 351R (Topic: Visualization and Digital Representation in Design), Landscape Architecture 341R (Topic 1). Additional prerequisite: For students in the School of Architecture: upper-division standing and Architecture 521E with a grade of at least C, or consent of instructor; for others, upper-division standing or consent of instructor.

#### **LAR 342K. History and Theories of Landscape Architecture I.**

Same as Architecture 342E. Overview and chronological series of in-depth studies in the history of major garden cultures and

designed landscapes of the Western and Eastern worlds. Introduction to methodological approaches to the formal, social, and cultural history of gardens and landscapes, as well as to relevant theoretical frameworks for interpreting these designed landscapes and for use in conceptualizing landscapes, architecture, and urban projects in studio design. Three lecture hours a week for one semester. Only one of the following may be counted: Landscape Architecture 342K, Architecture 342E, 368R (Topic: History and Theories of Landscape Architecture I) Prerequisite: Upper-division standing; for students in the School of Architecture, Architecture 318L with a grade of at least C; for others, consent of instructor.

#### **LAR 342L. History and Theories of Landscape Architecture II.**

Same as Architecture 342F. Continuation of Landscape Architecture 342K (and Architecture 342D) through the modern period to contemporary times. Formal and cultural history of gardens, parks, and public landscapes from 1700 to about 1990. Includes comparative material from the contemporary period, 1980 to 2010. Three lecture hours a week for one semester. Only one of the following may be counted: Landscape Architecture 342L; Architecture 342F or 368R (Topic: History and Theories of Landscape Architecture II). Prerequisite: Upper-division standing; for students in the School of Architecture, Architecture 318L with a grade of at least C; for others, consent of instructor.

#### **LAR 342R. Topics in Landscape Architectural History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Romes Gardens and Landscapes.** Same as Architecture 342R (Topic 12). Only one of the following may be counted: Landscape Architecture 342R (Topic 1); Architecture 342R (Topic 12), 368R (Topic: Italian Villa and Garden)

**Topic 2: Professional Design Practice: Baroque Rome.** Same as Architecture 342R (Topic 14). Explore an overview of the synthetic act of design and a strong interdisciplinary grounding in one of the key historical periods of design and in advanced research methods. Only one of the following may be counted: Landscape Architecture 342R (Topic 2), Architecture 342R (Topic 14) or Architecture 368R (Topic: Prof Dsgn Prac: Baroq Rome).

**Topic 3: Representing Landscape and Architecture, 1500-2015.** Same as Architecture 342K. Explores the roles of visual representation in design and professional practice from Leonardo da Vinci to the digital age. An overview of the history of techniques, media, and conventions of representation in architecture and landscape architecture and in their intersections. Includes some drawing and painting. Three lecture hours a week for one semester. Only one of the following may be counted: Landscape Architecture 342R (Topic 3); Architecture 342K, 368R (Topic: Representing Landscape and Architecture, 1500-2015). Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing; for students in the School of Architecture, Architecture 318L with a grade of at least C; for others, consent of instructor.

#### **LAR 345R. Topics in Landscape Technology and Site Engineering.**

Explore current techniques and issues related to landscape technology and their influence and application in the built environment. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

#### **LAR 346R. Topics in Landscape Architectural Theory.**

Explore advanced topics in landscape architecture and associated disciplines to encourage critical and theoretical thinking. Three lecture

hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

#### **LAR 347K. Living Systems Design I.**

Examine the interconnections between geological, biological, and social systems of the designed landscape. Explore subjects such as plant ecology, plant communities, soils, and plant identification. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

#### **LAR 347L. Living Systems Design II.**

Examine the design of living systems for the urban environment including soils, paving, plants and best management practices. Explore subjects such as principles and processes of planting design, ecosystems service optimization, and landscapes on structure. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

#### **LAR 347M. Living Systems Design III.**

Examine emerging issues and contemporary debates related to the design and construction of living systems in the urban environment, including technical, ecological, and aesthetic considerations. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

#### **LAR 347R. Topics in Natural Systems.**

Explore aspects of environmental analysis, ecological and systemic methods, landscape resilience, and applied methods particular to design of the built environment. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### **Graduate Courses**

#### **LAR 380C. Foundation Design Studio.**

An introduction to the fundamental components of landscape architecture and graphic communication. Students are introduced to basic drawing and representational skills. Twelve laboratory hours a week for one semester. Landscape Architecture 380 and 380C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **LAR 180V, 380V. Topics in Digital Technology and Fabrication.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate Standing.

#### **LAR 180W, 380W. Topics in Disaster Recovery.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate Standing.

#### **LAR 381. Visual Communication I.**

An introduction to the study and application of graphic, representational, and communication skills. Twelve laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and concurrent enrollment in Landscape Architecture 383 and Landscape Architecture 388K.

#### **LAR 381D. Architectural Drawing.**

Visual communication in such media as freehand drawing, modeling, photography, and measured drawings. Five laboratory hours a week for one semester. Only one of the following may be counted: Architecture 386M (Topic: Architectural Drawing), Architectural Interior Design

381R (Topic: Architectural Drawing), and Landscape Architecture 381D. Prerequisite: Graduate standing and consent of the graduate adviser.

### **LAR 381R. Topics in Visual Communication.**

Advanced topics in media and interpretation, such as freehand drawing, measured drawings, aspects of computer graphics, geographic information systems, and photography. Six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **Topic 1: Rendering and Animation for the Built Environment.**

Digital visualization techniques used to model three dimensional environments and motion with digital media. Includes lectures, software demonstrations, and projects that focus on the digital translation of spatial experience, including the visualization techniques associated with rendering texture, character and environment. Six laboratory hours a week for one semester. Landscape Architecture 381R (Topic: Visualization/Digital Representation in Design) and 381R (Topic 1) may not both be counted. Additional prerequisite: Graduate standing and consent of the graduate adviser.

### **LAR 682. Design and Visual Studies in Landscape Architecture I.**

First core design studio that introduces students to the practice of landscape architectural design, representation, and theoretical practices. Fifteen laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, Landscape Architecture 380, credit or registration for Landscape Architecture 385K and 388K, and consent of the graduate adviser.

### **LAR 382R. Photography and the Urban Landscape.**

Three lecture hours a week for one semester. Landscape Architecture 381R (Topic: Photography/Urban Landscape) and 382R may not both be counted. Prerequisite: Graduate standing and consent of the graduate advisor.

### **LAR 682T. Landscape Architecture Design Studio II.**

Second core design studio that examines the issues, methods, and theories studied in Landscape Architecture 682 with increasing levels of complexity. Fifteen laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Landscape Architecture 383, 385K, 387K, and 388K with a grade of at least C; and consent of the graduate adviser.

### **LAR 383. Landscape Architecture Design Studio I.**

Methods of survey, recording, interpretation, and representation of landscape. An introduction to design through examination of object, space, relationship, movement, the human condition, materiality, and ecology. Twelve laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, concurrent enrollment in Landscape Architecture 381 and 388K, credit or registration for Landscape Architecture 385K, and consent of graduate advisor.

### **LAR 384. Topics in Horticulture and Plants in Design.**

Study of habitat, site and technical conditions, and characteristics of plant typologies and their application to landscape practice. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **LAR 385. Topics in Natural Systems.**

Elective seminars in aspects of environmental analysis, ecological and systemic approaches, sustainable development, and applied methods of geographic information systems. Three lecture hours a week for one

semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **LAR 385K. Technology Workshop I.**

Introduces the principles, processes, and practices of site manipulation, description, and construction techniques. Includes systems of measurement, grading, earthwork, site circulation, and site drainage, and examines the representation, application, and integration of site-related operations. Two lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **LAR 385L. Technology Workshop II.**

Materials and methods of landscape construction, advanced site work techniques, and theories for material selection and application within the design process. Examines the representation, application, and integration of detail and design intent. Two lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, Landscape Architecture 385K with a grade of at least C, concurrent enrollment in Landscape Architecture 695, and consent of the graduate adviser.

### **LAR 385M. Design Methods.**

Examines methods of analysis and composition for landscape architecture and urban design. Readings, lectures, and discussions are applied to on-site assignments. Subjects include spatial, social, and ecological factors and their interactions. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Landscape Architecture 383, 385K, 387K, and 388K with a grade of at least C; and consent of the graduate adviser.

### **LAR 386. Professional Practice.**

Ethical, legal, economic, and administrative processes and responsibilities of the landscape architect practitioner. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **LAR 387. Landscape Ecology.**

Introduction to foundational concepts in landscape ecology, with emphasis on structure, function, and change of ecological systems. Addresses design and planning in relation to biological and cultural resources. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **LAR 387K. Living Systems Design I.**

Examine the inter-connections between geological, biological, and social systems of the designed landscape. Cover subjects such as plant ecology, plant communities, soils, and plant identification. Four-and-one-half laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **LAR 387L. Living Systems Design II.**

Examine the design of living systems for the urban environment including soils, paving, plants and best management practices. Explore subjects such as principles and processes of planting design, ecosystems service optimization, and landscapes on structure. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, Landscape Architecture 387K, and consent of the graduate adviser.

### **LAR 387M. Living Systems Design III.**

Examine emerging issues and contemporary debates related to the design and construction of living systems in the urban environment, including technical, ecological, and aesthetic considerations. Three

lecture hours a week for one semester. Prerequisite: Graduate standing, Landscape Architecture 387L, and consent of the graduate adviser.

### **LAR 388. Topics in Landscape Architecture History and Theory.**

Seminars on advanced topics in history and theory, including analysis, readings, and critique of significant positions, practice, and discourse. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and Landscape Architecture 388L or consent of the graduate adviser.

#### **Topic 1: Design Logics: Projection and Proportion in Architecture.**

Only one of the following may be counted: Architecture 386M (Topic: DSGN LOGICS: PROJ/PROP ARCH), 388R (Topic: DSGN LOGICS: PROJ/PROP ARCH), Landscape Architecture 381R (Topic: DSGN LOGICS: PROJ/PROP ARCH), and 388 (Topic 1).

**Topic 2: Futures and Cities.** Only one of the following may be counted: Architecture 386M (Topic 29), Landscape Architecture 388 (Topic: Futures and Cities), 388 (Topic 2).

**Topic 3: Romes Gardens and Landscapes.** Only one of the following courses may be counted: Architecture 388R (Topic: Italian Villa and Garden), 388R (Topic 12), Landscape Architecture 388 (Topic: Italian Villa and Garden), 388 (Topic 3).

**Topic 4: Professional Design Practice: Baroque Rome.** Only one of the following may be counted: Architecture 388R (Topic: Prof Dsgn Prac: Baroq Rome), 388R (Topic 21), Landscape Architecture 388 (Topic: Prof Dsgn Prac: Baroq Rome), 388 (Topic 4). Additional prerequisite: Graduate Standing.

**Topic 5: Ethics of Care.**

### **LAR 388K. History and Theories of Landscape Architecture I.**

Landscape architecture in formal, social, and cultural terms in the Western and Eastern worlds. Covers the development of ideas and principles related to context, designer, and text. Three lecture hours a week for one semester. Prerequisite: Graduate standing, concurrent enrollment in Landscape Architecture 381 and 383, and consent of the graduate advisor.

### **LAR 388L. History and Theories of Landscape Architecture II.**

Landscape architecture from 1700 to the present, with a focus on design language, theoretical frameworks, and the critical components of contemporary landscape design and thought. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Landscape Architecture 388K with a grade of at least C, and consent of the graduate adviser.

### **LAR 389, 689. Research in Landscape Architecture.**

Investigation of subjects in landscape architecture selected by the student with approval of the Graduate Studies Committee. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Graduate standing, consent of the graduate adviser, cumulative GPA of 3.8, and application approval from the LAR Graduate Studies Committee.

### **LAR 694T. Landscape Architecture Design Studio III.**

Third core design studio that engages issues, theories, and methods central to the planning and design of large projects. Emphasis is given to the resolution of multiple interrelated objectives. Fifteen laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, Landscape Architecture 682T with a grade of at least C, and consent of the graduate adviser.

### **LAR 695. Landscape Architecture Design Studio IV.**

Fourth core design studio that engages theory and practice, and provides students with an opportunity to consider a landscape project from initial

research and site investigation to detailed design, implementation, and technical resolution. Fifteen laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, Landscape Architecture 694T with a grade of at least C, concurrent enrollment in Landscape Architecture 385L, successful Portfolio Review, and consent of the graduate adviser.

### **LAR 395D. Frank Lloyd Wright: Design, Method, Theory.**

Same as Architectural Interior Design 395D and Architecture 395D. Comprehensive study of Frank Lloyd Wright's life and work with emphasis on the analyses of his concepts of organic architecture, design methods, and theories. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 388R (Topic: Frank Lloyd Wright: Design, Method, Theory), 395D, Architectural Interior Design 388R (Topic: Frank Lloyd Wright: Design, Method, Theory), 395D, Landscape Architecture 388 (Topic: Frank Lloyd Wright), 395D. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **LAR 395G. The American Home: Identity, Process, and Marketing.**

Same as Architectural Interior Design 395G and Architecture 395G. An examination of how American housing is conceived, developed, and marketed, as well as relationships between home buyers and builders. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 388R (Topic: American Home), 395G, Architectural Interior Design 388R (Topic: American Home), 395G, Landscape Architecture 388 (Topic: American Home), 395G. Offered on the letter-grade basis only. Prerequisite: For students in the School of Architecture, graduate standing; for others, graduate standing and consent of instructor.

### **LAR 395J. Originality Tradition in Baroque Rome: Borromini.**

Same as Architecture 395J. Explores the synthetic act of design and notions of originality and tradition in the arts of Baroque Rome by studying Francesco Borromini and his work through the lenses of professional design practice, the arts, contemporary Galilean science, and papal society. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 388R (Topic: Professional Design Practice: Baroque Rome), 395J, Landscape Architecture 388 (Topic: Professional Design Practice: Baroque Rome), 395J. Prerequisite: For students in the School of Architecture, graduate standing; for others, graduate standing and consent of instructor.

### **LAR 395K. Representing Landscape and Architecture, 1500-2015.**

Same as Architecture 395K. Explores the roles of visual representation in design and professional practice from Leonardo da Vinci to the digital age. An overview of the history of techniques, media, and conventions of representation in architecture and landscape architecture and in their intersections. Includes some drawing and painting. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 388R (Topic: Representing Landscape and Architecture, 1500-2015), 395K, Landscape Architecture 388 (Topic: Representing Landscape and Architecture, 1500-2015), 395K. Prerequisite: For students in the School of Architecture, graduate standing; for others, graduate standing and consent of instructor.

### **LAR 696. Advanced Design.**

Elective studios offering students an opportunity to explore particular topics in landscape, often in collaboration with architecture and community and regional planning students. Fifteen laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, Landscape Architecture 695 with a grade of at least C, and consent of the graduate adviser.

### **LAR 397. Master's Design Study in Landscape Architecture-Preparation.**

Investigation of subjects in landscape architecture selected by the student in preparation for Landscape Architecture 697K. The equivalent of three lecture hours a week for one semester. Prerequisite: Graduate standing, consent of the graduate adviser, cumulative GPA of 3.8, and application approval from the LAR Graduate Studies Committee.

### **LAR 697K. Master's Design Study in Landscape Architecture.**

An independent design project in which the investigation, design process, and critical evaluation are formulated by the student. The project must have a theoretical and research base, provide a comprehensive exploration of a landscape design topic, and offer insight for the furthering of landscape studies. Eighteen laboratory hours a week for one semester. Prerequisite: Graduate standing, Landscape Architecture 696 and 397, consent of the graduate adviser, cumulative GPA of 3.8, and application approval from the LAR Graduate Studies Committee.

### **LAR 197L, 397L. Landscape Architecture Practicum.**

Restricted to students enrolled in the Master of Landscape Architecture First Professional Degree or Master of Landscape Architecture Post-Professional Degree programs. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional hours to be arranged. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

## **Professional Courses**

# **Language Teaching and Coordination Courses**

## **Language Teaching and Coordination: LTC**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **LTC 384. Technology Applications in Language Teaching.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **LTC 385. The Foreign Language Learner.**

Reviews the theoretical and empirical research conducted in the field of foreign language acquisition, focusing on the learning process and specifically on the learners themselves. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **LTC 386. Intensive Course Design and Instruction.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **LTC 388. Topics in Language Teaching and Program Coordination.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Second Language Comprehension and Processing.** Same as German 397P (Topic 1). Explore how second language (L2) learners process language and construct meaning during sentence comprehension. Consider theoretical constructs and research methods as well as the practical applications of sentence processing research. Only one of the following may be counted: German 397P

(Topic: 2nd Lang Sentence Compr/Proc), 397P (Topic 1), Language Teaching and Coordination 388 (Topics: (Topic: 2nd Lang Sentence Compr/Proc), 388 (Topic 1).

#### **LTC 389. Language and Culture Instruction: Theory and Practice.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **LTC 397P. Practicum in Language Teaching and Coordination.**

Restricted to students pursuing the graduate portfolio in language teaching and program coordination. The equivalent of three lecture hours a week for one semester. Additional hours to be arranged. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

## **Professional Courses**

# **Latin American Studies Courses**

## **Latin American Studies: LAS**

### **Lower-Division Courses**

#### **LAS 301. Key Ideas and Issues in Latin America.**

Same as History 306N (Topic 3: Key Ideas and Issues in Latin America). Broad introductory course to acquaint students with the main areas of interest in Latin American studies. Three lecture hours a week for one semester.

#### **LAS 310. General Topics in Latin American Studies.**

Topics that serve as an introduction to Latin America within the framework of different disciplines. Three lecture hours or two lecture hours and one discussion hour a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Latin American Civilization: The Colonial Experience.** Same as History 310K. A broad survey of the political, economic, social, and cultural aspects of the Latin American past, stressing both that area's achievements and its enduring problems. Only one of the following may be counted: History 310K, 346K, Latin American Studies 310 (Topic 1), 366 (Topic 2: Latin America before 1810).

**Topic 2: Latin American Civilization: The National Experience.** Same as History 310L. A broad survey of the political, social, and cultural aspects of the Latin American past. Only one of the following may be counted: History 310L, 346L, Latin American Studies 310 (Topic 2), 366 (Topic 3: Latin America since 1810).

**Topic 5: Film and History in Latin America: Colonial Period.** Same as History 310M. Introduction to selected subjects in Latin American history and culture through film, readings, documentaries, class discussion, and lectures. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Film History in Latin America: Colonial), 310M, Latin American Studies 310 (Topic: Film History in Latin America: Colonial), Latin American Studies 310 (Topic 5).

**Topic 6: Film and History in Latin America: Modern Period.** Same as History 310N. Introduction to selected subjects in Latin American history and culture through film, readings, documentaries, class discussion, and lectures. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Film History in Latin America: Modern), 310N, Latin American Studies 310 (Topic: Film History in Latin America: Modern), 310 (Topic 6).

**Topic 7: Liberation in the African Diaspora.** Same as African and African Diaspora Studies 315S. Examination of liberation and freedom struggles in the African diaspora, focusing on common intellectual, political, and social currents among the diaspora's various groups.

Course focuses on three major themes: abolitionism, Pan-Africanism and national liberation, and hip hop. Particular emphasis will be on the ideas associated with these movements, and the major organizations and intellectual currents in all three. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315S, 317E (Topic 3), Latin American Studies 310 (Topic 7).

### **LAS 310C. Afro-Brazilian Diaspora.**

Same as African and African Diaspora Studies 315 and Comparative Literature 305D. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315, 317E (Topic: Afro-Brazilian Diaspora), Comparative Literature 305 (Topic: Afro-Brazilian Diaspora), 305D, Latin American Studies 310 (Topic: Afro-Brazilian Diaspora), 310C.

### **LAS 310F. Race, Deportation, and Diaspora.**

Same as African and African Diaspora Studies 316D, American Studies 315R, and Asian American Studies 316D. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 310 (Topic: Race, Deportation, Diaspora), 316D, 317D (Topic: Race, Deportation, Diaspora), American Studies 315 (Topic: Race, Deportation, Diaspora), 315R, Asian American Studies 310 (Topic: Race, Deportation, Diaspora), 316D, Latin American Studies 310 (Topic: Race, Deportation, Diaspora), 310F.

### **LAS 310R. Latin America and the United States.**

Same as History 310R. An exploration of the different social, economic, political, and cultural structures and concerns that came to both divide and unite the western hemisphere (North, Central, and South America, as well as the Caribbean) following independence from Europe. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Latin America and the US), 310R, Latin American Studies 310 (Topic: Latin America and the US), 310R.

### **LAS 315. Introductory Topics in Latin American Social Sciences.**

Three lecture hours or two lecture hours and one discussion hour a week for one semester. Latin American Studies 310 and 315 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Anthropology of Latin America.** Same as Anthropology 310L (Topic 3). Provides a framework for understanding contemporary concerns in Latin America. Only one of the following may be counted: Anthropology 310L (Topic 3), Latin American Studies 315 (Topic 1).

**Topic 2: Introduction to Mesoamerican Archaeology.** Same as Anthropology 314C. Introduction to ancient Mesoamerica from the time of emerging social inequality in the formative period until the Spanish conquest of Mexico-Tenochtitlan in the sixteenth century. Only one of the following may be counted: Anthropology 310L (Topic 1: Introduction to Mesoamerican Archaeology), 314C, Latin American Studies 310 (Topic 3: Introduction to Mesoamerican Archaeology), 315 (Topic 2).

**Topic 3: Introduction to Jewish Latin America.** Same as Anthropology 311E, Jewish Studies 305D, and Religious Studies 313E. Historical and cultural analysis of how Jews constructed lives and communities in predominantly Hispanic, Catholic countries of Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: Introduction to Jewish Latin America), 311E, Jewish Studies 311 (Topic: Introduction to Jewish Latin America), 305D, Latin American Studies 310 (Topic: Intro to Jewish Latin America), 315 (Topic: Intro to Jewish Latin America), 315 (Topic 3), Religious Studies 313 (Topic: Introduction to Jewish Latin America), 313E.

### **LAS 316L. Introduction to Religions of Latin America.**

Same as African and African Diaspora Studies 316K and Religious Studies 316L. Examine a survey of religious practice across Latin America and the Caribbean. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 316K, 317E (Topic: Intro Relig/Lat Amer/Carib), Latin American Studies 310 (Topic: Intro Relig/Lat Amer/Carib), 316L, Religious Studies 316K (Topic: Intro Relig/Lat Amer/Carib), 316L.

### **LAS 319. Geography of Latin America.**

Same as Geography 319. Adaptations to population growth and spatial integration in cultural landscapes of great natural and ethnic diversity; problems of frontiers and cities. Three lecture hours a week for one semester.

### **LAS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Latin American Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Latin American studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **LAS 322. Topics in Latin American Studies.**

Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. Three lecture hours a week for one semester. Additional hours are required for some topics. Latin American Studies 322 and 330 may not both be counted unless the topics vary; Latin American Studies 322 and 370P may not both be counted unless the topics vary; Latin American Studies 322 and 370S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 10: Minorities and the Media.** Issues concerning minority or nondominant groups within the United States. Survey of minority communication problems: alienation, fragmentation, media and Internet access; criticism and feedback for minority groups based on racial/ethnic background, age, sex, disability, social or economic class, and sexual orientation. Only one of the following may be counted: Journalism 341H, 341J, 341M, Latin American Studies 322 (Topic 10), Mexican American Studies 374 (Topic 22), Urban Studies 354 (Topic: Minorities and the Media), Women's and Gender Studies 340 (Topic 21). Additional prerequisite: Upper-division standing.

**Topic 11: Narrative Journalism.** Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Journalism 335, Latin American Studies 322 (Topic 11: Latino Community Journalism), 322 (Topic 11: Narrative Journalism), Mexican American Studies 374 (Topic 4: Latino Community Journalism), 374 (Topic 4: Narrative Journalism). Prerequisite: Upper-division standing and consent of instructor.

**Topic 13: Latin American Theatre and Drama.** Same as Theatre and Dance 357T (Topic 1: Latin American Theatre and Drama). Prerequisite: Upper-division standing and consent of instructor.

**Topic 15: Indigenous Languages of the Americas.** Same as Linguistics 350 (Topic 6: Indigenous Languages of the Americas). Examines various aspects of languages in the Americas, including their linguistic structures, the cultural domains in which they exist, and their histories of language contact and change. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**Topic 19: Afro-Caribbean Diasporas.** Same as African and African Diaspora Studies 345N. Analysis of the socio-cultural contexts of the African diaspora in the Americas, with a specific focus on the African

diaspora in the islands of the Caribbean. Designed to analyze the cultural, social, and philosophical contributions of these diasporic populations and the ways they build social and cultural agency in their specific national or diasporic contexts. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345N, 374E (Topic 6), Latin American Studies 322 (Topic 19). Additional prerequisite: Upper-division standing.

**Topic 20: Journalism and Press Freedom in Latin America.** Same as Journalism 354F. Focus on journalism in Latin America with an emphasis on the struggle for democracy and press freedom in the region through country-by-country survey of historical, political, economic, cultural, ethnic and geographical aspects. Examination of the evolution of professional journalism in Latin America, including topics such as the legal framework for freedom of expression, ethical principles, concentration of media ownership and the emergence of digital media. Knowledge of Spanish language is recommended, but it is not a requirement. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 354F, 367E, Latin American Studies 322 (Topic 14), 322 (Topic 20).

**Topic 21: Measuring Racial Inequality.** Same as African and African Diaspora Studies 350. Analysis of racial inequality through social statistics. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350, 372F (Topic: Measuring Racial Inequality), Latin American Studies 322 (Topic: Measuring Racial Inequality), 322 (Topic 21). Additional prerequisite: Upper-division standing.

#### **LAS 322C. Race, Empire, And Modernity.**

Same as African and African Diaspora Studies 350E. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350E, 372F (Topic: Race, Empire, And Modernity), Latin American Studies 322 (Topic: Race, Empire, And Modernity), 322C. Prerequisite: Upper-division standing.

#### **LAS 322D. Religions of the Caribbean.**

Same as African and African Diaspora Studies 345G, Anthropology 323D, and Religious Studies 366D. Examine the histories and politics of religious practices in the Greater Caribbean, encompassing the islands and Central American coasts as well as the continental diasporas, from Vodou and Rastafari to popular Hinduism. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Religions of the Caribbean) 345G, Anthropology 324L (Topic: Religions of the Caribbean), 323D, Latin American Studies 324L (Topic: Religions of the Caribbean), 322D, Religious Studies 366 (Topic: Religions of the Caribbean), 366 (Topic 2), 366D. Prerequisite: Upper-division standing.

#### **LAS 322E. Latino Migrations and Asylum.**

Same as Mexican American Studies 364D. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 364D, 374 (Topic: Latino Migrations and Asylum), Latin American Studies 322 (Topic: Latino Migrations and Asylum), 322E. Prerequisite: Upper-division standing.

#### **LAS 322F. Latino Migration and Human Trafficking.**

Same as Mexican American Studies 364G and Sociology 322T. Critically examine the complexity and intersectionality of Latino migration and human trafficking from global, regional, and local perspectives. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 322 (Topic: Latino Migrtn/Human Traffic), 322F, Mexican American Studies 364G, 374 (Topic: Latino Migrtn/Human Traffic), Sociology 321K (Topic: Latino Migrtn/Human Traffic), 322T. Prerequisite: Upper-division standing.

#### **LAS 322G. Black Freedom Movement.**

Same as African and African Diaspora Studies 360I and American Studies 324D. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360I, 372C (Topic: Black Freedom Movement), American Studies 321 (Topic: Black Freedom Movement), 324D, Latin American Studies 322 (Topic: Black Freedom Movement), 322G. Prerequisite: Upper-division standing.

#### **LAS 322J. Racism and Inequality in Latin America.**

Same as African and African Diaspora Studies 345R. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345R, 374E (Topic: Racism/ Inequality Lat Amer), Latin American Studies 322 (Topic: Racism/ Inequality Lat Amer), 322J. Prerequisite: Upper-division standing.

#### **LAS 322L. Empires: Aztec and Spanish.**

Same as Anthropology 326O. Examine the daily life of people in the Mexica (commonly known as Aztec) empire after the Spanish conquest. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: Aztecs and Spaniards), 310L (Topic 9), 326O, Latin American Studies 315 (Topic: Aztecs and Spaniards), 322L. Prerequisite: Upper-division standing.

#### **LAS 322N. African Religion in the New World.**

Same as African and African Diaspora Studies 345P and Religious Studies 366N. Explore the contributions of scholars and artists who engage African diaspora religions in their work through multiple conceptual approaches. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345P, 370 (Topic: Afr Religion in New World), 374E (Topic: Afr Religion in New World), Latin American Studies 322 (Topic: Afr Religion in New World), 322N, Religious Studies 361 (Topic: Afr Religion in New World), 366 (Topic: African Religion in New World), 366N. Prerequisite: Upper-division standing.

#### **LAS 322P. Qualitative Methods for Social Research.**

Same as Geography 329K and Sociology 320T. Explore hands-on training in qualitative methods used in mixed methods research in contemporary social science. Examine the application and use of case studies; archival analysis; content analysis; participant observation and ethnography; key informant ("elite") interviewing; focus groups; social psychological testing; and how to design and run surveys. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 329K, Latin American Studies 322P, Sociology 320T, 321K (Topic: Qualty Mthds in Socl Rsrch). Prerequisite: Upper-division standing.

#### **LAS 322Q. Afro-Latinidades in the United States and Latin America.**

Same as African and African Diaspora Studies 345T and Mexican American Studies 364K. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345T, 370 (Topic: Afro-Latinidades US/Lat Am), 374E (Topic: Afro-Latinidades US/Lat Am), Latin American Studies 322 (Topic: Afro-Latinidades US/Lat Am), 322Q, Mexican American Studies 364K, 374 (Topic: Afro-Latinidades US/Lat Am). Prerequisite: Upper-division standing.

#### **LAS 324G. Sexuality in Global Perspective.**

Same as Anthropology 324V and Women's and Gender Studies 335 (Topic 14). Explore the ways in which sexuality intersects with money, intimacy, power, and labor in the context of global economic processes. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Sexuality in Global Persp), 324V, Latin American Studies 324G, Women's and Gender Studies 335

(Topic: Sexuality in Global Persp), 335 (Topic 14). Prerequisite: Upper-division standing.

### **LAS 324L. Topics in Latin American Anthropology.**

Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 10: The Civilization of the Maya.** Same as Anthropology 360K. Maya prehistory and history: the archaeological record, codices and inscriptions, and Spanish conquest writings. Prerequisite: Upper-division standing.

**Topic 13: Colonial Latin American Archaeology.** Same as Anthropology 327D. Focuses on the Spanish colonies in Latin America. Three lecture hours a week for one semester. Anthropology 327D and Latin American Studies 324L (Topic 13) may not both be counted.

**Topic 14: The Politics of Race and Violence in Brazil.** Same as African and African Diaspora Studies 345L and Anthropology 324L (Topic 37). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345L, 374E (Topic 2), Anthropology 324L (Topic 37), Latin American Studies 324L (Topic 14). Additional prerequisite: Upper-division standing.

**Topic 15: Global Indigenous Issues.** Same as Anthropology 324L (Topic 53). Explores contemporary issues of indigenous peoples around the world through films, literature, and social science readings and focuses on how indigenous peoples are actively working to oppose their oppression and create sustainable futures. Only one of the following may be counted: Anthropology 324L (Topic: Global Indigenous Issues), 324L (Topic 53), Latin American Studies 324L (Topic: Global Indigenous Issues) 324L (Topic 15).

**Topic 16: Mexican Immigration Cultural History.** Same as Anthropology 322P and Mexican American Studies 364F. Examines the history of Mexican immigration to the United States, and provides an overview of migratory patterns dating back to the late prehistoric period through contemporary times. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322M (Topic 12), 322P, Latin American Studies 324L (Topic 16), Mexican American Studies 364F, 374 (Topic: Mexican Immigration Cultural History). Additional prerequisite: Upper-division standing.

**Topic 17: Black Women and the State.** Same as African and African Diaspora Studies 360E, Anthropology 324L (Topic 78), and Women's and Gender Studies 340 (Topic 7). Surveys black women's experiences living with and confronting state oppression around the world. Takes an historical, social, and theoretical look at the roots of this oppression and inequality, and how black women have chosen to respond to it locally and globally. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360E, 372F (Topic 11), 372F (Topic 12), Anthropology 324L (Topic 78), Latin American Studies 324L (Topic 17), Women's and Gender Studies 340 (Topic 7), 340 (Topic 63). Additional prerequisite: Upper-division standing.

**Topic 18: Inca World.** Same as Anthropology 324L (Topic 74). Explores how Inca civilization developed, how the Incas grew from a small highland state into a mighty empire, and how a small number of Spaniards and their allies were able to bring the Inca dynasty to an end. Read accounts of the Incas written in the first years of Spanish colonial rule, and review the latest archaeological discoveries. Only one of the following may be counted: Anthropology 324L (Topic: Inca World), 324L (Topic 74), Latin American Studies 324L (Topic: Inca World), 324L (Topic 18). Additional prerequisite: Upper-division standing.

**Topic 19: Globalization in Latin America.** Same as Anthropology 324O. Critically examine the globalization phenomenon in Latin

America, focusing on history and ethnography. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Globalization in Latin Amer), 324O, Latin American Studies 324L (Topic: Globalization in Latin Amer), 324L (Topic 19). Additional prerequisite: Upper-division standing.

**Topic 20: Mexican American Indigenous Heritage.** Same as Anthropology 322Q and Mexican American Studies 374 (Topic 23). The prehistory, history, and contemporary racial understanding of Mexican Americans. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322M (Topic 10), 322Q, Latin American Studies 324L (Topic: Mexican Amer Indig Heritage), 324L (Topic 20), Mexican American Studies 374 (Topic 23). Additional prerequisite: Upper-division standing.

**Topic 21: Cultures in Contact.** Same as Anthropology 326L. History of the interactions of the indigenous peoples of the Americas with Africans, Asians, and Europeans over the past five hundred years. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 326L, Latin American Studies 324L (Topic: Cultures in Contact), 324L (Topic 21). Additional prerequisite: Upper-division standing.

### **LAS 324Q. Daily Life in Mesoamerica.**

Same as Anthropology 324R. Examine the daily life of people in Mesoamerica, from the earliest inhabitants in the region to the myriad ways that Precolumbian life and archaeology affect the lives of people today. Three lecture hours a week for one semester. Only one of the following may count: Anthropology 324L (Topic: Daily Life in Mesoamerica), 324R, Latin American Studies 324L (Topic: Daily Life in Mesoamerica), 324Q. Prerequisite: Upper-division standing.

### **LAS 324S. Jewish Cuba.**

Same as Anthropology 325V, Jewish Studies 365 (Topic 16), and Religious Studies 366E. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Jewish Cuba), 325V, Jewish Studies 365 (Topic: Jewish Cuba), 365 (Topic 16), Latin American Studies 324L (Topic: Jewish Cuba), 324S, Religious Studies 366 (Topic: Jewish Cuba), 366E. Prerequisite: Upper-division standing.

### **LAS 325. Topics in Latin American Sociology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Society of Modern Mexico.** Same as Sociology 335 and Urban Studies 338S. Family, community, industrialization, and urbanization in modern Mexico. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 325 (Topic 1), Sociology 335, Urban Studies 338S, 354 (Topic 2). Additional prerequisite: Upper-division standing.

**Topic 2: Social Change in Developing Nations.** Overview of changing social structure in the Third World. Latin American Studies 325 (Topic 2) and Sociology 324K may not both be counted. Prerequisite: Upper-division standing.

**Topic 4: Politics and Society in Latin America.** Same as Sociology 321P. Introduction to present-day Latin American politics and society with a focus on drug-trafficking and urban destitution in Brazil; party politics, protest, and collective violence in Argentina; the current political situation in Venezuela; and migration from Central America and the Caribbean to the United States. Also includes a general overview of revolutions and revolutionary movements in Latin America, and the effects of United States intervention in the region during the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 325 (Topic: Politics and Society in Latin America), Latin American Studies 325 (Topic 4), Sociology 321K (Topic: Politics and

Society in Latin America), Sociology 321P. Additional prerequisite: Upper-division standing.

**Topic 5: Consumption in Latin America.** Same as Sociology 321C. Study of the role consumption plays in social, economic, and political relations in Latin America, as well as contesting ideas about this role. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 325 (Topic: Consumption in Latin America), Latin American Studies 325 (Topic 5), Sociology 321C, Sociology 321K (Topic: Consumption in Latin America). Additional prerequisite: Upper-division standing.

### **LAS 325E. Geographies of Latin American to United States Migration.**

Same as Geography 322L. Examine the contemporary complex multi-scalar origins, patterns, and processes of Latin American and Caribbean migration and settlement in the United States. Through a place-specific, spatially contextualized, and historically situated approach, explore the collective and individual experiences of migrants, asylum seekers, and refugees from select nations including: Mexico, Guatemala, Honduras, El Salvador, Puerto Rico, the Dominican Republic, Haiti, and Cuba. Analyze the multi-layered factors shaping diverse Latin American migratory patterns and processes. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 322L, 356T (Topic: Geog of Lat American-U.S. Migr), Latin American Studies 325E, 330 (Topic: Geog of Lat American-U.S. Migr). Prerequisite: Upper-division standing.

### **LAS 326. Topics in Latin American Music.**

Three lecture hours a week for one semester, with one laboratory hour a week if required. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Music of Mexico and the Caribbean.** Same as African and African Diaspora Studies 338F and Music 334 (Topic 1). Introduction to the history of Mexican and Caribbean traditional and commercial music, with some discussion of classical music as well. Attention will be given to music of indigenous, African, European, and mixed origin. Mexico and the Spanish-speaking Caribbean receive special attention. Class meetings will be divided into lecture/discussion segments, videos, listening, and performance instruction/demonstration. Only one of the following may be counted: African and African Diaspora Studies 338F, 374F (Topic 22), Latin American Studies 326 (Topic 1), Music 334 (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 2: Music of Latin America.** Same as African and African Diaspora Studies 338D and Music 334 (Topic 2). Consider Latin American music within a broad cultural and historical framework. Latin American musical practices are explored illustrating the many ways that aesthetics and society are embodied in and negotiated through performance. Concepts include diaspora, colonialism, mestizaje, hybridity, migration and globalization. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 338D, 374F (Topic: Music of Latin America), Latin American Studies 322 (Topic: Music of Latin America), 326 (Topic 2), Music 334 (Topic 2).

**Topic 3: Music of Brazil and Argentina.** Same as Music 334 (Topic 3). An introduction to Brazilian and Argentine music from samba, capoeira, and forró to tango, cumbia villera, and chacarera; examines such music making within its various historical, social, and political contexts. Uses course readings, lectures, listening assignments, performance attendance, and movie screenings to analyze themes including nationalism and ethnicity, globalization and development, and democracy and social justice. Only one of the following may be counted: Latin American Studies 322 (Topic: Music of Brazil and Argentina), 326 (Topic 3), Music 334 (Topic 3). Prerequisite: Upper-division standing.

**Topic 4: Music of the Andean Countries.** Same as Music 334 (Topic 4). Introduction to the music of Andean countries including Colombia, Ecuador, Peru, Bolivia, and Chile. Explores the role music plays in shaping historical and modern Andean societies, as well as how music comments upon national culture, society, and politics, with particular attention to the ways in which musicians and musical movements continue to influence Andean societies. Subjects include pre-Columbian and colonial music making; music representative of the tripartite indigenous, African, and Iberian heritage of Andean countries; aesthetics, identity, and musical expression; ritual, religion, and the politics of musical performance. Only one of the following may be counted: Latin American Studies 322 (Topic: Music of the Andean Countries), 326 (Topic 4), Music 334 (Topic 4).

**Topic 5: The Music of the African Diaspora.** Same as African and African Diaspora Studies 338E and Music 334 (Topic 5). The musical legacy of the African slave trade in the Americas, the social contexts in which black musical forms have developed, and their varied forms. Subjects include the shifting meanings of "black music" in various contexts; the notion of hybridity; the uses of African influenced music as a political or oppositional tool; and African ethnic groups represented prominently in the New World, the traditions they brought with them, and the ways they have been adapted to new ends. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 338E, 374F (Topic 8), Latin American Studies 326 (Topic 5), Music 334 (Topic: Music of the African Diaspora), 334 (Topic 5). Additional prerequisite: Upper-division standing.

### **LAS 327. Topics in Latin American Art History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Chicano Art Histories and Futures.** Same as Art History 341L. Mexican American art since the 1960s, with an emphasis on the visual production and exhibition of identity inside and outside the Chicano civil rights movement and the politics of U.S. multiculturalism. An introduction to a broad range of art history written to date—including recent feminist and queer interventions—as a means of envisioning a supposed "post-Chicano" or "post-racial" moment. Three lecture hours a week for one semester. Art History 341L and Latin American Studies 327 (Topic 1) may not both be counted.

**Topic 2: Modern Art of Mexico.** Same as Art History 341K. Mexican visual culture from the late nineteenth century through 1968. Emphasis on the emergence of modernist avant-gardes and popular entertainment, and their ambivalent relationship to state, church, and market. Also explores how self-consciously negotiating the tension between native and international influences, artists, critics, and curators contributes to notions of *Lo Mexicano*, or "Mexicanness." Three lecture hours a week for one semester. Art History 341K and Latin American Studies 327 (Topic 2) may not both be counted.

**Topic 3: Mesoamerican Art and Culture.** Same as Art History 347L. Mesoamerican art, architecture, and its archaeological context, with emphasis on the social function of art and visual culture in ancient Mesoamerica up to the time of European contact. Three lecture hours a week for one semester. Art History 347L and Latin American Studies 327 (Topic 3) may not both be counted.

**Topic 5: Maya Art and Architecture.** Same as Art History 347M. Introduction to the artistic traditions of the ancient Maya, tracing their development up to the time of European contact. Students will examine various important themes of Maya culture including history, ritual, and cosmology as revealed in sculpture, hieroglyphs, painting, and architectural design. Three lecture hours a week for one semester. Art History 347M and Latin American Studies 327 (Topic 5) may not both be counted.

**Topic 6: Art and Archaeology of Ancient Peru.** Same as Art History 347K. The growth of civilization in South America from the earliest decorated textiles, pottery, and ceremonial buildings to the imperial Inca style. Three lecture hours a week for one semester. Art History 347K and Latin American Studies 327 (Topic 6) may not both be counted.

**Topic 7: Art Cinemas of the Americas.** Same as Art History 341S. Examine art cinemas from the Spanish-speaking Americas from the 1950s to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 341S, 361 (Topic: Art Cinemas of the Americas), Latin American Studies 327 (Topic: Art Cinemas of the Americas), 327 (Topic 7).

**Topic 9: Contemporary Latin American Art.** Same as Art History 341P. Development and sources of art in the Caribbean and Central and South America from the 1960s to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 341P, 361 (Topic: Contemporary Latin Amer Art), Latin American Studies 327 (Topic: Contemporary Latin Amer Art), 327 (Topic 9).

### **LAS 328. Topics in Latin American Arts, Literature, Film, and Dance.**

Three lecture hours a week for one semester; some topics may require additional hours. Latin American Studies 322 and 328 may not both be counted unless the topics vary. Latin American Studies 328 and 370P may not both be counted unless the topics vary. Latin American Studies 328 and 370S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with topic.

**Topic 1: Samba to Hip Hop: Brazilian Popular Music.** Same as Portuguese Civilization 320E (Topic 1). Examines the role of popular music in relationships of power with subordination and the impact of music as a form of cultural expression.

**Topic 2: Global Brazil: Immigration and Diaspora in Brazilian Culture.** Same as Portuguese Civilization 320E (Topic 2). Examination of twentieth-century literature, films, and other cultural artifacts that capture the multicultural reality of Brazilian society and challenge the image of Brazil as a unified, harmonious, racially-mixed nation. Subjects include contemporary textual and visual representations of the Brazilian diaspora in the United States and Europe. Only one of the following may be counted: Latin American Studies 328 (Topic 2), 370P (Topic 6), Portuguese Civilization 320E (Topic 2), Portuguese 375 (Topic 7).

**Topic 3: Afro-Luso-Brazilian Worlds.** Same as African and African Diaspora Studies 345D and Portuguese Civilization 320E (Topic 3). Examine the myths and realities in the Afro-Luso-Brazilian worlds and the connections and contrasts between them. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345D, 372G (Topic 8), 374E (Topic: Afro-Luso-Brazilian Worlds), Latin American Studies 328 (Topic 3), Portuguese Civilization 320E (Topic 3). Additional prerequisite: Upper-division standing.

**Topic 4: Jewish Voices from Latin America.** Same as Jewish Studies 363 (Topic 15) and Spanish Civilization 320C (Topic 1). An introduction to Jewish writers from Brazil and Latin America, with an emphasis on those whose works portray the situation of the Jewish communities in their respective cities and countries. Only one of the following may be counted: Jewish Studies 363 (Topic 15), 363E, Latin American Studies 328 (Topic 4), 370S (Topic 32), Spanish 355 (Topic 3), 355D, Spanish Civilization 320C (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 5: Mediascapes: Literature and Media in the Caribbean.** Same as African and African Diaspora Studies 345Q and Spanish Civilization 320C (Topic 2). Analyzes the relationship between literature and media technologies in contemporary Caribbean cultures. Three lecture

hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345Q, 370 (Topic: Lit and Media in Caribbean), 372G (Topic: Lit and Media in Caribbean), Latin American Studies 328 (Topic 5), 370S (Topic 28), Spanish 350E, Spanish 350K (Topic 5), Spanish Civilization 320C (Topic 2). Additional prerequisite: Upper-division standing.

**Topic 6: Race and Visual Culture in Latin America.** Examine race and visuality in several countries of Latin America. Only one of the following may be counted: Latin American Studies 328 (Topic: Race/Visual Culture Lat Am), 328 (Topic 6), Portuguese Civilization 320E (Topic: Race/Visual Culture Lat Am). Additional prerequisite: Upper-division standing.

### **LAS 328C. Transnational Latinx Popular Culture.**

Same as Mexican American Studies 347C and Women's and Gender Studies 340 (Topic 89). Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 328 (Topic: Transnatl Latinx Pop Culture), 328C, Mexican American Studies 347C, 374 (Transnatl Latinx Pop Culture), Women's and Gender Studies 340 (Topic: Transnatl Latinx Pop Culture), 340 (Topic 89). Prerequisite: Upper-division standing.

### **LAS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Latin American Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in Latin American studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **LAS 330. Topics in Latin American Geography.**

Three lecture hours a week for one semester. Latin American Studies 322 and 330 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 2: Landscapes of Mexico and Caribbean America.** Same as Geography 341K. The natural regions and cultural landscapes of Mexico, Central America, and the West Indies. Prerequisite: Upper-division standing.

**Topic 3: South America: Nature, Society and Sustainability.** Same as Geography 323K. Field study of environmental and social change in selected landscapes in South America, such as protected areas; places of food production; transportation routes; migrant landscapes; urban areas; sites of cultural and historical importance; and issues of human rights. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**Topic 4: Mapping Latin America.** Same as Geography 343E and History 363E. Discuss the role of maps in the creation of Latin America as a specific sort of place. As such, allows familiarity with a broad overview of Latin American history from Pre-Columbian civilizations to the modern period. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 343E, 356T (Topic: Mapping Latin America), 356T (Topic 12), History 363E, 363K (Topic: Mapping Latin America), 363K (Topic 4), Latin American Studies 330 (Topic: Mapping Latin America), 330 (Topic 4). Additional prerequisite: Upper-division standing.

**Topic 5: Vulnerability to Natural Hazards.** Same as Geography 334L. An interdisciplinary approach, set right at the nexus of both physical and human geography, to studying the types of natural disasters that occur throughout Earth with a focus on tropical areas. Explore a region's susceptibility to natural disasters by studying the physical phenomena that incite specific hazards so that their

spatial distribution can be outlined. Utilize theoretical frameworks that can expose the social causes of human vulnerability, the political repercussions of disasters, and how disaster response varies from country to country depending on varying political stances and economic conditions. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 334C, 334L, Latin American Studies 330 (Topic: Environment Hazards Latin America/Caribbean), 330 (Topic 5). Additional prerequisite: Upper-division standing.

### **LAS 331. Water Resources in Latin America and the Caribbean.**

Same as Geography 356D. Examine the variability of landscapes, climatic regions, and anthropogenic activities found throughout Latin America and the insular Caribbean to explore the complex issues related to water resource accessibility. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 356 (Topic: Water Res: Lat Amer/Caribbean), 356D, Latin American Studies 330 (Topic: Water Res: Lat Amer/Caribbean), 331. Prerequisite: Upper-division standing.

### **LAS 337L. Issues in Third World Development.**

Same as Government 366F. Explore important issues in the politics of developing countries. Three lecture hours a week for one semester. Only one of the following may be counted: Government 365N (Topic 17), 366F, Latin American Studies 337L, 337M (Topic: Iss in Third-World Development). Prerequisite: Six semester hours of lower-division coursework in Government.

### **LAS 337M. Topics in Latin American Politics.**

Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### **Topic 5: Introduction to Latin American Government and Politics.**

Same as Government 328L. An introductory survey of Latin American political systems: governmental organization, political processes, and current problems. Prerequisite: Six semester hours of lower-division coursework in government.

**Topic 9: The Military in Politics.** Same as Government 365G and Russian, East European, and Eurasian Studies 335 (Topic 10). Three lecture hours a week for one semester. Only one of the following may be counted: Government 365G, 365N (Topic 3); Latin American Studies 337M (Topic 9); Russian, East European, and Eurasian Studies 335 (Topic 10). Additional prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

### **LAS 337N. Afro-Caribbean Politics and Culture in Central America.**

Same as African and African Diaspora Studies 326, Anthropology 324L (Topic 47), and Women's and Gender Studies 340 (Topic 38). Exploration of black identity, political systems, and community activism in Central America and the Caribbean. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 326, 374E (Topic: Afro-Caribbean Politics and Culture in Central America), Anthropology 324L (Topic: Afro-Caribbean Politics and Culture in Central America), 324L (Topic: 47), Government 365N (Topic: Afro-Caribbean Politics and Culture in Central America), Latin American Studies 337M (Topic: Afro-Caribbean Politics and Culture in Central America), 337N, Women's and Gender Studies 340 (Topic: Afro-Caribbean Politics and Culture in Central America), 340 (Topic 38). Prerequisite: Upper-division standing.

### **LAS 337O. Law and Democracy in Latin America.**

Same as Government 337D. Explore many of the challenges to the rule of law across Latin America and how they affect the quality of democracy in the region. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337D, 337M (Topic 7), Latin American Studies 337M (Topic 12), 337O. Prerequisite: Six semester hours of lower-division coursework in Government.

### **LAS 337P. International Politics of Latin America.**

Same as Government 337E. Analyze Latin America's political and economic relations with respect to external actors. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337E, 337M (Topic 8), Latin American Studies 337M (Topic 13), 337P. Prerequisite: Six semester hours of lower-division coursework in Government.

### **LAS 337Q. Politics, Economy, and Society of Contemporary Brazil.**

Same as Government 337F. Examine major economic, political, and sociological developments in Brazil. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337F, 337M (Topic 9), Latin American Studies 337M (Topic 14), 337Q. Prerequisite: Six semester hours of lower-division coursework in Government.

### **LAS 337R. The Politics of Development in Latin America.**

Same as Government 337G. Examine the struggle for development in Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337G, 337M (Topic 2), 337M (Topic 16), Latin American Studies 337M (Topic 2), 337M (Topic 16), 337R. Prerequisite: Six semester hours of lower-division coursework in Government.

### **LAS 337S. Latino Politics.**

Same as Government 371L and Mexican American Studies 374 (Topic 15). Explore the political experiences of the United States Latino populations. Three lecture hours a week for one semester. Only one of the following may be counted: Government 370K (Topic 2), 371L, Latin American Studies 337M (Topic 8), 337S, Mexican American Studies 374 (Topic 15). Prerequisite: Six semester hours of lower-division coursework in government.

### **LAS 337T. The Politics of Mexico.**

Same as Government 337C. Explore Mexico's political and economic development. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337C, 337M (Topic 6), Latin American Studies 337M (Topic 11), 337T. Prerequisite: Six semester hours of lower-division coursework in Government.

### **LAS 355. Topics in Latin American Economics.**

Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Development Problems and Policies in Latin America.** Same as Economics 355. Analysis of the economies of Latin America. Issues may include the structure and functioning of cities, rural-urban migration, the sectoral composition of GDP and employment, and determinants of growth. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 355, Latin American Studies 355 (Topic 1), Urban Studies 351 (Topic 1). Additional prerequisite: Economics 304K and 304L with a grade of at least C- in each.

## LAS 359H. Honors Seminar.

An interdisciplinary discussion and writing seminar. Lectures and supervised individual research and writing of a substantial paper on a special topic. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, and consent of instructor and the Latin American studies honors adviser.

## LAS 366. Topics in Latin American History.

Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 2: Colonial Latin America.** Same as History 346K. Basic survey course, designed as an introduction to Latin American history in the colonial period. Only one of the following may be counted: History 310K, 346K, Latin American Studies 310 (Topic 1: Latin American Civilization: The Colonial Experience), 366 (Topic 2). Prerequisite: Upper-division standing.

**Topic 3: Modern Latin America.** Same as History 346L. Continuation of History 346K and Latin American Studies 366 (Topic 2). Only one of the following may be counted: African and African Diaspora Studies 374E (Topic: Modern Latin America), 374E (Topic 5), History 310L, 346L, Latin American Studies 310 (Topic 2: Latin American Civilization: The National Experience), 366 (Topic 3). Additional prerequisite: Upper-division standing.

**Topic 7: Resistance, Rebellion, and Revolution in Colonial Spanish America.** Same as History 350L (Topic 19: Resistance, Rebellion, and Revolution in Colonial Spanish America). Only one of the following may be counted: History 350L (Topic 19), Latin American Studies 366 (Topic: Resistance, Rebellion, and Revolution in Colonial Spanish America), 366 (Topic 7). Prerequisite: Upper-division standing.

**Topic 8: The Mexican Revolution, 1910-1920.** Same as History 352L. An analytical examination of the initial decade of the Mexican Revolution, the first of the twentieth-century nationalist social revolutions; examines through lectures and discussion the historical antecedents and the political, economic, social, and intellectual elements of the upheaval. Prerequisite: Upper-division standing.

**Topic 9: Revolution in Twentieth-Century Latin America.** Same as History 346S. An introduction to recent Latin American history, with emphasis on phenomena that explain the apparent social unrest and political instability of the region. Only one of the following may be counted: History 346L, 366N (Topic: Revolution in Twentieth-Century Latin America), Latin American Studies 366 (Topic 9). Prerequisite: Upper-division standing.

**Topic 12: Modern Brazil.** Same as History 328M. The social, economic, political, and cultural forces that have shaped modern Brazil. Prerequisite: Upper-division standing.

**Topic 13: Revolution in Modern Latin America.** Same as History 346R. Comparison of the Mexican and Cuban revolutions and of their challenges to inter-American relations. Prerequisite: Upper-division standing.

**Topic 15: History of Modern Central America.** Same as History 350L (Topic 42: History of Modern Central America). Only one of the following may be counted: History 350L (Topic 42), 363K (Topic: History of Modern Central America), Latin American Studies 366 (Topic 15). Prerequisite: Upper-division standing.

**Topic 16: Culture and Identity in Colonial Mexico.** Same as History 350L (Topic 44: Culture and Identity in Colonial Mexico). Prerequisite: Upper-division standing.

**Topic 17: The Cuban Revolution and the United States.** Same as History 346T. The special economic and political relationship between the United States and Cuba from 1898 to 1967; and how the 1959 revolution affected the Cold War relationships between East and West, North and South. Only one of the following may be counted: History

346T, 366N (Topic: The Cuban Revolution and the US), Latin American Studies 366 (Topic: The Cuban Revolution and the US), 366 (Topic 17). Prerequisite: Upper-division standing.

**Topic 18: History of the Caribbean.** Same as History 350L (Topic 62: History of the Caribbean). Overview of Caribbean history from 1492 to the present. Topics include contact between European and native cultures, piracy, slavery, colonialism and decolonization, and revolutions. Prerequisite: Upper-division standing.

**Topic 19: Twentieth-Century Rural Latin America.** Same as History 346V. Examines causes of some of the unresolved conflicts affecting Latin America today, including the social-agrarian relationships linking landlords and campesinos; the role of the state and the impact of official ideologies involving indigenous people; religion and the Catholic Church; the history of rural institutions; and the success or failure of land reforms. Only one of the following may be counted: History 346V, 363K (Topic: Twentieth-Century Rural Latin America), Latin American Studies 366 (Topic 19). Prerequisite: Upper-division standing.

**Topic 20: Colonial Latin America through Objects.** Same as History 346J. Examines objects, such as paintings, reliquaries, monstrosities, and churches from colonial Latin America in order to understand colonial culture. Includes critical reading of original texts. Only one of the following may be counted: History 346J, 363K (Topic: Colonial Latin America through Objects), Latin American Studies 366 (Topic 20). Prerequisite: Upper-division standing.

**Topic 21: Church and State in Latin America.** Same as History 346W and Religious Studies 368D. History of Church-state relations and religious politics in modern Latin America, with emphasis on the nineteenth to early twentieth-century periods. Three lecture hours a week for one semester. Only one of the following may be counted: History 346W, Latin American Studies 366 (Topic 21), Religious Studies 368 (Topic 1), 368D. Additional prerequisite: Upper-division standing.

**Topic 22: Reimagining Cuba, 1868-Present.** Same as African and African Diaspora Studies 345M and History 347C. Explores Cuban-United States relations from the nineteenth century to the present, including issues of empire and transnationalism, and social change engagements between Cuba and the United States before and after the Cuban Revolution. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345M, 374E (Topic 4), History 347C, Latin American Studies 366 (Topic 22). Additional prerequisite: Upper-division standing.

**Topic 23: Dictatorship, Dirty War, and Democracy in Latin America.** Same as History 350L (Topic 66). Only one of the following may be counted: History 350L (Topic: Dictator/Dirty War in Latin America), 350L (Topic 66), Latin American Studies 366 (Topic: Dictator/Dirty War in Latin America), 366 (Topic 23).

**Topic 24: Rethinking the Conquest of Mexico.** Same as History 350L (Topic 75). Explores the "conquest" of Mexico and the social, cultural, political, and economic processes which were set in motion by the Spanish invasion of Mexico. Only one of the following may be counted: History 350L (Topic: Rethinking Conquest of Mexico), 350L (Topic 75), Latin American Studies 366 (Topic: Rethinking Conquest of Mexico), 366 (Topic 24), Tutorial Course 357 (Topic: Rethinking Conquest of Mexico).

**Topic 25: The Religious Tradition in Latin America.** Same as History 350L (Topic 76) and Religious Studies 368E. Explores the different ways in which religion has helped to define the political, social, and philosophical structures of Latin America from colonial times to the present. Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic 76), Latin American Studies 366 (Topic 25), Religious Studies 368 (Topic 3), 368E. Additional prerequisite: Upper-division standing.

**Topic 26: Visual and Material Culture in Colonial Latin America.**

Same as History 350L (Topic 78). Focuses on the visual and material culture of colonial Spanish America. Only one of the following may be counted: History 350L (Topic: Visual and Material Culture in Colonial Latin America), 350L (Topic 78), Latin American Studies 366 (Topic: Visual and Material Culture in Colonial Latin America), 366 (Topic 26).

**Topic 27: Cultural Citizenship in the United States and Latin America.**

Same as History 361Q. An introduction to the history of relations between the United States and Latin America. Designed to prepare each student for a potential experience in Latin America (or with Latino communities in the United States) such as study abroad, research, and/or community engagement. Three lecture hours a week for one semester. Only one of the following may be counted: History 361Q, 363K (Topic 1), Latin American Studies 366 (Topic 27). Additional prerequisite: Upper-division standing.

**Topic 28: Argentina: Populism and Insurrection.** Same as History 363C. An overview of principal trends and issues in Argentine history from independence to the present. Three lecture hours a week for one semester. Only one of the following may be counted: History 363C, 363K (Topic 2), Latin American Studies 366 (Topic 28). Additional prerequisite: Upper-division standing.

**Topic 29: Religion, Conquest, and Conversion in Colonial Latin America.** Same as History 363D and Religious Studies 368F. Focuses on the histories of the Catholic Church and religious devotion in colonial Latin America between 1521 and 1821. Three lecture hours a week for one semester. Only one of the following may be counted: History 363D, 363K (Topic 3), Latin American Studies 366 (Topic 29), Religious Studies 368 (Topic 4), 368F. Additional prerequisite: Upper-division standing.

**Topic 31: Afro-Latin America.** Same as African and African Diaspora Studies 345E and History 350L (Topic 68). Examines the historical experiences of people of African descent in Latin America and the Caribbean beginning in the slavery era, and focuses on the histories of Afro-Latin Americans after emancipation. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345E, 372G (Topic 10), History 350L (Topic 68), Latin American Studies 366 (Topic 31). Additional prerequisite: Upper-division standing.

**Topic 32: Latin America in the Nineteenth Century.** Same as History 350L (Topic 86). Questions the geographical category of Latin America by examining the kinds of trends and forces of the nineteenth century that contributed to its conceptual emergence and to its growing political, economic, and cultural significance on the global stage. Only one of the following may be counted: History 350L (Topic: Latin America in the Nineteenth Century), 350L (Topic 86), Latin American Studies 366 (Topic: Latin America in the Nineteenth Century), 366 (Topic 32).

**Topic 34: The Bible in the Colonial Americas.** Same as Core Texts and Ideas 355, History 363F, and Religious Studies 366C. Varied perspectives on the central role played by the Old Testament in the construction of colonial cultures in the Americas. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 355, 375 (Topic 6), History 363F, 363K (Topic 5), Latin American Studies 366 (Topic 34), Religious Studies 366 (Topic 3), 366C. Additional prerequisite: Upper-division standing.

**Topic 35: When Christ was King.** Same as History 347P and Religious Studies 368C. The history of Catholicism in twentieth-century Mexico, often seen as Latin America's most "Catholic" nation. Three lecture hours a week for one semester. Only one of the following may be counted: History 347P, 350L (Topic: When Christ was King), Latin American Studies 366 (Topic: When Christ was King), 366 (Topic 35), Religious Studies 368 (Topic: When Christ was King), 368C. Additional prerequisite: Upper-division standing.

**Topic 36: Urban Slavery in the Americas.** Same as African and African Diaspora Studies 350P, American Studies 370 (Topic 55), and History

347N. Examines urban slavery in the Americas. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350P, 374E (Topic: Urban Slavery in the Americas), American Studies 370 (Topic: Urban Slavery in the Americas), 370 (Topic 55), History 347N, 350L (Topic: Urban Slavery in the Americas), Latin American Studies 366 (Topic: Urban Slavery in the Americas), 366 (Topic 36). Additional prerequisite: Upper-division standing.

**Topic 37: Chile: From Revolution to Counterrevolution.** Same as History 347R. An examination of the key political, social, and economic events that underpin contemporary Chilean society. Three lecture hours a week for one semester. Only one of the following may be counted: History 347R, 350L (Topic: Chile: Revultn to Cnterrevlutn), Latin American Studies 366 (Topic: Chile: Revultn to Cnterrevlutn), 366 (Topic 37). Additional prerequisite: Upper-division standing.

**Topic 38: Latin America in the Sixties.** Same as History 363T. Explore the impact of the Cuban revolution in Latin American politics, gender roles, and women's participation in public life during the sixties. Three lecture hours a week for one semester. Only one of the following may be counted: History 363K (Topic: Latin America in the Sixties), 363T, 366N (Topic: Latin America in the Sixties), Latin American Studies 366 (Topic: Latin America in the Sixties), 366 (Topic 38). Additional prerequisite: Upper-division standing.

**Topic 39: Life and Politics in Contemporary Mexico.** Same as History 363J. Examine an overview of life and politics in contemporary Mexico. Three lecture hours a week for one semester. Only one of the following may be counted: History 363J, 363K (Topic: Life/Politics Contemp Mexico), Latin American Studies 366 (Topic: Life/Politics Contemp Mexico), 366 (Topic 39). Additional prerequisite: Upper-division standing.

**Topic 40: Politics of Food in Latin America.** Same as History 366F. Examine food production, food consumption, and socio-cultural identities in Latin America through comparative and multidisciplinary research. Three lecture hours a week for one semester. Only one of the following may be counted: History 363K (Topic: Politics of Food in Latin Amer), 366F, Latin American Studies 366 (Topic: Politics of Food in Latin Amer), 366 (Topic 40). Additional prerequisite: Upper-division standing.

**Topic 41: Sexuality and Gender in Latin America.** Same as History 366P and Women's and Gender Studies 340 (Topic 91). Explore gender as a broad analytical tool to understand key problems concerning social organization, power relations, and inequality in contemporary Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: History 363K (Topic: Sexuality/Gender in Latin Amer), 366N (Topic: Sexuality/Gender in Latin Amer), 366P, Latin American Studies 366 (Topic: Sexuality/Gender in Latin Amer), 366 (Topic 41), Women's and Gender Studies 340 (Topic: Sexuality/Gender in Latin Amer), 340 (Topic 91). Additional prerequisite: Upper-division standing.

**Topic 43: Debt and Colonialism in the Caribbean.** Same as African and African Diaspora Studies 345O, American Studies 321O, and History 345O. Examine the role that debt has played in the formation of colonial and neocolonial practices in the Caribbean region. Take a broad approach to the concept of debt in order to explore the financial and monetary dynamics of debt, but also the political and cultural implications of debt. Focus in particular on debt as justification in the furtherance of colonialism throughout the Caribbean. Engage in a historical examination of the United States' colonial projects and military interventions in the region throughout the 20th and into the 21st centuries. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345O, 374E (Topic: Debt/Colonialism Caribbean), American Studies 321 (Topic: Debt/Colonialism Caribbean), 321O, History 345O, 363K (Topic: Debt/Colonialism Caribbean), Latin American Studies

366 (Topic: Debt/Colonialism Caribbean), 366 (Topic 43). Additional prerequisite: Upper-division standing.

**Topic 44: Race Against Empire: Americas.** Same as African and African Diaspora Studies 345K and History 374Q. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345K, 374E (Topic: Race Against Empire: Amers), History 366N (Topic: Race Against Empire: Americas), 374Q, Latin American Studies 366 (Topic: Race Against Empire: Amers), 366 (Topic 44). Additional prerequisite: Upper-division standing.

### **LAS 366C. Nationalisms in the Caribbean.**

Same as African and African Diaspora Studies 345I and History 371Q. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345I, 374E (Topic: Nationalism in Caribbean), History 363K (Topic: Nationalism in Caribbean), 371Q, Latin American Studies 366 (Topic: Nationalism in Caribbean), 366C. Prerequisite: Upper-division standing.

### **LAS 366D. Race, Rebellion and Revolution in the Caribbean.**

Same as African and African Diaspora Studies 345J and History 372Q. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345J, 374E (Topic: Race/Rebellion/Rev Caribbean), History 363K (Topic: Race/Rebellion/Rev Caribbean), 372Q, Latin American Studies 366 (Topic: Race/Rebellion/Rev Caribbean), 366D. Prerequisite: Upper-division standing.

### **LAS 370P. Topics in Luso-Brazilian Literature, Culture, Civilization, and Linguistics.**

Taught in Portuguese. Three lecture hours a week for one semester. Latin American Studies 322 and 370P may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Portuguese 611D, 611S, 612, 312L, or 516; additional prerequisites vary with the topic.

**Topic 2: Introduction to Literatures and Cultures.** Same as Portuguese 328C. Overview of Luso-Brazilian literatures and cultures, including the arts and popular expressions from a multidisciplinary perspective. Among the regions studied are Brazil, Portugal, and related areas in Africa. Three lecture hours a week for one semester. Latin American Studies 370P (Topic 2) and Portuguese 328C may not both be counted. Additional prerequisite: Portuguese 311C and 314C, 611D, 311J and 314J, or 611S (or 312L or 516).

**Topic 10: United States Latino Literatures and Cultures in Context.** Same as Portuguese 354. Examines the United States Latino literary and cultural production from a multidisciplinary perspective, through literature, film, music, and performance. Analyzes the literatures and experiences of Brazilian American writers and artists in their historical and cultural specificities. Three lecture hours a week for one semester. Latin American Studies 370P (Topic 10) and Portuguese 354 may not both be counted. Additional prerequisite: Portuguese 327C (or 362).

**Topic 11: Sociolinguistics.** Same as Portuguese 353. Explores the interrelationship of language and society with reference to the Portuguese-speaking world. Examines how socio-economic, political, and anthropological factors like race, social class, gender, age, and identity influence linguistics forms. Three hours a week for one semester. Latin American Studies 370P (Topic 11) and Portuguese 353 may not both be counted. Additional prerequisite: Portuguese 327C or 362, and 330L.

### **LAS 370S. Topics in Hispanic Literature, Culture, Civilization, and Linguistics.**

Taught in Spanish. Three lecture hours a week for one semester, or as required by the topic. Latin American Studies 322 and 370S may not

both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Spanish 311 and 314, or 311J and 314J, or 611D or 612 or 312L.

**Topic 23: Violence in Contemporary Mexican Culture.** Same as Spanish 355F and Women's and Gender Studies 340 (Topic 20). Studies the representation of violence in contemporary literary and cultural production in Mexico in order to understand social, political, and cultural implications of current violence there. Taught in Spanish. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 23), Spanish 355 (Topic 6), Spanish 355F, and Women's and Gender Studies 340 (Topic 20). Additional prerequisite: Spanish 327C (or 327G) and three hours of upper-division coursework in Spanish or Spanish Civilization.

### **Topic 24: Gender Issues in Contemporary Latin American Cinema.**

Same as Spanish 350C and Women's and Gender Studies 335 (Topic 6). Studies Latin American cinema as a device of gender system formation and reinforcement, and as criticism of patriarchal hegemony; discusses questions related to sexuality depicted in Latin American films. Subjects covered include: maternity, prostitution, machismo, children's sexuality, homosexuality, heterosexuality, and gender violence in films from the 1930s to present. Conducted in Spanish. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 24), Spanish 350 (Topic: Gender in Contemporary Latin American Cinema), 350C, 350K (Topic 1), Women's and Gender Studies 335 (Topic 6), 340 (Topic: Gender in Contemporary Latin American Cinema). Additional prerequisite: Spanish 327C, (or 327), (or 327G), and three hours of upper-division coursework in either Spanish or Spanish Civilization.

**Topic 27: Introduction to Literatures and Cultures.** Same as Spanish 328C. Overview of Iberian and/or Latin American literatures and cultures, including the arts and popular expressions, from a multidisciplinary perspective. Among the regions studied are Spain; North, Central, and South America; the Caribbean; and related areas in Africa. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 27), Spanish 328, 328C. Only one of the following may be counted: Latin American Studies 370S (Topic 3), 370S (Topic 27), Spanish 322K, 328C. Additional prerequisite: Spanish 311 and 314, 611D, or 311J and 314J (or 612 or 312L).

**Topic 32: Jewish Voices from Latin America.** Same as Jewish Studies 363E and Spanish 355D. Overview of popular Jewish writers from Brazil and Spanish America, with special emphasis on those who portray in their work the situation of the Jewish communities of their respective cities and countries. Conducted in Spanish. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic 15), 363E, Latin American Studies 328 (Topic 4), 370S (Topic 32), Spanish 355 (Topic 3), 355D, Spanish Civilization 320C (Topic 1). Additional prerequisite: Spanish 327C (or 327G) or 327N, and 328C.

### **Topic 43: United States Latino Literatures and Cultures in Context.**

Same as Spanish 359. Examines the United States Latino literary and cultural production from multidisciplinary perspectives, such as literature, film, music, and performance. Analysis of the literatures and experiences of United States Latino writers and artists in their historical and cultural specificities. Three lecture hours a week for one semester. Latin American Studies 370S (Topic 43) and Spanish 359 may not both be counted. Additional prerequisite: Spanish 327C or 327N, or 328C.

### **LAS 378. Capstone Course in Latin American Studies.**

Three lecture hours a week for one semester Prerequisite: Upper-division standing.

### **LAS 379. Conference Course in Latin American Studies.**

Supervised individual study of selected problems in Latin American studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor and the undergraduate adviser in Latin American studies.

### **LAS 679H. Honors Tutorial Course.**

For honors candidates in Latin American studies. Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis. Conference course for two semesters. Prerequisite: For Latin American Studies 679HA, Latin American Studies 359H, admission to the Latin American Studies Honors Program, and written consent of the Latin American Studies Honors Program adviser; for 679HB, Latin American Studies 679HA.

## **Graduate Courses**

### **LAS 381. Topics in Latin American Studies.**

A varied selection of topics each semester, taught by different faculty members and visiting professors. Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: International Migration.** Same as Sociology 389K (Topic 4: International Migration). May be counted toward either the demography specialization or the race and ethnicity specialization in the sociology degree program.

**Topic 6: Housing Practices and Public Policy in Latin America.** Same as Sociology 396P (Topic 13). May be counted toward the political sociology, development and globalization specialization in the sociology degree program. Only one of the following may be counted: Sociology 395D (Topic 5), 396P (Topic 13), Latin American Studies 381 (Topic 6).

**Topic 8: International Business Fellows Seminar.** Same as Asian Studies 391 (Topic 6), Middle Eastern Studies 380, and Russian, East European, and Eurasian Studies 380. Multidisciplinary seminar for students in area studies, business administration, law, and public policy. The faculty includes both academics and business leaders. Only one of the following may be counted: Asian Studies 391 (Topic 6), International Business 395 (Topic: International Business Fellows Seminar), Latin American Studies 381 (Topic 8), Middle Eastern Studies 380, Public Affairs 388K (Topic: International Business Fellows Seminar), Russian, East European, and Eurasian Studies 380.

**Topic 11: Information Resources on, and Services for, Hispanic Americans.** Information needs of Hispanic Americans; roles of academic, public, and school libraries in meeting those needs.

**Topic 12: Information Resources on Latin America.** Historical survey of sources of information on Latin America: bibliographical literature from and about Latin America during the colonial, national, and contemporary periods; various types of book and nonbook sources of information available to contemporary scholars. Additional prerequisite: Proficiency in Spanish or Portuguese and consent of instructor.

**Topic 14: Introduction to the Sociology of Latin America.** Same as Sociology 396P (Topic 10). Only one of the following may be counted: Latin American Studies 381 (Topic 14), Sociology 395D (Topic 2), 396P (Topic 10). May be counted toward the political sociology/development and globalization specialization in the sociology degree program.

**Topic 15: Local Economic Development.**

**Topic 16: Maya Hieroglyphic Writing.** Additional prerequisite: Consent of the graduate adviser.

**Topic 19: Political Economics of International Communication.** Latin American Studies 381 (Topic 19) and Radio-Television-Film 393P (Topic: Political Economics of International Communication) may not

both be counted. Additional prerequisite: Consent of instructor and the graduate adviser.

**Topic 20: Regional Planning in Latin America.**

**Topic 22: Documentary Tradition of Latin America.** Same as Journalism 395 (Topic 4). Study of still photographic and video documentary work by Latin Americans about Latin America. Production of photographic essays on Latin American culture. Three lecture hours and four laboratory hours a week for one semester. Journalism 395 (Topic 4) and Latin American Studies 381 (Topic 22) may not both be counted.

**Topic 23: Poverty and Marginality in the Americas.** Same as Sociology 396P (Topic 17). Review of the past and present ethnographic analyses of the nature and experiences of poverty and marginality in Latin America and in the United States. Examines some of the most controversial issues and debates, and explores emerging research topics north and south of the border. May be counted toward the sociology department's political sociology, development and globalization specialization in the sociology degree program. Only one of the following may be counted: Latin American Studies 381 (Topic: Poverty and Marginality in the Americas), 381 (Topic 23), Sociology 395D (Topic: Poverty and Marginality in the Americas), 396P (Topic 17).

### **LAS 381F. Methods for Social Science in Latin America.**

Three lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate Standing.

### **LAS 382. Conference Course in Latin American Studies.**

Individual study to be arranged with a faculty member. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **LAS 383. Invisible Global Market.**

Same as Advertising 391L and Public Affairs 388N. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 391L, Latin American Studies 383, Marketing 382 (Topic: Invisible Global Market), 382 (Topic: Invisible Global Marketing), 282, 382 (Topic 34), Middle Eastern Studies 382M, Public Affairs 388N. Offered on the letter-grade basis only.

### **LAS 384. Proseminar: Current Issues in Latin America.**

Three lecture hours a week for one semester. Latin American Studies 381 (Topic: Proseminar: Latin America in the Twentieth Century) and 384 may not both be counted. Prerequisite: Graduate standing in Latin American studies.

### **LAS 384L. Topics in Latin American Politics.**

A varied selection of topics each semester, taught by different faculty members and visiting professors. Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Brazilian Public Policies.** Same as Government 384L (Topic 1: Brazilian Public Policies). Three lecture hours a week for one semester. Additional prerequisite: Twenty-four semester hours of coursework in government or related fields and consent of the graduate adviser. Some reading knowledge of Spanish or Portuguese is recommended.

**Topic 2: Latin American Urban Politics.** Same as Government 384L (Topic 2: Latin American Urban Politics). Three lecture hours a week for one semester. Additional prerequisite: Twenty-four semester hours of coursework in government or related fields and consent of the

graduate adviser. Some reading knowledge of Spanish or Portuguese is recommended.

**Topic 3: Development Policy.** Same as Government 384M (Topic 6: Development Policy). Three lecture hours a week for one semester. Additional prerequisite: Twenty-four semester hours of coursework in government or related fields and consent of the graduate adviser.

**Topic 4: Policy Analysis.** Same as Government 384M (Topic 2: Policy Analysis). Study of the nature and operation of the national policymaking process. Three lecture hours a week for one semester. Additional prerequisite: Twenty-four semester hours of coursework in government or related fields and consent of the graduate adviser.

**Topic 5: Politics and Society in the Third World.** Same as Government 390L (Topic 15: Politics and Society in the Third World). Three lecture hours a week for one semester. Additional prerequisite: Twenty-four semester hours of coursework in government or related fields and consent of the graduate adviser.

**Topic 6: Comparative Politics: Latin America.** Same as Government 390L (Topic 18: Comparative Politics: Latin America). Three lecture hours a week for one semester. Additional prerequisite: Twenty-four semester hours of coursework in government or related fields and consent of the graduate adviser.

### **LAS 386. Topics in Latin American History.**

A varied selection of topics each semester, to allow curriculum flexibility for faculty members and visiting scholars. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

### **LAS 388. Topics in Latin American Geography.**

Three lecture hours a week for one semester. Latin American Studies 381 and 388 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Regional Geography of Latin America.** Same as Geography 385 (Topic 1: Latin America). Topics include land and life in Central America; culture, environment and development in Latin America; recent trends in Latin American geography. Additional prerequisite: Consent of instructor.

**Topic 2: Indigenous Maps, Architecture, and Enculturation of Colonial Mexico.** Same as Geography 388C. The encounter of Spanish and indigenous cultures and ecologies; regional diversity of agricultural, urban, and economic development from 1521 to 1810; ethnic transformation and new socioeconomic configurations.

**Topic 3: Latin American Cultures, Environment, and Development.** Same as Geography 395D. Exploration through Latin American examples of issues of cultural identity and territory, adaptive strategies, environmental impact, conservation, cultural survival, parks and people, and sustainable development. Additional prerequisite: Consent of instructor.

**Topic 4: Environment and Health in Latin America.** Same as Geography 380D. Issues related to health, health care, and development in Latin America and the Caribbean, considered with the recognition that health depends on the interactions of social, economic, and political factors as well as on health care services.

### **LAS 391. Topics in Latin American Anthropology.**

A varied selection of topics each semester, taught by different faculty members and visiting professors. Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 5: Race and Ethnicity in American Society.** Same as Anthropology 389K (Topic 19: Race and Ethnicity in American Society).

### **LAS 391K. Topics in Latin American Economics.**

A varied selection of topics each semester, taught by different faculty members and visiting professors. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Seminar on the Mexican Economy.** Additional prerequisite: Six semester hours of upper-division coursework in economics and six additional semester hours of upper-division coursework in social science or business.

**Topic 2: Current Issues in Latin American Economics.** Only one of the following may be counted: Economics 391K (Topic 2), Latin American Studies 391K (Topic: Current Economic Issues in Latin America), 391K (Topic 2). Additional prerequisite: Six semester hours of upper-division coursework in economics and six additional semester hours of upper-division coursework in social science or business.

**Topic 3: Latin American Economic Models.** Additional prerequisite: Six semester hours of upper-division coursework in economics and six additional semester hours of upper-division coursework in social science or business.

**Topic 4: Entrepreneurship and Development in Latin America.** Additional prerequisite: Six semester hours of upper-division coursework in economics and six additional semester hours of upper-division coursework in social science or business.

### **LAS 392P. Topics in Luso-Brazilian Literature, Culture, Civilization, and Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

### **LAS 392S. Topics in Hispanic Literature, Culture, Civilization, and Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

### **LAS 397R. Secondary Report.**

Preparation of a report to be counted toward the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in Latin American studies and consent of the supervising professor and the graduate adviser.

### **LAS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Latin American studies and consent of the supervising professor and the graduate adviser; for 698B, Latin American Studies 698A.

### **LAS 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Latin American studies and consent of the supervising professor and the graduate adviser.

### **LAS 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## Professional Courses

# Latin Courses

## Latin: LAT

### Lower-Division Courses

#### LAT 601C. Beginning Latin.

Fundamentals of grammar and reading. Six lecture hours a week for one semester. Only one of the following may be counted: Latin 601C; 506 and 507

#### LAT 506. First-Year Latin I.

Fundamentals of grammar and reading. Five lecture hours a week for one semester. Only one of the following may be counted: Latin 601C; or 506 and 507.

#### LAT 507. First-Year Latin II.

Continuation of Latin 506. Five lecture hours a week for one semester. Only one of the following may be counted: Latin 601C; or 506 and 507  
Prerequisite: Latin 506 with a grade of at least C.

#### LAT 309K. Conference Course.

Supervised individual instruction in second-year Latin reading. Conference course. May be repeated for credit. Prerequisite: Consent of instructor.

#### LAT 311 (TCCN: LATI 2311). Intermediate Latin I.

Continuation of Latin 601C and 507. Introduction to reading classical authors in their cultural context. Includes grammar review. Three lecture hours a week for one semester. Latin 311 and 511K may not both be counted. Prerequisite: Latin 601C or 507 with a grade of at least C.

#### LAT 511K. Accelerated Intermediate Latin.

Five lecture hours a week for one semester. Only one of the following may be counted: Latin 511K, 312K, 316. Latin 311 and 511K may not both be counted. Prerequisite: Latin 507 with a grade of at least C.

#### LAT 312K (TCCN: LATI 2312). Intermediate Latin II.

Continuation of Latin 311. Selected readings from classical authors. Three lecture hours a week for one semester. Only one of the following may be counted: Latin 511K, 312K, 316. Prerequisite: Latin 311 with a grade of at least C.

#### LAT 316. Intermediate Latin II: Poetry.

Continuation of Latin 311. Selected readings from classical and medieval poets. Three lecture hours a week for one semester. Only one of the following may be counted: Latin 511K, 312K, 316. Prerequisite: Latin 311 with a grade of at least C.

#### LAT 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Latin.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## Upper-Division Courses

### LAT 322. Advanced Latin I.

Reading and analysis of selected classical authors. Three lecture hours a week for one semester. Prerequisite: Latin 511K, 312K, or 316 with a grade of at least C.

### LAT 323. Advanced Latin II.

Reading and interpretation of prose and poetry texts at an early advanced level. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Latin 322 with a grade of at least C.

**Topic 5: Cicero and Catullus.** Latin 323 (Topic: Cicero and Catullus) and 323 (Topic 5) may not both be counted.

**Topic 6: Elegy.** Latin 323 (Topic: Elegy) and 323 (Topic 6) may not both be counted.

**Topic 7: Images of Augustus.** Latin 323 (Topic: Images of Augustus) and 323 (Topic 7) may not both be counted.

**Topic 8: Christian Martyrs in the Roman Empire.** Latin 323 (Topic: Christian Martyrs in the Roman Empire) and 323 (Topic 8) may not both be counted.

**Topic 9: Horace, Odes, and Satire.** Latin 323 (Topic: Horace's Odes) and 323 (Topic 9) may not both be counted.

**Topic 10: Sallust.** Three lecture hours a week for one semester. Latin 323 (Topic: Sallust) and 323 (Topic 10) may not both be counted.

**Topic 11: Battle Scenes in Roman Literature.** Latin 323 (Topic: Battle Scenes Roman Literature) and 323 (Topic 11) may not both be counted.

**Topic 12: Vergil's Aeneid.** Latin 323 (Topic: Jr Rdng: Vergil's Aeneid) and 323 (Topic 12) may not both be counted.

**Topic 13: Ovid.** Latin 323 (Topic: Ovid) and 323 (Topic 13) may not both be counted.

### LAT 324. Advanced Latin Grammar and Composition.

Study of syntax, style, and principles of written composition. Three lecture hours a week for one semester. Required of all Latin majors and students seeking a secondary school teaching certificate with Latin as a teaching field. Prerequisite: Latin 322 with a grade of at least C.

### LAT 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Latin.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Classics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### LAT 365. Seminar in Latin.

Critical study of authors such as Horace, Livy, Lucretius, and Tacitus. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Latin 323 with a grade of at least C.

**Topic 1: Horace.**

**Topic 2: Lucretius.**

**Topic 4: Tacitus.**

**Topic 8: Plautus and Early Latin.** Latin 365 (Topic: Plautus and Early Latin) and 365 (Topic 8) may not both be counted.

**Topic 9: Nero.** Introduction to our most important extant sources in Latin for Nero's life and reign: the biographer Suetonius, the historian Tacitus, and the philosopher Seneca. Latin 365 (Topic: Nero) and 365 (Topic 9) may not both be counted.

**Topic 10: Seneca.** Latin 365 (Topic: Seneca) and 365 (Topic 10) may not both be counted.

**Topic 11: Intertextuality.** Discusses the development, problems, and limitations of intertextuality in Roman Literature through a core group of texts, modern and ancient, which define our approach to and practice of intertextual reading. Latin 365 (Topic: Seminar: Intertextuality) and 365 (Topic 11) may not both be counted.

**Topic 12: Epyllion and Epos.** The development of Latin epic from Catullus to Lucan. Latin 365 (Topic: Epyllion and Epos) and 365 (Topic 12) may not both be counted.

**Topic 13: Vergil's Aeneid: Research and Writing.**

### **LAT 370. Advanced Conference Course.**

Supervised reading. Conference course. May be repeated for credit. Prerequisite: Consent of instructor.

### **LAT 679H. Honors Tutorial Course.**

Supervised conference course for honors candidates in Latin. Three conference hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Latin Honors Program; for 679HB, Latin 679HA.

## **Graduate Courses**

### **LAT 380J. Proseminar in Classical Literature.**

Brief survey of the history of classical literature; orientation to the major periods and genres. Three hours a week for one semester. Designed for first-year graduate students. Prerequisite: Graduate standing.

### **LAT 180K. Proseminar.**

An introduction to the research methodology and the ancillary disciplines used in current classical studies, or to certain disciplines such as meter, textual criticism. One hour a week for one semester. Topics other than those listed below may also be taught. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**Topic 1: Research Methods in Classical Studies.** Offered on the credit/no credit basis only.

### **LAT 383. Graduate Reading.**

Topics given in recent years include Latin literature survey, Latin prose, Seneca, and Augustine's Confessions. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **LAT 383K. Current Concepts and Research in Latin.**

An overview of important theories, issues, and research in classics. Three hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **LAT 385. Studies in Classical Latin Literature.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Caesar.**

**Topic 2: Lucretius.**

**Topic 3: Ovid's Metamorphoses.**

**Topic 4: Tacitus.**

**Topic 5: Vergil's Aeneid, Books VII-XII.**

**Topic 6: Catullus.** Latin 385 (Topic 6) and 385 (Topic: The World of Catullus) may not both be counted.

**Topic 7: Vergil's Eclogues.**

### **LAT 186, 386. Conference Course in Latin Literature.**

Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **LAT 386L. Conference Course in Latin Language.**

Restricted to students pursuing degrees other than in classics. Directed reading. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **LAT 390. Seminar in Classical Studies.**

Selected topics in Roman studies. Topics given in recent years include Roman comedy, Pliny, and Roman fragmentary historians. The equivalent of three lecture hours a week for one semester. Topics other than those listed below may also be taught. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **LAT 398R. Master's Report.**

Preparation of a research report to fulfill the requirement for the master's degree. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Latin and consent of the graduate adviser.

### **LAT 398T. Supervised Teaching in Latin.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **LAT 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Legal Environment of Business Courses**

## **Legal Environment of Business: LEB**

### **Lower-Division Courses**

### **Upper-Division Courses**

#### **LEB 320F. Foundations of Business Law and Ethics.**

Restricted to non-McCombs School of Business majors. Not open to law students. Introduction to the legal problems confronting businesses in the global environment. Three lecture hours a week for one semester. Only one of the following may be counted: Legal Environment of Business 320F, 323, and 323H. Prerequisite: Forty-five semester hours of college coursework.

#### **LEB 323. Business Law and Ethics.**

Restricted to students in the McCombs School of Business. An investigation of the role of law in society; introduction to legal reasoning, dispute resolution, judicial process, constitutional law, agency, torts, government regulations; business ethics; study of contracts. Three lecture hours a week for one semester. Only one of the following may be counted: Legal Environment of Business 320F, 323, 323H. Offered on the letter-grade basis only.

#### **LEB 323H. Business Law and Ethics: Honors.**

Restricted to students admitted to the McCombs School of Business Honors Program. An investigation of the role of law in society; introduction to legal reasoning, dispute resolution, judicial process, constitutional law, agency, torts, government regulations; business ethics; study of contracts. Three lecture hours a week for one semester. Only one of the following may be counted: Legal Environment of Business 320F, 323, 323H. Offered on the letter-grade basis only. Prerequisite: Senior standing, Accounting 312H, and credit or registration for Business Administration 324H.

### **LEB 334M. Healthcare Law and Policy.**

Introduces the legal and political environment in which the U.S. health care system operates. Three lecture hours a week for one semester. Legal Environment of Business 334M and 370 (Topic: Healthcare Law and Policy) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **LEB 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in the Legal Environment of Business.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or by the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Business, Government, and Society. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

### **LEB 361. Law of Business Organizations.**

Restricted to students in a business major. Study of basic legal principles of business organizations and operations, including practical comparison and assessment of advantages and disadvantages of different types of organization. Three lecture hours a week for one semester. Prerequisite: Thirty semester hours of undergraduate coursework, or consent of instructor.

### **LEB 363. Real Estate Law.**

An examination of law pertaining to estates and interests in land, conveyances and mortgages, brokers, easements, contracts, default and foreclosure. Three lecture hours a week for one semester. Legal Environment of Business 363 and 170 (Topic 13), 270 (Topic 13), 370 (Topic 13) may not both be counted. Prerequisite: Thirty semester hours of undergraduate coursework.

### **LEB 366. Commercial Transactions.**

Restricted to students in a business major. Applied business transactions, with emphasis on the Uniform Commercial Code; emphasis on bailments, sales of goods, commercial paper, bank-customer relationships, creditor security devices, and bankruptcy. Three lecture hours a week for one semester. Prerequisite: Thirty semester hours of undergraduate coursework, or consent of instructor.

### **LEB 170, 270, 370. Topics in the Legal Environment of Business.**

Selected topics on legal constraints affecting managerial decision making and business behavior. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Thirty semester hours of undergraduate coursework; additional prerequisites vary with the topic.

**Topic 1: Antitrust Law.**

**Topic 2: Environmental Law.**

**Topic 3: Employer-Employee Relations.**

**Topic 4: Social and Ethical Responsibilities of Business.**

**Topic 5: The Law and the Multinational Corporation.**

**Topic 6: Law of the Entertainment Business.**

**Topic 7: Business Torts.**

**Topic 8: Constitutional Issues in Business.**

**Topic 9: Business Dispute Resolution.**

**Topic 10: Intellectual Property.**

**Topic 11: Sports, Sports Management, and Entertainment Law.**

Survey of the law as it relates to amateur and professional sports and sports management. Includes an entertainment law component that examines the legal aspects of the film industry.

**Topic 12: Law of the European Union.** Introduction to the rapidly evolving law of the European Union, with particular emphasis on business applications and comparisons to American law.

**Topic 13: Contracts and Real Property.** Restricted enrollment; contact the Energy Management and Innovation Center for permission to register. General real property interests, including land, mineral, and riparian interests. Subjects include duty of landowners; nonpossessory interest in real property; fixtures; liens; co-ownership of real property; the real estate contract; the broker's listing agreements; deeds; and mortgages. Legal Environment of Business 363 and 170 (Topic 13), 270 (Topic 13), 370 (Topic 13) may not both be counted. Additional prerequisite: For students not pursuing the Energy Management certificate or the Business and Public Policy certificate, consent of instructor.

**Topic 14: Oil and Gas Law.** Restricted enrollment; contact the Energy Management and Innovation Center for permission to register. Ownership interests in the oil and gas mineral estate. Subjects include conveyance and partition of the mineral estate; trespass and third party claims; and oil and gas lease provisions. Legal Environment of Business 170 (Topic 14), 270 (Topic 14), 370 (Topic 14) and 372 may not both be counted. Additional prerequisite: For non-energy management or non-public policy program students, consent of instructor.

**Topic 15: Law of Wills, Trusts, and Estates.** Restricted to students in a business major. Explore planning and management of wealth and estates through the use of wills, trusts, and gifts; intestacy, guardianships, marital property systems, and prenuptial agreements.

### **LEB 179, 379. Independent Research in the Legal Environment of Business.**

Restricted to students in a business major. Conference course. Only one of the following may be counted: Accounting 179C, 379C, Business Government and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upper-division; Legal Environment of Business 323 or 323H with a grade of at least C-; consent of instructor; and written approval before the first meeting of the course from the department chair's office, on forms provided for that purpose.

## **Graduate Courses**

### **LEB 180, 380. Topics in the Legal Environment of Business.**

Selected topics on legal constraints affecting managerial decision making and business behavior. One or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 2: Antitrust Law and Economics.** Legal regulation of anticompetitive market structures and business practices, including political, economic, and historical factors. Monopolies, mergers, horizontal and vertical restraints of trade, and price discrimination.

**Topic 3: Law of Commercial Real Estate Finance and Development.** The legal framework of commercial real estate finance and development, including basic real estate law concepts, legal aspects of financing techniques and instruments, subdivision land-use controls, environmental regulation of real estate development, and other topics.

**Topic 4: Legal and Ethical Environment of Finance.** Covers all aspects of securities regulation, including the legal responsibilities and liabilities of investment bankers, stock analysts, hedge fund managers, auditors, and other securities industry professionals; corporate disclosure requirements; public offering rules; insider

trading; mergers and acquisitions; shareholder rights; and relevant ethical and global implications.

**Topic 5: The Law and the Multinational Corporation.** Study of the legal environment in which the multinational enterprise operates, including negotiation and drafting of international contracts, international dispute resolution, expropriation, international investment regulation, letters of credit, tax havens, and cultural and ethical issues.

**Topic 6: Intellectual Property and Antitrust.** Relationships and tensions between laws designed to encourage competitive markets (antitrust laws) and those that grant limited monopolies (patents, copyrights, and trademarks).

**Topic 7: Corporation Law.** Legal framework for the formation and operation of partnerships and corporations, including limited liability partnerships and limited liability corporations; introduction to securities regulation concepts such as insider trading, mergers, and acquisitions.

**Topic 8: Legal Environment of Business.**

**Topic 9: Law of the Entertainment Business.** Legal aspects of management in the entertainment industry, including contractual and financing arrangements, licensing, and copyright.

**Topic 10: Law of Wills, Trusts, and Estates.** Planning and management of estates through the use of wills, trusts, and gifts; intestacy, guardianships, marital property systems, and prenuptial agreements.

**Topic 11: Environmental Dispute Resolution.** Theoretical and practical study of the prevention, management, and resolution of environmental disputes, such as those involving protection of endangered species, wetlands preservation, natural resource conservation, and liability for environmental damage and clean-up.

**Topic 12: Legal Regulation of Unfair Competition.** Competitive actions that violate state or federal law, such as intentional interference with the contractual relations of others, defamation in business contexts, and misappropriation of trade secrets. Ethical and international dimensions are included where appropriate.

**Topic 13: Commercial Transactions.** A comprehensive study of the legal framework for business transactions, including bailments, sales of goods, commercial paper, lender liability, bank-customer relationships, secured transactions, creditor rights, and bankruptcy.

**Topic 14: Intellectual Property.** Legal aspects of protecting intellectual property, including patents, trade secrets, trademarks, and copyrights; the contractual licensing of these property rights and other legal aspects of technology.

**Topic 16: Legal Aspects of Marketing.** State and federal laws on consumer protection, pricing (including price fixing and price discrimination), packaging, advertising, distribution, dealer control, and related topics. Ethical and international dimensions are included where appropriate.

**Topic 17: Legal and Ethical Environment of Accounting.** State and federal regulations and tort and contract law principles that constrain accountants and create potential liability. Ethical and international dimensions are included where appropriate.

**Topic 18: Products Liability.** Public policy, economics, and legal rules regarding liability for the manufacture or sale of defective products. Ethical and international dimensions are included where appropriate.

**Topic 19: Employment Law.** State and federal laws on hiring, supervising, disciplining, and terminating employees: wrongful discharge law, discrimination law, workers' compensation and employee safety laws, and several related topics. Ethical and international dimensions are included where appropriate.

**Topic 20: Creating and Enforcing Contracts.** Legal rules and practical policies on creating, monitoring, and enforcing contractual rights in a wide variety of business settings. Ethical and international dimensions are included where appropriate.

**Topic 21: Environmental Issues in Real Estate Transactions.** Federal and state environmental regulations affecting commercial real estate transactions, including the Comprehensive Environmental Response,

Compensation, and Liability ("Superfund") Act, the Clean Water Act, the Endangered Species Act, wetlands regulation, and other related topics. Ethical and international dimensions are included where appropriate.

**Topic 22: Law of Corporate Finance and Governance.** Legal rules and regulations applicable to a broad range of corporate financial issues, including agency theory, limited liability, valuation, bondholder rights, dividend policy, accountant and investment banker liability, and capital structure and leverage. Ethical and international dimensions are included where appropriate.

**Topic 23: Law of Corporate Mergers and Takeovers.** Legal rules, policies, and economics of mergers, acquisitions, hostile takeovers, leveraged buyouts, and related topics. Ethical and international dimensions are included where appropriate.

**Topic 24: Law of Real Estate Finance.** Federal and state regulation of real estate finance. Topics include creation, transfer, and discharge of mortgagor's and mortgagee's interests; mortgage substitutes; foreclosures; priority of liens; bankruptcy; and government intervention in the private mortgage market. Ethical and international dimensions are included where appropriate.

**Topic 25: Bankruptcy Law and Debtor-Creditor Relations.** The legal framework governing the rights and duties of companies, and their owners, creditors, and other stakeholders, in times of severe financial distress. Includes liquidation and reorganization proceedings in bankruptcy as well as alternatives to bankruptcy. Ethical and international dimensions are included where appropriate.

**Topic 26: Law for Entrepreneurs.** Legal issues and principles affecting the business entrepreneur, including those related to formation of the appropriate type of business organization, capitalization, protection of personal assets from business liabilities, protection of innovative ideas, hiring key personnel, and related topics. Ethical and international dimensions are included where appropriate.

**Topic 27: Cyberlaw.** Highly focused coverage of intellectual property law (copyright, trade secret, patent, trademarks, and related topics) as it relates to computer hardware and software; substantial coverage of hardware and software licensing; Internet-related legal issues; antitrust issues in the computer industry; and other topics as time permits, such as encryption, privacy, and computer-system vendor liability.

**Topic 29: Business and Public Policy.** Study of the nonmarket environment and its considerable effects on business organizations. Review of business strategies for influencing legislatures, the executive branch, court decisions, and the media.

**Topic 30: Legal Environment of Business for MPA Students.** Introduction to the legal system, with particular emphasis on its applications to the accounting profession. Additional prerequisite: Admission to the Master in Professional Accounting program.

**Topic 32: E-Commerce: Law, Policy, and Strategy.** The responsibilities of the strategist for choosing, developing, and managing an overall e-business firm strategy in uncertain legal, market, technology, and policy environments.

**Topic 33: The Legal Life Cycle of a Technology Start-up.** Comprehensive coverage of the legal issues faced by a technology start-up firm, including choice of an organizational form, employee compensation issues, negotiating real estate leases, protecting intellectual property, raising capital, and taking the firm public. Additional prerequisite: Admission to the Master of Business Administration program.

**Topic 37: Financial Crisis and Restructuring.** Studies the business and legal issues of corporate financial crises. Includes crisis simulation, moot court participation, and guest lectures by restructuring and insolvency professionals.

**Topic 38: Energy Law: Regulating Energy Production.** Examination of the federal, state, and local regulatory regimes governing the production of energy in the United States, including the licensing

regimes for electric generation (renewable, nuclear, and fossil-fueled) and the regulation of fossil fuel extraction. Discussion of the statutory regimes regulating coal mining, oil and gas production, fossil-fueled electricity generation, nuclear power plants, hydroelectric plants, and utility-scale wind and solar farms. Covers related issues, including policies aimed at hastening the decarbonization of the electricity sector in an increasing number of states and municipalities, and policy conflicts associated with the growth of hydraulic fracturing to produce oil and gas. Legal Environment of Business 180, 380 (Topic 31) and 180, 380 (Topic 38) may not both be counted.

**Topic 39: Energy Law: Regulating Energy Markets.** Examination of the regulatory regimes governing the sale and delivery of energy in American energy markets, with focus on the economic regulation of electricity, natural gas, and oil markets. Discussion of how federal and state regulatory commissions regulate price and competition in interstate markets under the Federal Power Act and the Natural Gas Act, respectively, and in intrastate markets under analogous state laws. Covers related issues, including the effects of the rapid growth in renewable generation, the move toward increasing competition and market pricing, legal rules governing the siting of natural gas and electric transmission lines, the pricing of transmission services, rules governing the development of LNG terminals, and disputes over the pricing and regulation of distributed energy resources (such as rooftop solar or demand response). Legal Environment of Business 180, 380 (Topic 31) and 180, 380 (Topic 39) may not both be counted.

### **LEB 280C. Legal Environment of Business.**

Two lecture hours a week for one semester. Prerequisite: Graduate standing.

## **Professional Courses**

# **Liberal Arts Courses**

## **Liberal Arts: L A**

### **Lower-Division Courses**

#### **L A 101L, 301L, 601L. Introduction to the Liberal Arts.**

Topics related to exploring the various disciplines in the College of Liberal Arts. For each semester credit hour, one lecture hour a week for one semester. May be repeated for credit when the topics vary.

#### **L A 101M. Liberal Arts to Career.**

One lecture hour a week for one semester. Only one of the following may be counted: Liberal Arts 101L (Topic: Liberal Arts Major in the Workplace), 101M, Liberal Arts Honors 104H. Offered on the letter-grade basis only. Prerequisite: Thirty semester hours of coursework.

#### **L A 101P. Creating Your Academic Pathway.**

Restricted to first-year students. Focuses on opportunities within the College of Liberal Arts, academic success, extracurricular support, and professional development. One lecture hour a week for one semester. Liberal Arts 101L (Topic: Liberal Arts Pathways/Planning) and 101P may not both be counted. Offered on the pass/fail basis only.

#### **L A 001Q. First-Year Seminar.**

Restricted to first-year students. One discussion hour a week for one semester. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in Liberal Arts 101P.

#### **L A 302. Critical Thinking Seminar.**

An examination of fundamental concepts in critical thinking, including the role of intellectual virtues, an analysis of the elements of thought, Socratic thinking, and the application of universal intellectual standards. Three lecture hours or two lecture hours and one discussion hour a week

for one semester. Liberal Arts 302 and Natural Sciences 302 may not both be counted. May not be repeated for credit.

#### **L A 002F. Foundation Scholars Program Seminar.**

Restricted to students in the Foundation Scholars Program. One lecture hour a week for one semester.

#### **L A 002P. Path to Admission through Co-Enrollment (PACE) Workshop.**

Restricted to first-year students in the Path to Admission through Co-Enrollment (PACE) program. Provides guidance to first-year students in the Path to Admission through Co-Enrollment (PACE) program. One lecture hour a week for one semester.

#### **L A 104R. Community Service.**

Restricted to recipients of the Rapoport Service Scholarship. Tutorial course, in which students submit reports based on service learning and appropriate supplementary reading. The equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

**Topic 1: Leadership, Ethics, and Society.**

**Topic 2: Civic Engagement and Civic Responsibility.**

#### **L A 110. Internship.**

Restricted to students in the College of Liberal Arts. Students work in a professional environment and apply analysis, communication, and other academic skills to practical work. The equivalent of one lecture hour and ten hours of fieldwork a week for one semester. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Completion of at least thirty semester hours of coursework, a University grade point average of at least 2.25, and consent of instructor.

#### **L A 112C, 212C. Topics in Community Engagement.**

One or two lecture hours and five to seven community engagement hours a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

#### **L A 113P, 213P. Topics in Peer Mentoring.**

One or two lecture hours and five to seven mentoring hours a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

#### **L A 117. Strategies in Critical Thinking for Success.**

Introduction to strategies that enable well-informed decisions for success in college and beyond. One lecture hour a week for one semester. Liberal Arts 101L (Topic: Success Strat: Crit Thinking) and 117 may not both be counted.

#### **L A 119, 219, 319. International Learning Seminars.**

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Liberal Arts 119, 219, 319 and Undergraduate Studies 119 may not both be counted unless the topics vary. Liberal Arts 119, 219, 319 and 129, 229, 329 may not both be counted. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## **Upper-Division Courses**

#### **L A 320, 620. Internship.**

Designed to establish the academic foundations of an internship course in the liberal arts. Students integrate knowledge derived from their academic studies with the experiences gained in an internship setting. For each semester hour of credit earned, the equivalent of one lecture

hour a week for one semester with additional hours to be arranged. May be repeated for credit. Prerequisite: Completion of at least thirty semester hours of coursework, a University grade point average of at least 2.25, and consent of instructor.

#### **L A 320J. Jewish Studies Internship.**

The equivalent of three lecture hours and ten internship hours a week for one semester. May be repeated twice for credit. May be repeated for credit. Prerequisite: Thirty semester hours of coursework and consent of the director of Liberal Arts Career Services.

#### **L A 220L, 320L, 420L, 520L, 620L. Military Leadership Internship.**

Restricted to students participating in an approved ROTC program. Field leadership training program. For each semester hour of credit earned, one week of full-time fieldwork. Some programs may also require classroom hours. Offered during the summer session only. No more than six semester hours of this course may be counted toward any degree. Offered on the pass/fail basis only. Prerequisite: Upper-division standing.

#### **L A 321, 621. International Internship.**

Restricted to students participating in a study abroad program. For every hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Upper-division standing.

#### **L A 321F. French Studies Internship.**

Restricted to students pursuing a French Studies major. The equivalent of three lecture hours a week for one semester. Prerequisite: Thirty semester hours of coursework and consent of the director of Liberal Arts Career Services.

#### **L A 321J. Italian Studies Internship.**

Restricted to students pursuing a major in Italian Studies. The equivalent of three lecture hours a week for one semester. Prerequisite: Thirty semester hours of coursework and consent of the director of Liberal Arts Career Services.

#### **L A 321M. Health and Society Internship.**

Restricted to health and society majors. The equivalent of three lecture hours a week for one semester. Prerequisite: Thirty semester hours of coursework and consent of the director of Liberal Arts Career Services.

#### **L A 321S. Security Studies Internship.**

Restricted to students pursuing a Security Studies certificate. Three lecture hours a week for one semester. Prerequisite: Thirty semester hours of coursework and consent of the director of Liberal Arts Career Services.

#### **L A 125, 225, 325. Topics in the Liberal Arts.**

Analysis of topics in the philosophy and real-life application of the liberal arts. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Additional meeting times may be required. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing. Additional prerequisites vary with the topic.

#### **L A 129, 229, 329. International Learning Seminars.**

Restricted to students participating in a study abroad program. Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Liberal Arts 129, 229, 329 and Undergraduate Studies 119 may not both be counted unless the topics vary. Liberal Arts 119, 219, 319 and 129, 229, 329 may not both be counted. May be

repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

#### **L A 131R, 231R, 331R. Research Internship.**

Restricted to students in the College of Liberal Arts. For every semester hour of credit earned, three hours of fieldwork a week for one semester. May be repeated for credit, but no more than six hours may be counted toward degree requirements. Prerequisite: Upper-division standing, a grade point average of at least 2.50, and written consent of instructor.

#### **L A 340. Leadership and Urban Engagement.**

Same as Communication 340, Fine Arts 345, and Management 340. Restricted to students accepted to the UT in New York Program. Explore leadership skills and goals in the urban context. Read and discuss leadership challenges that arise when stakeholders come together to plan, make decisions, and take action in organizational and community settings. Three lecture hours a week for one semester. Only one of the following may be counted: Communication 340, Fine Arts 345, Liberal Arts 325 (Topic: Leadership/Urban Engagement), 340, Management 340. Prerequisite: Upper-division standing.

### **Graduate Courses**

#### **L A 380L. Liberal Arts: Methods for the 21st Century.**

Offer skills-based training for students at different stages of their programs. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; additional prerequisites may vary with the topic.

#### **L A 381. Liberal Arts: Advanced Methods.**

Offers skills-based training for students at different stages of their program. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites may vary with the topic.

#### **L A 187, 387. Graduate Internship.**

For each semester hour of credit earned, the equivalent of one lecture hour and five to ten internship hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, eighteen hours of graduate coursework, and consent of the graduate adviser.

### **Professional Courses**

## **Liberal Arts Honors Courses**

### **Liberal Arts Honors: LAH**

#### **Lower-Division Courses**

##### **LAH 101. The Idea of Reacting to the Past.**

Restricted to students in the Liberal Arts Honors Program and Plan II. Develop skills in public speaking, debate, critical thinking, research and writing using historically-based perspectives through role play. The equivalent of one lecture hour a week for one semester.

##### **LAH 102H, 202H, 302H. The Idea of the Liberal Arts.**

Restricted to students in the Freshman Honors Program in the College of Liberal Arts. An overview of the liberal arts disciplines. One, two, or three class hours a week for one semester. Additional hours may be required. Offered on the letter-grade basis only.

##### **LAH 103H. The Ideas of Civic Engagement.**

Restricted to students in the Liberal Arts Honors Program in the College of Liberal Arts. Introduces Liberal Arts Honors students to the resources of the University, their history, and how to make best use of them. Provides guidance on internships, scholarships, and career paths,

encouraging students to prepare for a lifetime of civic engagement and public service. One lecture hour a week for one semester, with additional hours to be arranged Humanities 116 and Liberal Arts Honors 103H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Liberal Arts Honors 102H.

#### **LAH 104H. Professionalization and Career Development.**

Restricted to students in the Liberal Arts Honors Program in the College of Liberal Arts. Introduction to the ideas, concepts, and best practices of career development, professionalization and professional online brand management. Provides guidance on internships and career paths working in conjunction with Liberal Arts Career Services. One and one-half lecture hours a week for one semester. Liberal Arts 101M and Liberal Arts Honors 104H may not both be counted. Offered on the letter-grade basis only.

#### **LAH 305. Liberal Arts Freshman Honors Seminar.**

Restricted to students in the Freshman Honors Program in the College of Liberal Arts. Intensive small class lecture or seminar course addressing basic issues in various liberal arts disciplines. Lectures, readings, discussions, examinations. Three lecture hours a week for one semester. Humanities 305 and Liberal Arts Honors 305 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

**Topic 1: Reacting to the Past.** Liberal Arts Honors 305 (Topic 1) and 305 (Topic: Reacting to the Past) may not both be counted. Offered on the letter-grade basis only.

#### **LAH 112H. The Nature of Inquiry.**

Designed for students who plan to enter a liberal arts departmental honors program. Introduction to the nature of research in liberal arts disciplines. One and one-half class hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Forty-five semester hours of coursework and consent of the liberal arts honors director.

#### **LAH 318Q. Supervised Research.**

Individual instruction. Prerequisite: Consent of the liberal arts honors program adviser.

### **Upper-Division Courses**

#### **LAH 340L. Legal Internships.**

Restricted to Plan I majors in the College of Liberal Arts who are participants in the Liberal Arts Honors Scholars Program. Explore the role of lawyers and how the practice of law has shaped American society. Intern in law offices or legal settings. Gain practical experience and first-hand knowledge of different legal fields. Internships help shape classroom discussions. Examine the practice of law and how lawyers serve the public interest and larger society. The equivalent of three lecture hours a week for one semester with an addition 9-10 internship hours a week for one semester. Liberal Arts Honors 340L and 350 (Topic: Legal Internships and the Law) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, cumulative grade point average of at least 3.25.

#### **LAH 340M. Business Consulting Internship.**

In a classroom setting, explore and discuss the role of consultants in the business world and how both have shaped American society. Discuss hands-on experience from internships in the classroom. One lecture hour and ten internship hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, and a cumulative grade point average of at least 3.25.

#### **LAH 340N. Nonprofit Management Internship.**

In a classroom setting, explore the role of non-profit organizations and how they have shaped American society. Discuss hands-on experience from internships in the classroom. One lecture hour and ten internship hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, and a cumulative grade point average of at least 3.25.

#### **LAH 340P. Public Health Internship.**

In a classroom setting, explore the role of public health organizations and how they have shaped American society. Discuss hands-on experience from internships in the classroom. One lecture hour and ten internship hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, and a cumulative grade point average of at least 3.25.

#### **LAH 340Q. Technical Writing and Social Media Internship.**

In a classroom setting, explore the expanding role of social media and technical writing in society and how both have shaped American society. Discuss hands-on experience from internships in the classroom. One lecture hour and ten internship hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, and a cumulative grade point average of at least 3.25.

#### **LAH 149. Scholars Honors Capstone.**

Produce a paper that reflects upon the student's academic enrichment experiences and how it impacted their views and career goals. The equivalent of one lecture hour a week for one semester. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, and a cumulative grade point average of at least 3.25.

#### **LAH 350. Topics in the Liberal Arts.**

Restricted to Plan I majors in the College of Liberal Arts. Intensive lecture course treating topics from a variety of disciplinary perspectives, taught by instructors from various departments. Lectures, readings, discussions, examinations. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

**Topic 1: Defense Policy.** Articulation of national security strategy through decisions about Department of Defense organization and resources. Overview of military terms and organizing principles with an emphasis on policy, personnel, acquisition, budget, intelligence, and leadership. Only one of the following may be counted: Government 360N (Topic: Defense Policy), Liberal Arts Honors 350 (Topic: Defense Policy), 350 (Topic 1), Public Affairs 325 (Topic: Defense Policy).

**Topic 2: Our Lives In Fiction.** Examines the hypothesis that human beings have and continue to create and recreate themselves through the telling of stories. Explores the concept that stories help define what is significant, what is praiseworthy, and what it is we should value and why. Only one of the following may be counted: Core Texts and Ideas 345 (Topic: Our Lives in Fiction), Liberal Arts Honors 350 (Topic: Our Lives in Fiction), 350 (Topic 2).

**Topic 3: Technical Change and Financial Crisis.** Explores the economics of the business firm, the management of technical change, and the interaction between technology and finance in the writings of major twentieth century economists. Emphasis on attempting to understand the social and income-distributional consequences of technical change, the potential for system instability, and the dilemmas of public policy in this area. Liberal Arts Honors 350 (Topic: Technical Change and Financial Crisis) and 350 (Topic 3) may not both be counted.

**Topic 4: Literature of World War I.** Same as Humanities 350 (Topic 10). Selected readings from autobiographies, poetry, fiction, and memoirs,

primarily about the Western Front, by German, British, and American authors; a short history of World War I; readings of a central book of literary analysis; exploration of the nature of war, the experience of combatants, and the legacy of the war itself and its unique literature. Only one of the following may be counted: Humanities 350 (Topic: Literature of the Great War), 350 (Topic 10), Liberal Arts Honors 350 (Topic: Literature of the Great War), 350 (Topic 4).

**Topic 5: Modern Masters of the Novel.** An examination of a range of subjects and styles that distinguish the capacity of the novel to reflect private lives and public moments. Focuses on nineteenth and twentieth century British and American novelists such as George Eliot, Philip Roth, Ford Maddox Ford, and Graham Greene. Only one of the following may be counted: Humanities 350 (Topic: Novels of Distinction), Liberal Arts Honors 350 (Topic: Novels of Distinction), 350 (Topic 5).

**Topic 6: Documentary Film and Inquiry.** Examines how narrative accounts such as documentary film, biography, or other non-fiction work impact the interpretation of significant events. A component of the class includes individual or collaborative research on a chosen topic and presentation of a life history project via a narrative description, video, photography, or other medium. Only one of the following may be counted: Educational Psychology 369K (Topic: Life History and Documentary Approaches to Inquiry), Liberal Arts Honors 350 (Topic: Life History and Documentary Approaches to Inquiry), 350 (Topic 6).

**Topic 7: Power and Belief in Early Modern Europe.** The historical and cultural processes that lead people to change the way they look at the world, and also brought some early modern Europeans to argue for religious toleration - first as a practical matter, and eventually as a matter of principle. Only one of the following may be counted: History 350L (Topic: Spinoza's World), Liberal Arts Honors 350 (Topic: Spinoza's World), 350 (Topic 7).

**Topic 8: The Decolonization of the British Empire.** Explores the era of decolonization of the British empire after World War II. Only one of the following may be counted: History 350L (Topic: Decolonization of British Empire), 350L (Topic 69), Liberal Arts Honors 350 (Topic: Decolonization of British Empire), 350 (Topic 8).

**Topic 9: Getting it in Writing.** An exploration of nonfiction writing and the process of translating facts, ideas, and experiences into words. Liberal Arts Honors 350 (Topic: Getting it in Writing) and 350 (Topic 9) may not both be counted.

**Topic 10: In Search of Meaning.** Restricted to Plan I majors in the College of Liberal Arts. The concepts will include: monotheism, the nature and personality of this god, the soul, chosen people, linear time, history as divine classroom, original sin, heaven, hell, salvation, etc. Establish how and when these and a host of other features came into existence and created Judeo-Christian reality, and contrast the reality created therein with other realities—Hinduism, Buddhism, Confucianism, Islam. Only one of the following may be counted: Humanities 350 (Topic: In Search of Meaning), 350 (Topic: The Quest for Meaning), 350 (Topic 6), Liberal Arts Honors 350 (Topic: In Search of Meaning), 350 (Topic 10). Prerequisite: Upper-division standing and a University grade point average of at least 3.50.

**Topic 11: Rhetoric of Great Speeches.** Exploration of the nature and history of rhetoric and analysis of some of the great speeches of the Western tradition. Liberal Arts Honors 350 (Topic: Rhetoric of Great Speeches) and 350 (Topic 11) may not both be counted.

**Topic 12: Technologies of the Book.** Examines the technologies that enabled the book and explores its impact on society, with particular attention paid to the printed book that has flourished since the mid-fifteenth century. Explores the technologies of production and manufacture, and those that enabled the creation of texts by authors and their distribution and reception, and considers the future of the book in today's society. Only one of the following may be counted:

Information Studies 350E (Topic: Technologies of the Book), Liberal Arts Honors 350 (Topic: Technologies of the Book), 350 (Topic 12).

**Topic 13: Writing Nonfiction.** Restricted to Plan I majors in the College of Liberal Arts. The craft of writing profiles, narratives, and essays. Concentration on the fundamental components of nonfiction: beginnings, organization, character development, narrative flow, and conclusions. Only one of the following may be counted: Liberal Arts Honors 350 (Topic: Writing Nonfiction), 350 (Topic 13), Tutorial Course 325 (Topic: Writing Nonfiction).

**Topic 14: Money in American Politics.** Restricted to Plan I majors in the College of Liberal Arts. Explores the nature and consequences of money in American politics. Only one of the following may be counted: Government 379S (Topic: Money in Politics), Humanities 350 (Topic: Money in Politics), Liberal Arts Honors 350 (Topic: Money in Politics), 350 (Topic 14).

**Topic 15: History at Play.** Restricted to Plan I majors in the College of Liberal Arts. Explores the great religious, political, and cultural debates that occurred around two historic events: England's break with the Catholic Church in 1536 and India gaining independence from Britain in 1947. Liberal Arts Honors 350 (Topic: History at Play II) and 350 (Topic 15) may not both be counted.

**Topic 16: Psychology and Religion in Modern American Culture.** Explores the historical, religious, and psychotherapeutic manifestations of the "search for meaning" in modern American culture. Examines theology, psychological theory, literature, music, politics, and art. Only one of the following may be counted: Jewish Studies 364 (Topic: Psychology and Religion in Modern American Culture), Liberal Arts Honors 350 (Topic: Psychology and Religion in Modern American Culture), and 350 (Topic 16).

**Topic 17: Race and Medicine in American Life.** Restricted to Plan I majors in the College of Liberal Arts. Only one of the following may be counted: Liberal Arts Honors 350 (Topic: Race and Medicine in American Life), 350 (Topic 17), Tutorial Course 357 (Topic: Race and Medicine in Amer Life).

**Topic 18: The Johnson Years.** Same as Humanities 351C. Restricted to Plan I majors in the College of Liberal Arts. Three lecture hours a week for one semester. Only one of the following may be counted: Humanities 350 (Topic: Johnson Years), 351C, Liberal Arts Honors 350 (Topic: Johnson Years), 350 (Topic 18). Additional prerequisite: Upper-division standing and a grade point average of at least 3.50.

**Topic 19: British History, Literature, and Politics.** Same as History 366N (Topic 17). Restricted to Plan I majors in the College of Liberal Arts. Reading course in history, literature, and politics, and as a class in professional writing. Examines not only the literature, history, and politics of England, Wales, Scotland, and Ireland, but also the interaction of British and other societies throughout the world. Only one of the following may be counted: History 366N (Topic: British History, Literature and Politics), 366N (Topic 17), Liberal Arts Honors 350 (Topic: British History, Literature and Politics), 350 (Topic 19), Tutorial Course 325 (Topic: British History, Literature and Politics). Additional prerequisite: Grade point average of at least 3.50.

**Topic 21: Inequality in the United States Educational System.** Same as Sociology 345D. Restricted to Plan I majors in the College of Liberal Arts. Examine how inequality has developed and is maintained within the American public education system. Three lecture hours a week for one semester. Only one of the following may be counted: Liberal Arts Honors 350 (Topic: Inqlyt in US Edu Sys), 350 (Topic 21), Sociology 321K (Topic: Inqlyt in US Edu Sys), 345D. Additional prerequisite: Upper-division standing and a grade point average of at least 3.50.

**Topic 22: Leadership Strategy In Sports.** Liberal Arts Honors 350 (Topic: Leadership Strategy in Sports) and 350 (Topic 22) may not both be counted.

**Topic 23: The Human Place in Nature.** Liberal Arts Honors 350 (Topic: Human Place in Nature) and 350 (Topic 23) may not both be counted.

**Topic 24: The Paper Chase: Law School and the Life of the Law.**

Liberal Arts Honors 350 (Topic: PAPER CHASE: LAW SCHL, LIFE) and 350 (Topic 24) may not both be counted.

**Topic 27: Sicily: Myth, Reality, and Mafia.** Examine the artistic traces left in Sicily by Greek, Roman, Arab, Norman, and Spanish civilizations and how they contributed to create the present Sicilian reality. Liberal Arts Honors 350 (Topic: Sicily: Myth/Reality/Mafia) and 350 (Topic: 27) may not both be counted.

**Topic 28: Treasure Hunt Archival Research.** Same as Humanities 350 (Topic 13). Discover, explore and identify the boundless treasures that can be found on the University of Texas Austin campus as you hunt through the vast cultural and historical collections at the archives on campus including the Harry Ransom Center, the Dolph Briscoe Center for American History, and the LLILAS Benson Latin American Collection. Explore essential skills for pursuing original research projects in humanities disciplines and apply these skills to bring public attention to hidden histories and marginalized voices in American culture. Only one of the following may be counted: Humanities 350 (Topic: Treasure Hunt HRC Arch Rsch), 350 (Topic 13), Liberal Arts Honors 350 (Topic: Treasure Hunt HRC Arch Rsch), 350 (Topic 28).

**Topic 29: David Foster Wallace.** Only one of the following may be counted: English 349S (Topic: David Foster Wallace), 349S (Topic 14), Liberal Arts Honors 350 (Topic: David Foster Wallace), 350 (Topic 29).

**Topic 30: Paradise Lost: Reception History.** Only one of the following may be counted: English 350M (Topic: Paradise Lost/Its Receptn), 351P, Liberal Arts Honors 350 (Topic: Paradise Lost/Its Reception), 350 (Topic 30).

**Topic 31: Immigration Literature.** Only one of the following may be counted: English 343I, 376M (Topic: Immigration Literature), 376M (Topic 10), Liberal Arts Honors 350 (Topic: Immigration Literature), 350 (Topic 31).

**Topic 32: Literature, Cultural Memory, and the American Civil War.** Examines the American Civil War not in terms of its military or political history but in relation to the ways literary and cultural texts have remembered and rewritten it. Only one of the following may be counted: English 350R (Topic 3), Liberal Arts Honors 350 (Topic: Am Lit/Cul/The Civil War), 350 (Topic 32).

**LAH 351C. African American Family in Historical and Contemporary Contexts.**

Same as African and African Diaspora Studies 351R and Sociology 325F. Restricted to Plan I majors in the College of Liberal Arts. Examine how African Americans managed to maintain a sense of family from the time of slavery to the present trend of mass incarceration. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372D (Topic: Afr Am Fam: Hist/Contem Contxt), 351R, Liberal Arts Honors 350 (Topic: Afr Am Fam: Hist/Contem Cntxt), 351C, Sociology 321K (Topic: Afr Am Fam: Hist/Contem Cntxt), 325F. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

**LAH 351D. Ethical Issues in Medicine and Society.**

Restricted to Plan I majors in the College of Liberal Arts. Explore, analyze, and evaluate health and health care in the twenty-first century. Examine the social factors at play in relation to disease and illness, the rise of the medical-industrial complex, and how the issues of power underlie ethical dilemmas in both medicine and society. Three lecture hours a week for one semester. Liberal Arts Honors 350 (Topic: Ethical Issues/Med/Society) and 351D may not both be counted. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

**LAH 351E. Gender Equality in World Development.**

Restricted to Plan I majors in the College of Liberal Arts. Examine the causes and consequences of gender equality and inequality in the world.

Identify where the most and least progress has occurred for gender equality. Analyze the causal links between women's empowerment and development. Three lecture hours a week for one semester. Liberal Arts Honors 350 (Topic: Gender Equality/World Devel) and 351E may not both be counted. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

**LAH 351F. Philanthropy and Nonprofit Organizations.**

Restricted to Plan I majors in the College of Liberal Arts. Examine the scope and diversity of the nonprofit sector, as well as individual patterns of giving and volunteering. Focus on the tools and skills needed to evaluate charitable programs for effectiveness using social scientific techniques. Three lecture hours a week for one semester. Liberal Arts Honors 350 (Topic: Philanthropy/Nonprofit Orgs) and 351F may not both be counted. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

**LAH 351G. Reacting to Revolutionary Ideas.**

Restricted to Plan I majors in the College of Liberal Arts. Explore revolutionary themes in Western and non-Western countries during the nineteenth and twentieth centuries. Three lecture hours a week for one semester. Liberal Arts Honors 350 (Topic: Reacting/Revolutionary Ideas) and 351G may not both be counted. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

**LAH 351J. Regime Perspectives on American Politics.**

Same as Core Texts and Ideas 326R and Government 379C. Explore American politics and culture and examine how the parts of America fit together as a whole. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 326R, 335 (Topic: Regime Persp Amer Poltc-Honors), Government 379C, 379S (Topic 3), Liberal Arts Honors 350 (Topic: Regime Persp on Amer Politics), 351J. Prerequisite: Upper-division standing, six semester hours of government coursework, and a grade point average of at least 3.50.

**LAH 351K. Citizenship in Democratic Politics.**

Same as Government 379D. Examine the role of ordinary citizens in democratic politics. Three lecture hours a week for one semester. Only one of the following may be counted: Government 379D, 379S (Topic: Citizens in Democratic Pol-Hon), Liberal Arts Honors 350 (Topic: Citizens in Democratic Pol), 351K. Prerequisite: Upper-division standing, six semester hours of coursework in Government, and a grade point average of at least 3.50.

**LAH 351L. Homer and Plato.**

Same as Government 379E. Examine the works of Homer and Plato. Explore the ideas of human nature, existence, leadership, courage, honor, ambition, justice, necessity, fate, divine power, human freedom, and moral responsibility. Three lecture hours a week for one semester. Only one of the following may be counted: Government 379E, 379S (Topic: Homer and Plato-Honors), Liberal Arts Honors 350 (Topic: Homer and Plato), 351L. Prerequisite: Upper-division standing, six semester hours of lower-division coursework in government, and a grade point average of at least 3.50.

**LAH 351M. Jerusalem and Athens.**

Same as Core Texts and Ideas 330J and Government 379G. Examine the age-old confrontation between the teaching of the Bible and the politics and philosophy of the ancient Greeks. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 330J, 335 (Topic: Jerusalem and Athens-Honors), 375 (Topic: Jerusalem and Athens-Honors), Government 379G, 379S (Topic: Jerusalem and Athens-Honors), 379S (Topic 4), Liberal Arts Honors 350 (Topic: Jerusalem and Athens), 351M. Prerequisite: Upper-division

standing, six semester hours of coursework in government, and a grade point average of at least 3.50.

#### **LAH 351O. Data Analytics In Contemporary Society.**

Restricted to Plan I majors in the College of Liberal Arts. Investigate the influence of data analytics in contemporary society. Explore how data is generated and presented in popular, scholarly, and other forms of media. Three lecture hours a week for one semester. Liberal Arts Honors 350 (Topic: Data Analytics, Contemp Soc) and 351O may not both be counted. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

#### **LAH 351P. Machiavelli: Politics and Culture.**

Through Niccolo Machiavelli's chief writings, consider the local, regional, Mediterranean, European, and global aspects of his work. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Machiavelli), 330 (Topic 6), Core Texts and Ideas 330M, 375 (Topic: Machiavelli), European Studies 346 (Topic: Machiavelli), History 344R, 350L (Topic: Machiavelli), Liberal Arts Honors 350 (Topic: Machiavelli), 351P, Religious Studies 357 (Topic: Machiavelli), 357C. Prerequisite: Upper-division standing and grade-point average of at least 3.50.

#### **LAH 351Q. Holocaust Aftereffects.**

Restricted to Plan I majors in the College of Liberal Arts. Explore the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 40), European Studies 346 (Topic 23), German, Scandinavian, and Dutch Studies 360 (Topic 1), Jewish Studies 365 (Topic 14), Liberal Arts Honors 350 (Topic: Holocaust Aftereffects), 351Q, Religious Studies 357 (Topic 18), 357V, Women's and Gender Studies 340 (Topic: Holocaust Aftereffects), 340 (Topic 66). Prerequisite: Upper-division standing and a grade point average of at least 3.50.

#### **LAH 351S. Interpreting Black Rage.**

Restricted to Plan I majors in the College of Liberal Arts. Examine the residual effects of slavery and its impact on race relations in the United States. Explore Black rage in literature, music, and film. Three lecture hours a week for one semester. Liberal Arts Honors 350 (Topic: Interpreting Black Rage) and 351S may not both be counted. Prerequisite: Upper-division standing with a grade point average of at least 3.50.

#### **LAH 351T. Jewish Identities in the Americas.**

Restricted to Plan I majors in the College of Liberal Arts. Examine the work of Jewish creative intellectuals from the United States, Latin America, and Canada from a comparative perspective. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic: Jewish Identities: Americas), Jewish Studies 363 (Topic 27), Liberal Arts Honors 350 (Topic: Jewish Identities: Americas), 351T. Prerequisite: Upper-division standing and grade-point average of at least 3.50.

#### **LAH 351W. Hitler, Nazism, and World War II.**

Same as History 376G. Restricted to students in the Normandy Scholars Program. Three lecture hours a week for one semester, and approximately three weeks of study in France. Only one of the following may be counted: History 376G, Liberal Arts Honors 350 (Topic: Hitler, Nazism, & World War II), 351W. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

#### **LAH 352C. Germany in the Twentieth Century.**

Same as History 337N and Russian, East European, and Eurasian Studies 335 (Topic 11). Survey of German political and military institutions, economic development, culture, and society. Three lecture hours a week for one semester. Only one of the following may be counted: History 337N, Liberal Arts Honors 350 (Topic: Germany in the 20th Century), 352C, Russian, East European, and Eurasian Studies 335 (Topic 11). Prerequisite: Upper-division standing and a grade point average of at least 3.5.

#### **LAH 352D. Dedman Scholars Seminar.**

Travel abroad to study the history, culture and politics of different regions across the world under the direction of various academic departments of the University. The equivalent of three lecture hours a week for one semester. Liberal Arts Honors 350 (Topic: Dedman Scholars Maymester) and 352D may not both be counted. Prerequisite: Consent of the department.

#### **LAH 352E. Language Truths, Myths, and Mysteries.**

Restricted to Plan I majors in the College of Liberal Arts. Explore an introductory characterization of language and linguistics. Identify long-lasting controversial issues and common viewpoints about language and puzzling real-life language-related phenomena. Analyze these issues through a reasoned, rigorous confrontation of facts and fallacies with the objective of competently articulating defensible conclusions. Three lecture hours a week for one semester. Liberal Arts Honors 350 (Topic: Lang Truths Myths Mysteries) and 352E may not both be counted. Prerequisite: Upper division standing and a grade point average of at least 3.50.

#### **LAH 352I. Image of the Cannibal in the Renaissance.**

Three lecture hours a week for one semester. Only one of the following may be counted: English 350E (Topic: Cannibal Renaissance-Honors), 375R, Liberal Arts Honors 350 (Topic: Cannibal Renaissance), 352I. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

#### **LAH 352J. Global Sustainability and Soil.**

Same as Geography 349S. Restricted to Plan I majors in the College of Liberal Arts. Examine soil as a resource from the perspectives of natural and sustainability science, including soil ecology and biodiversity, formation, fertility for ecosystems and farming systems, soil health, distinguishing characteristics in nature, taxonomy, and soil spatial variability around the globe. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 349S, 356 (Topic: Global Sustainbilty/Soil-Hon), Liberal Arts Honors 350 (Topic: Global Sustainability/Soil), 352J. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Geography 401C, and a cumulative grade point average of at least 3.25.

#### **LAH 358Q. Supervised Research.**

Individual instruction. May be repeated for credit, but no more than six semester hours may be counted toward College Honors. Prerequisite: A University grade point average of at least 3.50 and consent of the liberal arts honors program adviser.

#### **LAH 364H. The Enlightenment.**

Restricted to Plan I majors in the College of Liberal Arts. Examination of the European Enlightenment, an intellectual movement centered in eighteenth-century France and England that cut across all disciplines and arts and that looked back to the Renaissance and forward to the modern world. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **LAH 365P. Honors Seminar in Political Theory.**

Restricted to Plan I majors in the College of Liberal Arts. An in-depth study of selected texts, authors, or themes in the history of political thought from ancient times to the present. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; six hours of any the following: Core Texts and Ideas 302, 303, Government 312P, 335M, 351C, 351D, 351E, 351G, 351J, 351L, 379S (Topic 3), 379S (Topic 4); a grade point average of at least 3.5.

### **LAH 368H. Literature of the Hispanic World.**

Restricted to Plan I majors in the College of Liberal Arts. An examination of the literature and culture of Spain and Spanish America, from the Middle Ages to the present. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **LAH 369H. Comparative Legal Systems.**

Restricted to Plan I majors in the College of Liberal Arts. A comparison of legal traditions from Europe, English common law, and Asia. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **LAH 370H. The Birth of the Modern World, 1400-1700.**

Restricted to Plan I majors in the College of Liberal Arts. An interdisciplinary course on European culture during the age of the Renaissance and Reformation. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **LAH 371H. Classics of Greek Philosophy.**

Restricted to Plan I majors in the College of Liberal Arts. A close reading of major works in the philosophy of Plato and Aristotle, supported by background reading in the history and literature of ancient Greece. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **LAH 373H. Literature of the Western World: Continuities.**

Restricted to Plan I majors in the College of Liberal Arts. Tradition and innovation of form and thought in literature from Homer to the twentieth century. Three lecture hours and one discussion hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **LAH 376H. The Rise of Modern America.**

Restricted to Plan I majors in the College of Liberal Arts. The end of Reconstruction (1877) to the end of the war in Vietnam (1975)—industrialization, urbanization, immigration, nuclear energy, and global reach. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **LAH 377H. Ideas of the Twentieth Century.**

Restricted to Plan I majors in the College of Liberal Arts. Central philosophical controversies of the twentieth century: ethics, politics, comparative religions, science and human nature. Three lecture hours and one discussion hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **LAH 378H. The Natural Sciences in the Liberal Arts Context.**

Restricted to Plan I majors in the College of Liberal Arts. An attempt to understand contemporary developments in science by focusing on the history and philosophy of science. Three lecture hours a week for one

semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **LAH 379H. Classical Asian Civilizations.**

Restricted to Plan I majors in the College of Liberal Arts. An examination of the contributions of India and China to intellectual history. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **LAH 679T. Honors Thesis.**

Restricted to Plan I majors in the College of Liberal Arts. Supervised research, reading, and writing of a substantial paper on an interdepartmental subject. Conference course for two semesters. Offered on the letter-grade basis only. Prerequisite: For Liberal Arts Honors 679TA, upper-division standing, a grade point average of at least 3.50, and written consent of the director of the Liberal Arts Honors Program; for 679TB, Liberal Arts Honors 679TA.

## **Graduate Courses**

## **Professional Courses**

# **Linguistics Courses**

## **Linguistics: LIN**

### **Lower-Division Courses**

#### **LIN 306. Introduction to the Study of Language.**

Survey of major areas of linguistics: sound systems, grammatical structures, historical development of languages, language families and linguistic universals, dialect differences and their social significance. Three lecture hours a week for one semester.

#### **LIN 312. Interdisciplinary Approaches to Language.**

An interdisciplinary and multidisciplinary introduction to the manifold aspects of language. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **LIN 312C. Culture and Communication.**

Same as Anthropology 307. An introduction to the study of culture through communication and the theory of signs. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Anthropology 307, Linguistics 312 (Topic: Culture and Communication), 312C.

#### **LIN 312D. Languages around the World.**

Explores the language families of the world. Considers such questions as: what does it mean for languages to be related, and how do we know that they are related in the first place; why are there only a handful of language families in Europe and Africa while there are scores in South America and New Guinea; What can we say about where a language or language family may have originated; and how much living history is being lost as languages become endangered or extinct when people stop speaking them? Three lecture hours a week for one semester. Linguistics 312 (Topic: Languages Around the World) and 312D may not both be counted.

#### **LIN 312E. Language of Sign and Gesture.**

Explores how language, a faculty that arises in the brain, is expressed by the body, both for spoken languages (via the vocal tract) and for signed languages (via the hands and face). Also includes an examination of how language, a special cognitive faculty unique to humans, intersects and overlaps with other communication systems, with a focus on gesture, the nonlinguistic communicative systems used by humans and some nonhuman species. Three lecture hours a week for one semester.

Linguistics 312 (Topic: Language in the Body) and 312E may not both be counted.

### **LIN 312F. Bilingualism in the Americas.**

Same as Mexican American Studies 309. Analyze the linguistic, cognitive, social, and cultural aspects of bilingualism in the Americas. Three lecture hours a week for one semester. Only one of the following may be counted: Linguistics 312 (Topic: Bilingualism in the Americas), 312F, Mexican American Studies 309, 319 (Topic: Bilingualism in the Americas).

### **LIN 313. Language and Computers.**

Natural language processing, including spam filtering, dialogue systems, spelling and grammar correction, forensic linguistics, cryptography, and machine translation. Studies how these systems function, the difficulties in implementing them, and implications of such technologies for society. Three lecture hours a week for one semester. Linguistics 312 (Topic: Language and Computers) and 313 may not both be counted.

### **LIN 315. Speech Science.**

Same as Speech, Language, and Hearing Sciences 315S. Neurophysiological mechanisms underlying the encoding and decoding of speech. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 315S, 358S, Linguistics 315, 358S, Speech, Language, and Hearing Sciences 315S.

### **LIN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Linguistics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Linguistics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **LIN 321L. American English.**

Same as English 321L. An overview of the historical development of English in the Americas. Attention to regional, social, and ethnic differences, and their implications for public education. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **LIN 323L. English as a World Language.**

Same as English 323L. An account of the spread of English around the world; national, social, and regional varieties. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **LIN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Linguistics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Linguistics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **LIN 344K. Phonetics: The Production and Perception of Speech Sounds.**

Articulation and transcription of speech sounds; distinctive feature systems; physiological and acoustical aspects of phonetics; common phonological processes. Three lecture hours a week for one semester.

### **LIN 345. Language Change and Language Variation.**

Introduction to the study of how languages change and the principles developed by linguists to account for these changes. Investigation of the various domains in which change occurs, and the social and linguistic motivations for change. Examines the methods linguists use to determine the earlier profile of a language or its parent language, before identified changes occurred. Three lecture hours a week for one semester. Prerequisite: Linguistics 344K.

### **LIN 346. Exploring Accents.**

Explores how different speakers of the same language differ in their pronunciation, according to regional and social groupings. Acoustic analysis of English speakers will provide the basis of an inquiry into how and why accents differ. Three lecture hours a week for one semester. Linguistics 346 and 350 (Topic: Exploring Accents) may not both be counted. Prerequisite: Linguistics 344K.

### **LIN 350. Special Topics in the Study of Language.**

Nontechnical examination of social, educational, and political problems to which current linguistic knowledge is relevant. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 3: Sign Languages and Signing Communities.** Same as American Sign Language 326. Examines the grammar of signed languages, their use in signing communities, and the acquisition of signed languages as first languages. No knowledge of American Sign Language is required. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upper-division standing.

**Topic 4: Language and People.** Areas in language and linguistics that most directly impact people, such as language and ethnicity, language and nation-building, and language politics. Prerequisite: Upper-division standing.

**Topic 5: Bilingual Language Acquisition.** Examines various aspects of bilingual first language acquisition including phonology, morphology, and syntax, as well as the child's use of his/her languages. Prerequisite: Upper-division standing.

**Topic 6: Indigenous Languages of the Americas.** Same as Latin American Studies 322 (Topic 15: Indigenous Languages of the Americas). Examines various aspects of languages in the Americas, including their linguistic structures, the cultural domains in which they exist, and their histories of language contact and change. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**Topic 7: Language, Cognition and Rhythm.** Explores connections between language and various musical forms, and what the psychological basis for these connections might be. Reading materials are drawn primarily from the published literature in psychology, linguistics, and music perception. Linguistics 350 (Topic: Language, Cognition, & Rhythm) and 350 (Topic 7) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 10: How to Describe a Language.** Practical introduction to language documentation and preservation. Subjects include language diversity and practical methods for describing, documenting, and preserving languages, with an emphasis on the phonological and morphological analysis of restricted data sets, as well as the role of linguists in conjunction with communities of speakers who wish to document or revitalize their languages. Three lecture hours a week for

one semester. Linguistics 350 (Topic: How to Describe a Language) and 350 (Topic 10) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 11: Speech Intelligibility.** An overview of the main empirical findings on talker-, listener-, and signal-related factors that shape speech intelligibility, the degree to which spoken language can be comprehended. Explores how signal-related (physical), peripheral (auditory-perceptual), and system-related (mental) factors condition variation in both the production and perception of intelligible speech. Also examines how variation in intelligibility conditions different levels of spoken language processing and different tasks that the listener is performing during spoken language comprehension. Three lecture hours a week for one semester. Linguistics 350 (Topic: Speech Intelligibility) and 350 (Topic 11) may not both be counted. Additional prerequisite: Linguistics 344K, 358S, or consent of instructor.

**Topic 12: Analyzing Text Data: A Statistics Toolkit for Linguists.** Introduction to statistical concepts and analyses via language problems and linguistic data sets. Three lecture hours a week for one semester. Linguistics 350 (Topic: Words in a Haystack) and 350 (Topic 12) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 14: Linguistics of Writing.** How language relates to the written word and how linguistic analysis is intertwined with writing. Subjects include the typology and evolution of writing systems, the psycholinguistics of reading and writing, and the role of writing in contemporary language politics. Linguistics 350 (Topic: Linguistics of Writing Systems) and 350 (Topic 14) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 15: Computational Semantics.** Studies methods for automatically learning and analyzing word meanings and sentence meanings. Encompasses vector space models as well as logic-based semantics. Linguistics 350 (Topic: Computational Semantics) and 350 (Topic 15) may not both be counted. Additional prerequisite: Upper-division standing.

### **LIN 350C. Language and the Brain.**

Same as Speech, Language, and Hearing Sciences 350. Explore the neuroanatomical and functional operations of the major brain structures that underlie speech/language. Examine hemispheric dominance for language, neurological and language breakdowns in aphasia, and brain imaging methods and studies of language representation. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 350; Linguistics 350 (Topic 1); Linguistics 350C; Speech, Language, and Hearing Sciences 350. Prerequisite: Upper-division standing.

### **LIN 350E. Why Chinese Has No Alphabet.**

Same as Asian Studies 361 (Topic 30). Introduction to the history and evolution of the Chinese writing system and language. No background in Chinese language, culture, or linguistics is required. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 30), Linguistics 350 (Topic: Why Chinese Has No Alphabet), 350E. Prerequisite: Upper-division standing.

### **LIN 350J. Latinas, Latinos and Language.**

Same as Mexican American Studies 357L. Three lecture hours a week for one semester. Only one of the following may be counted: Linguistics 350 (Topic: Latina/os and Language), 350J, Mexican American Studies 357L, 374 (Topic Latina/os and Language). Prerequisite: Upper-division standing.

### **LIN 353C. Introduction to Computational Linguistics.**

Introduction to key representations and algorithms used in computational linguistics and the main natural language processing applications. Three lecture hours a week for one semester. Linguistics

350 (Topic: Introduction to Computational Linguistics) and 353C may not both be counted.

### **LIN 353N. Natural Language Processing.**

Introduces theoretical and applied topics relating to natural language processing, including machine translation, search, automatic summarization, and dialog systems. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 378 (Topic: Natural Language Processing), Linguistics 350 (Topic: Natural Language Processing), 353N.

### **LIN 357. Undergraduate Research.**

Supervised research experience. Individual instruction. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and Linguistics 306 with a grade of at least C-.

### **LIN 358Q. Supervised Research.**

Supervised student-initiated research. Individual instruction. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and Linguistics 306 with a grade of at least C-.

### **LIN 360K. Introduction to English Grammar.**

Introduction to the study of the syntactic structure of modern English from the viewpoint of generative grammar. Three lecture hours a week for one semester. English 360K and Linguistics 360K may not both be counted. Prerequisite: Upper-division standing.

### **LIN 364M. History of the English Language.**

Same as English 364M. Development of sounds, forms, and vocabulary of the English language from its origins to the present. Three lecture hours a week for one semester. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **LIN 365. Bias.**

Same as Cognitive Science 365 and Human Dimensions of Organizations 365. An interdisciplinary introduction to bias from the perspectives of psychology, political science, business, philosophy, and linguistics. Three lecture hours a week for one semester. Only one of the following may be counted: Cognitive Science 365, 360 (Topic: Bias), Linguistics 365, 350 (Topic: Bias), Human Dimensions of Organizations 330 (Topic: Bias), 365. Prerequisite: Upper-division standing.

### **LIN 371. Machine Learning for Text Analysis.**

An overview of basic machine learning methods, with an emphasis on applications that automatically and intelligently analyze text. Program using Python. Programming experience is not required. Three lecture hours a week for one semester. Linguistics 371 and 373 (Topic: Machine Learning Text Analysis) may not both be counted. Prerequisite: Upper-division standing.

### **LIN 372K. Sound Patterns: From Sound to Word.**

Methods and principles of analyzing the sound systems of languages. Three lecture hours a week for one semester. Prerequisite: Linguistics 344K.

### **LIN 372L. Syntax and Semantics: The Structure and Meaning of Utterances.**

Methods and principles of describing the syntactic systems of languages. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Linguistics 306.

### **LIN 373. Topics in Linguistics and Related Disciplines.**

Introduction to the study of the areas of linguistics that involve other disciplines, such as sociolinguistics, psycholinguistics, mathematical methods in linguistics. Three lecture hours a week for one semester. May

be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 10: Language, Culture, and the Texas German Experience.** Same as American Studies 370 (Topic 47), Anthropology 324L (Topic 55), and German, Scandinavian, and Dutch Studies 351C. The evolution of the culture and language of German immigrants to Texas from the 1840s through the present and how they have influenced other ethnic groups in Texas. Three lectures a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Language, Culture, and the Texas German Experience), 370 (Topic 47), Anthropology 324L (Topic: Language, Culture, and the Texas German Experience), 324L (Topic 55), Germanic Civilization 327E (Topic 11) German, Scandinavian, and Dutch Studies 351C, Linguistics 350 (Topic: Language, Culture, and the Texas German Experience), 373 (Topic 10). Additional prerequisite: Upper-division standing.

### **LIN 373C. Child Language.**

Examine theory and research concerning the development of language in children. Three lecture hours a week for one semester. Linguistics 373 (Topic 1) and 373C may not both be counted. Prerequisite: Upper-division standing.

### **LIN 373E. Endangered Languages.**

Same as Anthropology 320G. Examine language rights as a tool for defending small-scale and minority language communities against the spread of national and global languages. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 320G, 320L (Topic Language Endangerment/Rights), 320L (Topic 13), Linguistics 373 (Topic: Language Endangerment/Rights), 373 (Topic 12), 373E. Prerequisite: Upper-division standing.

### **LIN 373G. The German Language: Historical Perspectives.**

Same as Anthropology 320J and German 369 (Topic 4). Conducted in English. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 320J, 320L (Topic 9), German 369 (Topic 4), Germanic Civilization 327E (Topic 9), Linguistics 373 (Topic 9), 373G. Prerequisite: Three semester hours of upper-division coursework in German or Linguistics.

### **LIN 373J. Bilingual Minds.**

Same as Mexican American Studies 357M. Three lecture hours a week for one semester. Only one of the following may be counted: Linguistics 373 (Topic: Bilingual Minds), 373J, Mexican American Studies 357M, 374 (Topic: Bilingual Minds). Prerequisite: Upper-division standing.

### **LIN 373L. American Indian Languages and Cultures.**

Same as Anthropology 320C. Explore the myriad of indigenous languages of North America and how they are intertwined with culture. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 320C, 320L (Topic 4), Linguistics 373 (Topic: Amer Indian Langs and Culs), 373L. Prerequisite: Upper-division standing.

### **LIN 373N. Machine Learning Toolbox for Text Analysis.**

Examine basic statistical methods for machine learning, with an emphasis on applications that have to do with text. Explore supervised learning (e.g., logistic regression, support vector machines, neural networks) and unsupervised learning (e.g., clustering, dimensionality reduction). Utilize Python programming. Three lecture hours a week for one semester. Linguistics 373 (Topic: Machine Learning Text Analysis) and 373N may not both be counted. Prerequisite: Upper-division standing.

### **LIN 373P. Introduction to Cognitive Science.**

Same as Cognitive Science 360 (Topic 1) and Philosophy 365 (Topic 2). Three lecture hours a week for one semester. Only one of the following may be counted: Cognitive Science 360 (Topic 1), Linguistics 373 (Topic 7), 373P, Philosophy 365 (Topic 2). Prerequisite: Upper-division standing.

### **LIN 373S. Speech Play and Verbal Art.**

Same as Anthropology 320D. Examine speech play and verbal art (from puns to lies to songs to stories to poetry) from ethnographic and linguistic perspectives in a host of contexts and languages. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 320D, 320L (Topic 5), Linguistics 373 (Topic: Speech Play and Verbal Art), 373S. Prerequisite: Upper-division standing.

### **LIN 377. Syntactic Theory.**

Introduction to formal syntax, which refers to the use of a mathematically precise formalism to model the syntax of human languages and test theories against the challenge of new data. Hands-on solving of syntax puzzles of increasing complexity. Three lecture hours a week for one semester. Linguistics 373 (Topic: Syntactic Theory) and 377 may not both be counted. Prerequisite: Linguistics 306 and 372L.

### **LIN 379. Conference Course in Linguistics.**

Supervised individual study of selected problems in linguistics. Conference course. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in linguistics.

### **LIN 679H. Honors Tutorial Course.**

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper. Conference course for two semesters. May be repeated for credit. Prerequisite: For 679HA, admission to the Linguistics Honors Program; for 679HB, Linguistics 679HA.

## **Graduate Courses**

### **LIN 380K. Phonology I.**

The descriptive techniques of generative phonology. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **LIN 380L. Syntax I.**

An introduction to the description and analysis of syntax. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **LIN 380M. Semantics I.**

An introduction to formal semantics and pragmatics, and the logical techniques needed to analyze them. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **LIN 380S. Sociolinguistics.**

An introduction to sociolinguistic research, with attention to theoretical issues. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Linguistics 380K and 380L.

### **LIN 381K. Phonology II.**

Readings and problems in current phonological theory. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Linguistics 380K.

### **LIN 381L. Syntax II.**

Advanced description and analysis of syntax. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Linguistics 380L.

### **LIN 381M. Phonetics.**

Speech production and perception; acoustic phonetics; phonetics and phonology; experimental techniques. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **LIN 381S. Semantics II.**

Continuation of Linguistics 380M. Descriptive methods and theoretical tools for investigating meaning in human languages; an introduction to propositional content and speech acts. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Linguistics 380L and 380M.

### **LIN 382. Historical Linguistics.**

The principles of language change, reconstruction of earlier linguistic stages, language contact, and language relatedness. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Linguistics 380K.

### **LIN 383. Comparative and Diachronic Linguistics.**

The comparative method; applications to particular linguistic families. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 3: Introduction to Romance Linguistics.** Same as French 396K (Topic 1: Introduction to Romance Linguistics), Italian 396K (Topic 1: Introduction to Romance Linguistics), Portuguese 396K (Topic 2: Introduction to Romance Linguistics), and Spanish 396K (Topic 2: Introduction to Romance Linguistics). Additional prerequisite: Graduate standing in languages and consent of instructor and the graduate adviser.

**Topic 6: History of the Arabic Language.** Same as Arabic 382C (Topic 4).

**Topic 8: Introduction to Diachronic Linguistics: Germanic.** Same as Classical Civilization 383 (Topic 2) and German 381 (Topic 3). Only one of the following may be counted: Classical Civilizations 383 (Topic 2), German 381 (Topic 3), Linguistics 383 (Topic 8).

### **LIN 384. Language Structures.**

Languages studied have included Chatino, German, Mayan, Romance languages, and others. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and twelve semester hours of upper-division coursework in linguistics.

**Topic 4: German Syntax.** Same as German 393K (Topic 1: German Syntax).

### **LIN 385. Field Methods in Linguistic Investigation.**

Methods of research in phonological and grammatical description; work with speakers of under-described languages. Three lecture hours a week for one semester, with additional field hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### **LIN 386M. Mathematical and Computational Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Computational Linguistics I.**

**Topic 3: Computational Linguistics II.**

**Topic 4: Computational Linguistics III: Advanced Parsing.**

### **LIN 387. Linguistics and Language Teaching.**

Same as Curriculum and Instruction 385G (Topic 6). Designed primarily for participants in international education exchange programs. Application of the findings of linguistics to the teaching of languages. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **LIN 389C. Research in Computational Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **LIN 389D. Research in Documentary and Descriptive Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **LIN 389P. Research in Phonetics and Phonology.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **LIN 389S. Research in Syntax and Semantics.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **LIN 389V. Research in Signed Languages.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **LIN 391. Topics in Descriptive Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 2: Studies in English Grammar.** Additional prerequisite: Consent of instructor.

### **LIN 392. Current Developments in Linguistic Research.**

A reading course in a selected area of linguistics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Introduction to Cognitive Science.** Same as Cognitive Science 380 (Topic 1: Introduction to Cognitive Science), Philosophy 383C, and Psychology 394U (Topic 3: Introduction to Cognitive Science). Only one of the following may be counted: Cognitive Science 380 (Topic 1), Linguistics 392 (Topic 1), 393 (Topic: Introduction to Cognitive Science), 393 (Topic: Topics in Cognitive Science), Philosophy 383 (Topic: Introduction to Cognitive Science), 383C, Psychology 394U (Topic 3).

**Topic 2: Tools for Linguistic Description.** Basic tools for analyzing and describing a language through linguistic fieldwork, including phonetic transcription, the discovery and presentation of surface phonology, morphophonology, inflectional morphology, derivational morphology, grammatical categories, and syntax.

**Topic 3: Linguistic Typology.** An introduction to the typological study of language: the investigation into the nature of human language, as informed by systematic cross-linguistic comparison.

### **LIN 393. Seminar in Linguistic Topics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 4: Neurolinguistics.**

**Topic 6: Speech Play and Verbal Art.** Same as Anthropology 393 (Topic 3).

### Topic 8: Linguistics of Signed Languages.

#### LIN 393C. Language Acquisition.

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### LIN 393P. Topics in Phonology and Phonetics.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

#### LIN 393S. Topics in Syntax and Semantics.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

#### LIN 394K. Philosophy of Language.

Same as Philosophy 394K. Three lecture hours a week for one semester. Only one of the following may be counted: Linguistics 393S (Topic: Philosophy of Language), 394K, Philosophy 391 (Topic: Philosophy of Language), 394K. Prerequisite: Graduate standing and consent of instructor.

#### LIN 395. Conference Course in Linguistics.

Supervised research. Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the linguistics graduate adviser.

#### LIN 396. Topics in Sociolinguistics.

Detailed investigation of an area of current interest in sociolinguistics. Most topics provide an opportunity for field research. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 2: Introduction to Graduate Linguistic Anthropology.** Same as Anthropology 392N. Prerequisite: Graduate standing and consent of instructor.

**Topic 3: Ethnography of Speaking.** Same as Anthropology 393 (Topic 8: Ethnography of Speaking). Additional prerequisite: Consent of instructor.

**Topic 4: Turkic Cultures and Languages in Central Asia.** Same as Middle Eastern Studies 381 (Topic 26: Turkic Cultures and Languages in Central Asia). Additional prerequisite: Consent of instructor.

**Topic 7: Grammar of the Arabic Language.** Same as Arabic 382C (Topic 2).

#### LIN 397. Forum for Doctoral Candidates.

Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in linguistics and consent of instructor.

#### LIN 698. Thesis.

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in linguistics and consent of the graduate adviser; for 698B, Linguistics 698A.

#### LIN 398R. Master's Report.

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in linguistics and consent of the graduate adviser.

#### LIN 398T. Supervised Teaching in Linguistics.

Teaching under the close supervision of the course instructor; weekly group meetings with instructor, individual consultations, and reports throughout the teaching period. Three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant.

#### LIN 399W, 699W, 999W. Dissertation.

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

### Professional Courses

## Malayalam Courses

### Malayalam: MAL

#### Lower-Division Courses

##### MAL 506. First-Year Malayalam I.

Standard Malayalam of Kerala. Five class hours a week for one semester.

##### MAL 507. First-Year Malayalam II.

Five class hours a week for one semester. Prerequisite: Malayalam 506 with a grade of at least C.

##### MAL 312K. Second-Year Malayalam I.

Three lecture hours a week for one semester. Prerequisite: Malayalam 507 with a grade of at least C.

##### MAL 312L. Second-Year Malayalam II.

Three lecture hours a week for one semester. Prerequisite: Malayalam 312K with a grade of at least C.

##### MAL 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Malayalam.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### Upper-Division Courses

##### MAL 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Malayalam.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser for the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

##### MAL 330. Topics in Malayalam Language and Literature.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Malayalam 312L with a grade of at least C.

##### MAL 330E. Modern Malayalam Drama.

Focus on 20th-century drama and plays in Malayalam. Examine both the text of the play and its status as socially relevant art, to develop an overview of theatre movements in Malayalam literature and Kerala society. Engage through speaking, listening, reading, and writing. Three

lecture hours a week for one semester. Malayalam 330 (Topic: Contemp Malayalam Drama) and 330E may not both be counted. Prerequisite: Malayalam 312L with a grade of at least C.

### **MAL 360. Conference Course in Malayalam Language and Literature.**

Supervised individual study of selected problems in Malayalam language or literature. Conference course. May be repeated for credit. Prerequisite: Malayalam 312L and written consent of instructor on form obtained from the undergraduate adviser.

## **Graduate Courses**

### **MAL 381. Conference Course in Malayalam Language and Culture.**

Supervised individual study in Malayalam language or culture. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor on a form obtained from the graduate coordinator.

### **MAL 384. Topics in Malayalam Language and Culture.**

Study of various aspects and periods of Malayalam language and culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and six semester hours of upper-division coursework in Malayalam or consent of instructor.

**Topic 1: Contemporary Malayalam Short Stories.** Focus on Malayalam short stories from mainstream writers in modern Malayalam to explore contemporary Malayalam literature. Engage through speaking, listening, reading, and writing.

**Topic 2: Malayalam Cinema and Screenplays.** Focus on reading Malayalam screenplays to develop speaking and listening proficiency with conversational Malayalam. Explore commonly-used proverbs and idioms. Engage through speaking, listening, reading, and writing.

**Topic 3: Modern Malayalam Drama.** Focus on 20th-century drama and plays in Malayalam. Examine both the text of the play and its status as socially relevant art, to develop an overview of theatre movements in Malayalam literature and Kerala society. Engage through speaking, listening, reading, and writing.

**Topic 4: Short Novels of Basheer.** Consider two short novels by Vaikom Muhammad Basheer, a beloved author and Indian independence activist. Explore how Basheer's works and unique style are foundational in the field of Malayalam language and literature. Engage through speaking, listening, reading, and writing.

**Topic 5: Reform Movements in Kerala.** Focus on social change movements in Kerala in the nineteenth and twentieth centuries, through the examination of primary and secondary sources in Malayalam. Explore prose style as well as reform movements in Kerala. Engage through speaking, listening, reading, and writing.

**Topic 6: Stories from Aithiyamaala.** Examine selected stories from Aithiyamaala (Garland of Legends) by Kottarathil Sankunni, a collection of tales and legends from Kerala, to develop vocabulary and language proficiency as well as an understanding of the traditional views, practices, and traditions of Kerala. Engage through speaking, listening, reading, and writing.

## **Professional Courses**

# **Management Courses**

## **Management: MAN**

### **Lower-Division Courses**

#### **MAN 101H, 201H, 301H. Leadership Challenges and Innovation: Honors.**

Restricted to students admitted to the McCombs School of Business Honors Program. Introduction to key factors in organizational success, including the roles of leadership and culture, the value of a diverse workforce and an inclusive environment, and the importance of creativity and innovation. One discussion hour a week for one semester and, for each semester hour of credit earned, the equivalent of one lecture hour. Only one of the following may be counted: Management 101H, 201H, 301H, 101S, 201S, 301S, 101T, 201T, 301T. Offered on the letter-grade basis only.

#### **MAN 101S, 201S, 301S. Leadership Challenges and Innovation.**

Restricted to freshmen students in the McCombs School of Business. Introduction to key factors in organizational success, including the roles of leadership and culture, the value of a diverse workforce and an inclusive environment, and the importance of creativity and innovation. One discussion hour a week for one semester and, for each semester hour of credit earned, the equivalent of one lecture hour. Only one of the following may be counted: Management 101H, 201H, 301H, 101S, 201S, 301S, 101T, 201T, 301T. Offered on the letter-grade basis only.

#### **MAN 101T, 201T, 301T. Leadership Challenges and Innovation.**

Restricted to transfer students in the McCombs School of Business. Introduction to key factors in organizational success, including the roles of leadership and culture, the value of a diverse workforce and an inclusive environment, and the importance of creativity and innovation. One discussion hour a week for one semester and, for each semester hour of credit earned, the equivalent of one lecture hour. Only one of the following may be counted: Management 101H, 201H, 301H, 101S, 201S, 301S, 101T, 201T, 301T. Offered on the letter-grade basis only.

## **Upper-Division Courses**

### **MAN 320F. Foundations of Management and Organizational Behavior.**

Restricted to non-McCombs School of Business majors. An introduction to the management of organizations. Issues are addressed from the perspectives of strategy and planning, organizational behavior, and operations management. Three lecture hours a week for one semester. Only one of the following may be counted: Management 320F, 336 and 336H. Prerequisite: Forty-five semester hours of college coursework.

### **MAN 325. Strategic Human Resources Management.**

Restricted to students in a business major. Overview of the personnel function, covering recruitment, compensation, equal employment, job analysis, training, benefits, employee discipline, collective bargaining, safety, and health. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Management 336 or 336H.

### **MAN 327. Innovation and Entrepreneurship.**

Explores the theoretical foundations and research evidence underlying innovation and entrepreneurship. Subjects include discovering and creating new sources of value, recognizing and evaluating opportunities, generating business models, engaging stakeholders, shaping markets, and competing against larger competitors and entrenched institutions. Three lecture hours a week for one semester. Management 327 and

327H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Twenty-four semester hours of college credit.

### **MAN 327E. New Venture Mechanics.**

Starting up a new venture involves a wide range of decisions, activities, and processes such as those involved in identifying the potential of an idea, developing and protecting an idea, building a new venture team, creating a business plan, obtaining resources, and establishing a business entity. Covers the basic analytical tools and processes involved in all these aspects of founding a new business. Three lecture hours a week for one semester. Management 327E and 337 (Topic: New Venture Mechanics) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Management 327 or 327H; twenty-four semester hours of college credit.

### **MAN 327H. Innovation and Entrepreneurship: Honors.**

Restricted to students admitted to the McCombs School of Business Honors Program. Examines the knowledge and skills used to discover and create new sources of value, develop ideas into viable businesses, recognize and shape opportunities, generate new business models, engage with the ecosystem of new ventures, launch new businesses, and manage an innovation portfolio. Draws on various theoretical foundations, research evidence, and business cases to develop an understanding of effectiveness in entrepreneurship and innovation. Three lecture hours a week for one semester. Management 327 and 327H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Twenty-four semester hours of college credit, including Mathematics 408D, 408L, or 408S and credit or registration for Business Administration 324H.

### **MAN 328. Consulting and Change Management.**

Restricted to students in a business major. Designed to develop the fundamental change knowledge and consulting skills of students who plan to work with organizations as change agents, whether internally as managerial employees or externally as outside consultants. Three lecture hours a week for one semester. Prerequisite: Management 336 or 336H with a grade of at least C-.

### **MAN 334M. Healthcare System Management.**

Introduction to the business ecosystem of the U.S. healthcare industry using a multi-disciplinary approach to investigate business structures, processes, and outcomes of health services in America. Explores the functionality of various healthcare components. Three lecture hours a week for one semester. Management 334M and 337 (Topic: Healthcare System Management) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **MAN 336. Organizational Behavior.**

Restricted to students in the McCombs School of Business. The process of managing organizations and the behavior of individuals and groups within the organizational setting. Three lecture hours a week for one semester. Only one of the following may be counted: Management 320F, 336 and 336H. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Business Administration 324 or 324H; and credit or registration for three semester hours of coursework in anthropology, psychology, sociology, or educational psychology, or Social Science 302D or 302E.

### **MAN 336H. Organizational Behavior: Honors.**

Restricted to students in the McCombs School of Business Honors Program. An exploration of the process of managing organizations and the behavior of individuals and groups within the organizational setting. Three lecture hours a week for one semester. Only one of the following may be counted: Management 320F, 336 and 336H. Offered on the letter-grade basis only. Prerequisite: Accounting 312H; credit or registration for

Business Administration 324H; and thirty semester hours of coursework, including credit or registration for three semester hours of coursework in anthropology, psychology, sociology, or educational psychology, or Social Science 302D or 302E.

### **MAN 137, 237, 337. Special Topics in Management.**

Analysis of contemporary management problems. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 2: Interdisciplinary Entrepreneurship.** Restricted to students in a business major. Focus on skill development and mentoring in start-up formation, technology development, market validation, marketing, sales, operations, human resources, program management, and finance. Includes discussion of intellectual property, social issues in design, as well as ethical and safety considerations. Emphasis on written and oral presentation of start-up activities. Only one of the following may be counted: Computer Science 374L, 378 (Topic: Longhorn Startup), Electrical Engineering 377E, Engineering Studies 377E, Management 337 (Topic: Interdisciplinary Entrepreneurship), 337 (Topic 2). Additional prerequisite: Consent of instructor.

**Topic 3: Intercultural Management.** Provides a conceptual framework and specific tools for interacting successfully in international teams, negotiations, and partnerships. Discusses cultural patterns characteristic of world regions and particular countries in terms of their implications for corporate management. Only one of the following may be counted: Management 337 (Topic: Intercultural Management), 137, 237, 337 (Topic 3), and International Business 372 (Topic 12).

**Topic 4: Leading for Impact.** Restricted to students in the McCombs School of Business. Explore leadership and personal development by engaging in personal assessments, action planning, peer discussion, and self-reflection in an interactive format. Management 337 (Topic: Leading for Impact) and 137, 237, 337 (Topic 4) may not both be counted.

**Topic 5: Technology Transfer and Entrepreneurship.** Restricted to students in a business major. Explores creating wealth from scientific discovery, which is the core of any business enterprise. Flight, computers, automobiles cell phones and petroleum enterprises all start with science. Divided into teams which design a business model for wealth creation around a patent (science), this activity is grounded in the entrepreneurial process, which includes business models, eco-systems, funding the enterprise, and business plans. Teams present their "big idea" that is grounded in patents at the end of the class period. Management 337 (Topic: Technology Transfer and Entrepreneurship) and 137, 237, 337 (Topic 5) may not both be counted.

**Topic 7: People Analytics.** Restricted to students in a business major. Explore the use of analytics in the creation and management of human capital. Examine recruiting, selecting, deploying, developing and managing performance of employees. Only one of the following may be counted: Management 337 (Topic: People Analytics), 337 (Topic 7), Business Analytics 372 (Topic 7)

**Topic 9: Leadership Issues.** Restricted to students in a business major. Three lecture hours a week for one semester. Additional prerequisite: Management 336 or 336H with a grade of at least C-.

**Topic 10: Women in Entrepreneurship.** Management 337 (Topic: Women in Entrepreneurship) and 337 (Topic 10) may not both be counted.

**Topic 20: Entrepreneurial Management.** Restricted to students in a business major. Covers the life cycle of an entrepreneurial business, including evaluating the attractiveness of an idea, launching and growing the business, and harvesting the profits. Three lecture hours a week for one semester. Additional prerequisite: Accounting 311 or

311H; Management 336 or 336H with a grade of at least C-; and credit or registration for Finance 357 or 357H.

**Topic 21: The Art and Science of Negotiation.** Restricted to students in a business major. Designed to help students develop a broad array of negotiation skills and to understand negotiations in useful analytical frameworks. Emphasis is placed on simulations, role-playing, and cases. Three lecture hours a week for one semester. Additional prerequisite: Management 336 or 336H with a grade of at least C-.

**Topic 22: Women in Management.** Additional prerequisite: Completion of forty-five semester hours of coursework.

### **MAN 137C. Introduction to Management in a Global Environment.**

Same as International Business 137C. Restricted to students pursuing the global management minor. Develops students' skills in recognizing cultural tendencies, both in themselves and in new geographic locations; introduces observation and reflection techniques to maximize learning while abroad. Course must be taken before participation in the international experience component required by the Global Management Certificate. One lecture hour a week for one semester. International Business 137C and Management 137C may not both be counted. Offered on the letter-grade basis only.

### **MAN 237D. Global Management Capstone.**

Same as International Business 237D. Restricted to students pursuing the global management minor. Develops students' ability to process and articulate learning from intercultural experience; develops skills in applying knowledge and strategies gained in one region/country to new cultural and geopolitical contexts. Two lecture hours a week for one semester. Management 237D and International Business 237D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Management 137C or International Business 137C, completion of required international experience component of the Global Management Minor, and consent of instructor.

### **MAN 338. Lean Startup Essentials.**

Focus on the entrepreneurial process including problem identification, innovation, business plans, fund raising, legal aspects, launching, and management. Three lecture hours a week for one semester. Management 337 (Topic: Lean Startup Essentials) and 338 may not both be counted. Prerequisite: Thirty semester hours of coursework.

### **MAN 340. Leadership and Urban Engagement.**

Same as Communication 340, Fine Arts 345, and Liberal Arts 340. Restricted to students accepted to the UT in New York Program. Explore leadership skills and goals in the urban context. Read and discuss leadership challenges that arise when stakeholders come together to plan, make decisions, and take action in organizational and community settings. Three lecture hours a week for one semester. Only one of the following may be counted: Communication 340, Fine Arts 345, Liberal Arts 325 (Topic: Leadership/Urban Engagement), 340, Management 340. Prerequisite: Upper-division standing.

### **MAN 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in Management.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

### **MAN 147C, 247C, 347C. Texas Startup Accelerator.**

Support startups in an experiential leadership practicum through projects designed to accelerate the venture's development. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **MAN 147I, 247I, 347I. Texas Startup Incubator.**

Build and grow a new venture through an experiential leadership practicum, with advice and assistance on the entrepreneurial process. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing

### **MAN 347P. Entrepreneurship Practicum.**

Application of entrepreneurship skills and focus on additional project management skills through individual or group assignments conducted in an entrepreneurial setting, focusing on new business development either within existing companies (corporate entrepreneurship) or as stand-alone ventures (entrepreneurship). Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **MAN 366P. Management Practicum: Social Entrepreneurship I.**

Focuses on developing business plans through a semester-long project. Explores non-profit, for-profit, and hybrid organizations and how they deal with corporate social responsibility. The equivalent of three lecture hours a week for one semester. Management 366P and 369P may not both be counted. Prerequisite: Upper-division standing; and Management 320F, 336, or 336H.

### **MAN 367P. Social Entrepreneurship II.**

Apply skills and focus on readying chosen projects to increase awareness and understanding of business and economics issues, and prepare presentation teams for regional and national competitions based on criteria set by the international Enactus organization. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing.

### **MAN 369P. Social Innovation Practicum.**

Explores a broad overview of the field of social innovation, and examines concepts and tools that support the creation of social ventures. Includes creating a social venture, articulating its vision, creating a business plan, choosing an organizational form, and assessing the venture's financial and social impact. Three lecture hours a week for one semester. Management 366P and 369P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **MAN 374. General Management and Strategy.**

Restricted to students in a business major. Designed to enable students to analyze business situations from the point of view of the practicing general manager. Addresses key tasks involved in general management, including strategic decisions that ensure the long-term health of the entire firm or a major division. Three lecture hours a week for one semester. Management 374 and 374H may not both be counted. Prerequisite: Seventy-five semester hours of coursework, including: Management 336 or 336H; credit or registration for Finance 357 or 357H, and Marketing 337 or 337H; and credit or registration for one of the following: Accounting 353J, 366P, Business Administration 353, 353H, Finance 353, 366P, Management 347P, 353, 366P, 367P, 369P, Management Information Systems 353, 366P, Marketing 353, 366P, Operations Management 353, or 366P.

### **MAN 374H. General Management and Strategy: Honors.**

Restricted to students in the McCombs School of Business Honors Program. Designed to enable students to analyze business situations from the point of view of the practicing general manager. Addresses key tasks involved in general management, including strategic decisions that ensure the long-term health of the entire firm or a major division. Three lecture hours a week for one semester. Management 374 and 374H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Senior standing; Finance 357H; Management 336H; Marketing 337H; credit or registration for Operations Management 235H; and credit or registration for one of the following: Accounting 353J, 366P, Business Administration 353, 353H, Finance 353, 366P, Management 347P, 353, 366P, 367P, 369P, Management Information Systems 366P, Marketing 366P, Operations Management 353, or 366P.

### **MAN 179C, 379C. Independent Research in Management.**

Restricted to students in a business major. Conference course. Only one of the following may be counted: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upper-division; Management 336 or 336H with a grade of at least C-; consent of instructor; written approval before the first meeting of the course from the department chair's office on forms provided for that purpose.

## **Graduate Courses**

### **MAN 183, 283, 383. Current Issues in Organization Science.**

Restricted to graduate students in the McCombs School of Business. For 183, one lecture hour a week for one semester; for 283, four lecture hours a week for half a semester; for 383, three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 16: Leading People and Organizations.** Designed to increase the student's effectiveness as a manager through discussion of organizational behavior and design, and guidelines for applying these concepts. Offered on the letter-grade basis only.

**Topic 17: Organizational Behavior for Executives.** Restricted to students in the Executive MBA Program. Explore organizational behavior frameworks and concepts that leaders can use to get things done in their teams and organizations. Examine how leaders can design effective organizations and teams, engage employees, improve decision making, manage interpersonal and team dynamics, exercise influence, and adapt to changing internal and external contexts. Offered on the letter-grade basis only.

**Topic 20: Art and Science of Negotiation.** Offered on the letter-grade basis only. Additional prerequisite: Admission to the McCombs School of Business.

**Topic 23: People Analytics.** Covers issues related to making human resource decisions in a more effective manner. Uses a strategic perspective, with particular emphasis on the links between human resource decisions and a firm's competitive position. Management 183, 283, 383 (Topic 22) and 183, 283, 383 (Topic 23) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Admission to the McCombs School of Business.

**Topic 24: Managing Human Capital.** Restricted to students in the McCombs School of Business. Explore issues related to talent management processes, including how companies hire, socialize, appraise, reward, and retain talent. Use a strategic perspective of the impact of organizational context on how companies manage human capital and the practices and analytical frameworks that help

managers leverage human capital. Offered on the letter-grade basis only.

**Topic 25: Strategic Human Capital for Executives.** Restricted to students in the Executive MBA Program. Examine a set of analytical approaches to leveraging data that exist within an organization to make strategic human capital decisions. Explore how leading companies are applying analytics within their people organizations, as well as how these approaches are driving important organizational outcomes. Offered on the letter-grade basis only.

**Topic 26: Leading in High Stakes Environments.** Restricted to students in the Executive MBA Program. Examine the art and science of securing an agreement between two or more interdependent parties who are seeking to maximize their outcomes. Explore research and theory that help improve understanding of the behavior of individuals, groups, and organizations in the context of competitive situations. Offered on the letter-grade basis only.

**Topic 27: Advocacy for Executives.** Restricted to students in the Executive MBA Program. Focus on how leaders, especially senior leaders, can better advocate for their ideas. Examine how executives can effectively and persuasively communicate their ideas to diverse audiences, enhance their reputations as innovative leaders, build partnerships around their ideas, and successfully influence others to adopt their innovative notions. Offered on the letter-grade basis only.

**Topic 31: Organizational Change and Strategic Renewal.** Offered on the letter-grade basis only.

### **MAN 185, 285, 385. Current Issues in Strategic Management.**

Restricted to graduate students in the McCombs School of Business. For 185, one hour a week for a semester; for 285, four lecture hours a week for half a semester; for 385, three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Action Skills for Managers: Implementing Strategy.** Offered on the letter-grade basis only.

**Topic 2: The Art of Leadership.** Offered on the letter-grade basis only.

**Topic 6: Management Planning and Control in Complex Systems.** Offered on the letter-grade basis only.

**Topic 8: Managing Corporate Diversification and Renewal.** Offered on the letter-grade basis only.

**Topic 9: Strategic Analysis for High-Tech Industries.** Management 185, 285, 385 (Topic 9) and Management Information Systems 181N, 281N, 381N (Topic 3) may not both be counted. Offered on the letter-grade basis only.

**Topic 20: Advanced Venture Development.** Offered on the letter-grade basis only.

**Topic 22: New Venture Creation.** Examine what advantages start-ups have over existing organizations when it comes to identifying new opportunities and developing innovative solutions to address pain points and create value. Offered on the letter-grade basis only.

**Topic 23: Introduction to Entrepreneurship.** Offered on the letter-grade basis only.

**Topic 24: Entrepreneurial Growth.** Offered on the letter-grade basis only.

**Topic 25: Social and Economic Aspects of Entrepreneurship.** Offered on the letter-grade basis only.

**Topic 26: Managing Corporate Turnarounds, Restructuring, and Bankruptcy.** Restricted to students in the Executive MBA Program. Examine turnaround business situations, i.e., established firms experiencing operational, financial and managerial difficulties. Consider strategy issues as well as financial ones with an emphasis on the operating manager's perspective. Offered on the letter-grade basis only.

**Topic 33: Managing and Marketing in the Global Arena.** Offered on the letter-grade basis only.

**Topic 36: Power and Politics.** Covers skills and techniques to gain power and influence in organizations as political entities. Includes cases, business press, and theoretical articles. Offered on the letter-grade basis only.

**Topic 49: Strategic Management.** Designed to help students develop a general management orientation. Subjects include the role of the general manager, formulating business and corporate-level strategy, managing strategic change, strategy implementation, and developing general managers. Business Administration 188T, 288T, 388T and Management 185, 285, 385 (Topic 49) may not both be counted. Offered on the letter-grade basis only.

**Topic 61: Perspectives on Public Policy.** Designed to prepare MBA students, both as individuals and in their professional careers as managers and leaders, for active and effective participation in the democratic process. Offered on the letter-grade basis only.

**Topic 62: Corporate Governance.** Examines the roles and responsibilities of organizational leadership in a variety of settings, including large and small companies, startups and established companies, global, single-country, and single-region companies, and nonprofit entities. Only one of the following may be counted: Management 285 (Topic 62), 385 (Topic 62), Marketing 382 (Topic: Corporate Governance). Offered on the letter-grade basis only.

**Topic 63: Economics of Competitive Strategy.** Develops and uses concepts from microeconomics, game theory, and the economics of industrial organization and applies these concepts to competitive decision making, using a combination of case analyses and lectures. Offered on the letter-grade basis only.

**Topic 64: Enterprise of Technology: From Mind to Market.** Focuses on moving an idea from the mind of the researcher to the marketplace by examining the activities involved in commercializing a technology from conception to profitable enterprise. Offered on the letter-grade basis only.

**Topic 65: Management Consulting Practicum.** Students work in supervised teams and develop recommendations to solve a real business problem for a client firm. Offered on the letter-grade basis only. Additional prerequisite: Consent of instructor.

**Topic 69: Social Innovation Practicum.** Overview of the field of social innovation, including concepts and tools that support the creation of social ventures. Hands-on application to develop a social venture, articulate its vision, create a business plan, choose an organizational form for the venture, and assess the venture's financial and social impact. Offered on the letter-grade basis only.

### **MAN 185D. Global Practicum for Executives.**

Restricted to students in the Executive MBA Program. Examine the history, culture, politics, and economics of a region through direct experience with a study tour or global management seminar in the respective regional area. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **MAN 185E, 285E, 385E. Directed Studies in Global Management and Business Practices.**

Same as International Business 185E. Same as International Business 285E. Same as International Business 385E. Study global business practices through lectures on campus and trips to international partner schools. The equivalent of one lecture hour a week for one semester. Only one of the following may be counted: International Business 385E, Management 185C and 385E. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **MAN 185F, 285F, 385F. Leading for Impact.**

Analysis and application of contemporary concepts and theories of principled leadership for work teams and organizations. For each

semester hour of credit earned, one lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **MAN 185G. Strategic Innovation and Entrepreneurship.**

One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate Standing.

### **MAN 285H. Innovation in the New Economy: Entrepreneurial Mindset.**

Restricted to students in the Executive MBA Program. Examine approaches that executives can use for identifying and creating new business opportunities, and for designing organizations and processes to foster employee creativity and innovation. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **MAN 185S, 285S, 385S. Leading For Impact Capstone.**

Restricted to MBA students in the McCombs School Business Explore leadership development and provide opportunities to practice leadership abilities through projects for real organizations. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Management 185F, 285F, or 385F.

### **MAN 390. Seminar: Organization Science.**

Intensive analysis of organizational science issues. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Admission to the doctoral degree program and consent of instructor.

**Topic 1: Research in Organizational Science.**

**Topic 2: Introduction to Research Methods in Management.**

**Topic 3: Research Methods in Management.**

**Topic 4: Seminar in Organizational Behavior.**

**Topic 5: Seminar in Organization Theory.**

**Topic 6: Organizational Decision Making.**

**Topic 9: Behavioral Decision Theory.**

**Topic 11: Management of Knowledge Workers.** The study of knowledge workers at four levels of analysis: as individuals, as team members, as organizational resources, and as national resources. Strong emphasis on theory building.

### **MAN 393. Seminar: Strategic Management.**

Intensive analysis of strategic management issues. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Admission to the doctoral degree program and consent of instructor.

**Topic 1: Foundations of Strategic Management.**

**Topic 2: Contemporary Issues in Strategic Management.**

**Topic 3: Research in Strategic Management.**

**Topic 5: Executive Leadership.**

**Topic 6: Management of Diversification.**

### **MAN 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in management and consent of the supervising faculty member and the graduate adviser; for 698B, Management 698A.

### **MAN 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite:

Graduate standing, enrollment in the doctoral program in management, and consent of the supervising faculty member and graduate adviser.

### **MAN 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Management Information Systems Courses**

## **Management Information Systems: MIS**

### **Lower-Division Courses**

#### **MIS 301. Introduction to Information Technology Management.**

Restricted to students in the McCombs School of Business. Explores how information technology helps to achieve competitive advantage and improve decision making, business processes, operations, and organizational design. Uses a cross-functional perspective to recognize the role of technology across business activities of management, finance, marketing, human resources, and operations. Three lecture hours a week for one semester. Management Information Systems 301 and 301H may not both be counted. Offered on the letter-grade basis only.

#### **MIS 301H. Introduction to Information Technology Management: Honors.**

Restricted to students admitted to the McCombs School of Business Honors Program. Explores how information technology helps to achieve competitive advantage and improve decision making, business processes, operations, and organizational design. Uses a cross-functional perspective to recognize the role of technology across business activities of management, finance, marketing, human resources, and operations. Three lecture hours a week for one semester. Management Information Systems 301 and 301H may not both be counted. Offered on the letter-grade basis only.

#### **MIS 302F. Foundations of Information Technology Management.**

Restricted to non-McCombs School of Business majors. Explores how information technology helps to achieve competitive advantage and improve decision making, business processes, operations, and organizational design. Uses a cross-functional perspective to recognize the role of technology across business activities of management, finance, marketing, human resources, and operations. Three lecture hours a week for one semester. Management Information Systems 301 and 302F may not both be counted.

#### **MIS 304. Introduction to Problem Solving and Programming.**

Same as Business Analytics 304. Restricted to students in the McCombs School of Business. Programming skills for creating easy-to-maintain systems for business applications. Object-oriented and structured methodologies with Python. Three lecture hours a week for one semester. Management Information Systems 304 and Business Analytics 304 may not both be counted. Offered on the letter-grade basis only.

#### **MIS 310 (TCCN: BCIS 1305). Introduction to Management Information Systems.**

Basic computer terminology, hardware and software, communications technology, graphics, systems analysis and design, and issues arising out of the rapidly evolving field of information systems. Students

are expected to achieve a working knowledge of personal computer software, including operating system software and environments, as well as spreadsheets, analytical graphics, databases, and presentation software. Hands-on experience with the Internet and use of electronic mail. Three lecture hours a week for one semester.

## **Upper-Division Courses**

### **MIS 325. Database Management.**

Same as Business Analytics 325. Restricted to students in the McCombs School of Business. Beginning and intermediate topics in data modeling for relational database management systems. Three lecture hours a week for one semester. Management Information Systems 325 and Business Analytics 325 may not both be counted. Offered on the letter-grade basis only.

### **MIS 333K. Web Application Development.**

Restricted to students in a business major. Concepts and practices of information systems. Advanced programming techniques used to generate menu-driven applications. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 304 or Business Analytics 304; and Management Information Systems 325 or Business Analytics 325 with a grade of at least C- in each.

### **MIS 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in Management Information Systems.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

### **MIS 366P. Management Information Systems Practicum.**

Restricted to students in a business major. Students apply skills in their major area and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise. The equivalent of three lecture hours a week for one semester. Prerequisite: Forty-five semester hours of college coursework and consent of instructor.

### **MIS 173, 273, 373. Topics in Management Information Systems.**

Restricted to students in a business major. Provides in-depth treatment of business data processing concerns such as database management, telecommunications, and development of commercial systems. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Varies with the topic.

**Topic 6: Advanced Application of Software Development.** Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 333K and consent of instructor.

**Topic 8: Advanced Data Communication Systems.** Development issues for intranet- and internet-based systems. Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 173, 273, 373 (Topic 24)(or Management Information Systems 365).

**Topic 9: Health Care Management.** Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 325 or Business Analytics 325.

**Topic 11: Advanced Analytics Programming.** Focuses hands-on data analysis using the Python programming language. Subjects include

machine learning tasks such as classification and clustering. Only one of the following may be counted: Management Information Systems 373 (Topic: Advanced Analytics Programming), 373 (Topic 11), Business Analytics 372 (Topic 1). Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 304 or Business Analytics 304 with a grade of at least C-.

**Topic 12: Technical Consulting.** Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 304 or Business Analytics 304.

**Topic 13: Information Technology for Supply Chains.** Provides an understanding of how information technology is used to coordinate supply chain activities across different industries. Students work in teams and undertake hands-on exercises to learn how to plan and coordinate operations. Management Information Systems 173, 273, 373 (Topic 13) and Operations Management 137, 237, 337 (Topic 4) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 301, 301H, or 302F with a grade of at least C-.

**Topic 14: Web Systems Development.** Concepts underlying Web development tools, page and site design, and building Web-based business sites. Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 304 or Business Analytics 304; and Management Information Systems 325 or Business Analytics 325.

**Topic 15: Systems Analysis for E-Business.** Applications of technology for creating e-business systems and process redesign. Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 325 or Business Analytics 325.

**Topic 16: Information Technology Security, Privacy, and Survivability.** Offered on the letter-grade basis only. Additional prerequisite: For business majors, Management Information Systems 333K or the equivalent; for others, consent of instructor.

**Topic 17: Predictive Analytics and Data Mining.** Introduces the data mining process and primary data mining techniques employed to extract intelligence from data and evaluates the strengths and weaknesses of data mining techniques applied to challenges in various business domains. Only one of the following may be counted: Management Information Systems 373 (Topic 17), Marketing 372 (Topic: Predictive Analytics and Data Mining), 372 (Topic 22), Business Analytics 372 (Topic 2). Offered on the letter-grade basis only. Additional prerequisite: Statistics 301, 301H, 309 or 309H.

**Topic 18: Business Process Excellence.** Provides in-depth coverage of business process change and management with information technology (IT) in today's organizations. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing.

**Topic 19: Enterprise Computing.** Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 333K, or equivalent programming experience.

**Topic 20: Managing the Future.** Addresses the management of uncertainty. Introduces managerial concepts and methods for structuring decisions about the uncertainties in the future of industries, products, markets, and technologies. Includes scenario analysis, technology roadmaps, and dynamic innovation models. Students work in teams and undertake hands-on exercises aimed at developing a set of alternative futures for industries and technologies. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing.

**Topic 21: Open Innovation.** Offered on the letter-grade basis only.

**Topic 22: IT Audit and Security.** Offered on the letter-grade basis only.

**Topic 23: Social Media Analytics.** Introduction to social network analysis for business value using statistical optimization and decision theory; and foundation for analyzing online search and conversation data for market sensing, sentiments, product quality, reputation, recommendations, and brand awareness. Management Information

Systems 373 (Topic 23) and Business Analytics 372 (Topic 23) may not both be counted. Offered on the letter-grade basis only.

**Topic 24: Mobile Apps and Web Services.** An overview of mobile and web services technology models and architectures. Only one of the following may be counted: Management Information Systems 365, 373 (Topic: Mobile Apps & Web Services), 173, 273, 373 (Topic 24). Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 333K.

**Topic 25: User Generated Content Analytics.** Designed to showcase the virtually unlimited opportunities that exist today to leverage the power of user generated content analytics. Focuses on a gamut of questions ranging from strategic to operational matters pertaining to a firm's social media initiatives, metrics to capture relevant outcomes, and predictive analysis to link social media chatter to business performance. Only one of the following may be counted: Management Information Systems 373 (Topic: User Generated Content Analytics), 373 (Topic 25), Business Analytics 372 (Topic 4). Offered on the letter-grade basis only.

**Topic 26: Health Care Analytics.** Explore key management challenges and how data may be leveraged to guide decisions and improve operations, with the unifying theme of providing health care services in a manner that leads to lower cost and higher quality. Only one of the following may be counted: Management Information Systems 373 (Topic: Healthcare Analytics), 373 (Topic 26), Operations Management 337 (Topic: Healthcare Analytics), 337 (Topic 8), Business Analytics 372 (Topic 17). Offered on the letter-grade basis only.

### **MIS 374. Business System Development.**

Restricted to students in a business major. Provides foundation in business system analysis, project management, planning, design, and implementation using basic business knowledge and computer skills. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Seventy-five semester hours of college coursework, including Management Information Systems 333K.

### **MIS 375. Strategic Information Technology Management.**

Restricted to students in a business major. Designed to develop an understanding and appreciation for the role of information technology in the context of a firm's strategy. Explores the impact of information technology on the economy and business performance, the emergence of electronic business applications and organizational and market transformation, and the nature of technology-driven business models and strategies. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **MIS 179, 379. Independent Research in Management Information Systems.**

Restricted to students in a business major. Conference course. Only one of the following may be counted: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Risk Management 179, 379. Prerequisite: Eighteen hours of coursework in business and economics, six of which must be upper-division; Management Information Systems 304 and 325 with a grade of at least B- in each, and consent of instructor; and written approval before the first meeting of the course from the department chair's office, on forms provided for that purpose.

## Graduate Courses

### MIS 380. Seminar in Organizational Communication.

Selected topics in organizational communication, written and oral. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Research Methodology in Business and Organizational Communication.**

**Topic 2: Projects, Proposals, and Presentations.** Communicating effectively in business using advanced writing and presentation concepts and techniques to increase individual and team effectiveness.

**Topic 3: Advanced Report Writing, Professional Reports, and Other Scholarly Papers.**

### MIS 180D, 280D, 380D. Database Management.

Explore designing, building, and implementing a relational database to improve company operations and reporting. Examine how databases affect analytics and app development. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester.

Prerequisite: Graduate standing and consent of instructor.

### MIS 380N. Topics in Information Management.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**Topic 2: Managing Information.** Understanding, designing, and controlling the information processing activities of an organization. Complements Business Administration 380C by focusing on information systems rather than information technology. Includes business intelligence, knowledge management, data modeling, group decision support systems, and electronic commerce. Offered on the letter-grade basis only. Additional prerequisite: Business Administration 380C.

**Topic 3: Business Process Excellence.** Emerging technology, data and process modeling (flow focus for integrated applications), reengineering, and change management. Offered on the letter-grade basis only. Additional prerequisite: Business Administration 380C.

**Topic 4: Digital Economy and Commerce.** Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 380N (Topic 2) and credit or registration for Management Information Systems 380N (Topic 3).

### MIS 180P, 280P, 380P. Problem Solving and Programming.

Explore programming skills for creating easy-to-maintain systems for business applications. Examine object-oriented and structured methodologies with Python. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### MIS 181N, 281N, 381N. Topics in Information Systems.

Selected topics in information technology and management of information systems development. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Introduction to Data Management.**

**Topic 2: Research in Information Systems: Organizational and Behavioral Perspectives.**

**Topic 3: Strategic Analysis for High-Tech Industries.** Management 185, 285, 385 (Topic 9) and Management Information Systems 181N, 281N, 381N (Topic 3) may not both be counted. Additional prerequisite: Management Information Systems 380N (Topic 2: Managing Information), 380N (Topic 3: Managing Systems), and credit

or registration for Management Information Systems 380N (Topic 4: Digital Economy and Commerce).

**Topic 4: Decision Support Systems.**

**Topic 5: Information Systems Design and Implementation.** Additional prerequisite: Management Information Systems 380N (Topic 2: Managing Information), 380N (Topic 3: Managing Systems), and credit or registration for Management Information Systems 380N (Topic 4: Digital Economy and Commerce).

**Topic 6: Research Seminar.**

**Topic 7: Information and Knowledge Management.** Additional prerequisite: Management Information Systems 380N (Topic 2: Managing Information), 380N (Topic 3: Managing Systems), and credit or registration for Management Information Systems 380N (Topic 4: Digital Economy and Commerce).

**Topic 8: Managing Disruptive Innovations.** Focuses on the management of disruptive technologies, including analyzing whether an emerging technology is sustaining or disruptive, identifying new markets for disruptive technologies, justifying investments in disruptive technologies, implementing disruptive technologies, and appropriating value from them.

**Topic 9: Change Management Practicum I.** Project-oriented course focusing on design of organizational change.

**Topic 10: Change Management Practicum II.** Project-oriented course focusing on implementation of organizational change. Additional prerequisite: Management Information Systems 381N (Topic 9).

**Topic 11: Research in Information Technology.**

**Topic 12: Advanced Information Systems Readings.**

**Topic 13: Advanced Data Communications.** Additional prerequisite: Management Information Systems 381N (Topic 8).

**Topic 14: Global Information Technology Management.**

**Topic 15: Introduction to Electronic Commerce.**

**Topic 16: Information Systems Projects.**

**Topic 17: Client/Server Development.**

**Topic 18: Innovation, Technology, and Commercialization.**

**Topic 19: Technology Transfer: Theory and Practice.**

**Topic 20: Cross-Cultural Issues in Information Systems.**

**Topic 21: Seminar in Multimedia Systems.**

**Topic 22: Information Technology Strategy and Services.** Additional prerequisite: Management Information Systems 380N (Topic 2: Managing Information), 380N (Topic 3: Managing Systems), and credit or registration for Management Information Systems 380N (Topic 4: Digital Economy and Commerce).

**Topic 23: E-Business: Strategy and Policy.** The responsibilities of the strategist for choosing, developing, and managing an overall e-business firm strategy in uncertain market, technology, and policy environments.

**Topic 24: Global E-Business: Theory and Cases.** Analysis of case studies, incorporating Oracle and other Web-based distributed computing solutions. Additional prerequisite: Consent of instructor.

**Topic 25: E-Security and E-Forensic Frameworks.** Discussion and hands-on use of current Web and distributed computing security software and e-forensic solutions. Additional prerequisite: Consent of instructor.

**Topic 26: Research Methods in Information Systems.** Restricted to doctoral students. Overview of research methods used to study information systems problems. Fundamental concepts and criteria for use with and evaluation of quantitative and qualitative, positivist and interpretive research methods. Current state-of-the-art applications.

**Topic 27: Strategies for Networked Economy.** Analyzes the competitive dynamics of platform-mediated networks; explores innovations like cloud computing in supporting network-based competition, the implications of information technology-enabled global sourcing, and business intelligence for business value and competitive advantage; and discusses the role of information

technology in business transformation and making a case for information technology investments.

**Topic 28: Data Management.** Explore general database concepts such as E-R modeling, relational database design, and advanced SQL. Design and develop mission-critical web-based business applications using databases. Explore data warehouse design and advanced analytics functions within SQL. Management Information Systems 181N, 281N, 381N (Topic 28) and 284N (Topic: Data Management) may not both be counted.

### **MIS 382N. Topics in Information Management.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Managing Financial Information.** Data modeling and information management for investment analysis and financial systems.

**Topic 2: E-Business Change.**

**Topic 3: E-Business Application Development.**

**Topic 4: Cross-Functional Systems Integration.** Prerequisite: Management Information Systems 380N (Topic 2), 380N (Topic 3), and credit or registration for Management Information Systems 380N (Topic 4).

**Topic 5: Managing Complexity.**

**Topic 6: Computer Auditing and Systems Security.**

**Topic 7: Project Management in Fast-Cycle Environments.**

**Topic 8: Balanced Scoreboard: An Information Systems Perspective.**

Theory and tools that support the design and implementation of balanced scoreboard evaluation systems.

**Topic 10: Data Mining for Marketing.**

**Topic 11: Business Intelligence Capstone.** Explores foundations of business analytics related to database management, data analysis techniques, and business decision making to solve a business problem of a client. Additional prerequisite: Consent of instructor.

**Topic 12: Social Media Analytics.** An introduction to social network analysis for business value using statistical optimization and decision theory, including the foundation for analyzing online search and conversation data for market sensing, sentiments, product quality, reputation, recommendations, and brand awareness. Additional prerequisite: Consent of instructor.

**Topic 13: Predictive Analytics and Data Mining.** Management Information Systems 382N (Topic 9: Business Data Analytics with Data Mining) and 382N (Topic 13) may not both be counted.

**Topic 14: Business Data Science.** An introduction to basic concepts, methodology, algorithms, and technology used in business analytics and decision making. Explore concepts from probabilistic modeling, analysis and experimental design. Examine the basics of modern regression and classification, clustering, visualization, dimensionality reduction, A/B Testing and an introduction to deep learning. Management Information Systems 382N (Topic: Business Data Science) and 382N (Topic 14) may not both be counted.

### **MIS 383M. Supply Chain Management for Executives.**

Restricted to students in the Executive MBA Program. Examine frameworks for understanding how to transform supply chain strategy in the face of pressures from technological, social, and political disruption. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **MIS 383N. Topics in Information-Intensive Business Processes.**

Topics in management of information in specific industries or application areas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Health Care Management.**

**Topic 2: Health Services Seminar.**

**Topic 3: Customer Insights.**

**Topic 4: Supply Chain Management.**

**Topic 5: Computer Tools for Investment Science.**

**Topic 6: Trading-Floor Technology.**

**Topic 10: Practicum in Multimedia Systems Development.** Restricted to MBA and MPA students who have chosen the information management concentration. Additional prerequisite: Business Administration 380C and consent of instructor.

**Topic 12: E-Business Innovation.**

**Topic 13: Managing Innovation in a Global Company.** Examines innovation-based business strategies that rely on internal and external sources, processes in different organization forms, and market structures.

### **MIS 184N, 284N, 384N. Topics in Business Analytics.**

Restricted to students admitted to the Master of Science in Information, Risk, and Operations Management. Selected topics in business analytics. One, two, or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate Standing; additional prerequisites vary with the topic.

### **MIS 385. Management Information Systems.**

Restricted to students in the MS in Information Technology and Management Program. Overview of hardware and software life cycles; in-depth considerations of program design, including experience programming for large-scale computer systems in COBOL, FORTRAN, and/or BASIC. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **MIS 185N, 285N, 385N. Topics in Information Technology and Management.**

Restricted to students admitted to the Master of Science in Information Technology and Management program. Selected topics in information technology and management. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Big Data and Distributed Programming.** Explore a range of subjects required for developing modern applications that operate over vast data sets that are potentially distributed in nature. Consider alternative technologies and architectures for working with big data, examining the pros and cons of the different approaches. Management Information Systems 284N (Topic: Big Data/Distr Programming) and 185N, 285N, 385N (Topic 1) may not both be counted.

**Topic 2: Emerging Technologies I.** Explore all aspects of the Internet of Things (IoT) product life-cycle. Interface with the devices (sensors/actuators) that collect data and affect the environment. Explore network protocols for communication with these constrained devices. Examine programming of the back-end services that host, manipulate and disseminate the collected data. Study the development of apps that facilitate human interaction with these devices and the analysis of the data they produce. Examine security, privacy and performance considerations specific to IoT. Management Information Systems 284N (Topic: Emerging Technologies I) and 185N, 285N, 385N (Topic 2) may not both be counted.

**Topic 3: IT Security, Policy, and Compliance.** Explore the prevention and mitigation of data security and privacy risks in newly designed digital artifacts through IT governance, risk, and control frameworks as well as relevant laws, regulations, and industry standards. Management Information Systems 382N (Topic: IT/Secur/Policy/Compliance) and 185N, 285N, 385N (Topic 3) may not both be counted.

**Topic 4: IT Capstone.** Develop real-life business and social solutions using emerging information technologies. Engage with industry partners to explore business context for IT Capstone projects.

Management Information Systems 382N (Topic: IT Capstone) and 185N, 285N, 385N (Topic 4) may not both be counted.

**Topic 5: Cognitive Computing.** An overview of convolutional neural networks, recurrent neural networks and generative adversarial networks. Explore deep learning and artificial neural networks. Applications include computer vision, image and time series modeling as well as computational aspects of deep learning over big datasets.

Utilize Python and Tensorflow, among other tools. Management Information Systems 284N (Topic: Cognitive Computing) and 185N, 285N, 385N (Topic 5) may not both be counted.

**Topic 6: Strategic IT and Change Management.** Explore the strategic management of new IT-embedded product and service innovations and their incorporation into the digital business ecosystems of organizations. Management Information Systems 284N (Topic: Strat IT and Change Mgmt) and 185N, 285N, 385N (Topic 6) may not both be counted.

**Topic 7: IT and Supply Chain Management.** Examine the role of Information Technology in managing Supply Chains. Explore the IT capabilities needed by firms to coordinate their operations, collaborate with business partners and manage uncertainty. Illustrate the role of technologies and tools like ERP platform, ABAP programming, XML, web services, distributed computing and machine learning to improve the performance of supply chains. Management Information Systems 284N (Topic: IT and Supply Chain Mgmt) and 185N, 285N, 385N (Topic 7) may not both be counted.

**Topic 8: Design Methods.** Utilize design tools and methods to understand user needs, frame business opportunities, and design solutions. Examine design from both organizational and technical perspectives. Conduct research with end users, synthesize data, prototype solution ideas, and communicate compelling stories. Undertake design challenges that focus on emerging information technologies, including the internet of things (IoT), cognitive computing, AI, cloud, mobile, and 3D/4D printing. Management Information Systems 382N (Topic: Design Methods) and 185N, 285N, 385N (Topic 8) may not both be counted.

**Topic 9: Advanced Programming and App Development.** Explore various approaches to modern app development, including required advanced programming and software engineering concepts. Explore approaches to app development ranging from native platform programming through programming frameworks that allow cross-platform development, to high-level approaches based on web frameworks. Management Information Systems 382N (Topic: Adv Programming/App Devel) and 185N, 285N, 385N (Topic 9) may not both be counted.

**Topic 10: User Generated Content Analytics.** Generate business and social insights from user-generated content (e.g., text, images, video, etc.) through the use of text analytics, sentiment analysis, visualization techniques, etc. Management Information Systems 381N (Topic: User Genrtd Content Anlytcs) and 185N, 285N, 385N (Topic 10) may not both be counted.

**Topic 11: Advanced Data Mining and Web Analytics.** Examine a variety of data mining and machine learning techniques for descriptive, predictive and prescriptive analytics. Explore approaches to analyzing different types of information from the Web (web structure, content, usage). Management Information Systems 382N (Topic: Advanced Mining/Web Analytics) and 185N, 285N, 385N (Topic 11) may not both be counted.

**Topic 12: Healthcare IT and Analytics.** Design new healthcare solutions using emerging information technologies such as Internet of Things, cognitive computing, artificial intelligence, the cloud, mobile, and 3D and 4D printing.

**Topic 13: Emerging Technologies II.** Build a strong business and technical foundation for blockchain. Discuss business inefficiencies that can be addressed by blockchain technology. Examine cryptology and distributed computing that blockchain systems rely on, including an overview of Bitcoin. Explore current research problems, perform programming assignments, lead discussions, and hear presentations from industry and academic researchers. Management Information Systems 382N (Topic: Emerging Technologies II) and 185N, 285N, 385N (Topic 13) may not both be counted.

**Topic 14: Programming Blockchain.** Cover the development of the bitcoin protocol from scratch. Explore basic libraries to build the protocol using a step-by-step approach. Examine the primary and secondary aspects of scaling, mining and operating a bitcoin protocol based system. Management Information Systems 284N (Topic: Programming Blockchain) and 185N, 285N, 385N (Topic 14) may not both be counted.

### **MIS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in information, risk, and operations management and consent of the graduate adviser; for 698B, Management Information Systems 698A.

### **MIS 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in information, risk, and operations management and consent of the supervising faculty member and the graduate adviser.

### **MIS 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Manufacturing Systems Engineering Courses**

## **Manufacturing Systems Engineering: MFG**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **MFG 197, 397, 597, 697. Research Problems.**

Problem selected by the student with approval of the graduate adviser. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. Prerequisite: Graduate standing in manufacturing systems engineering and consent of the graduate adviser.

#### **MFG 397K. Advanced Studies in Manufacturing Systems Engineering.**

Selection of topics based on needs of an adequate number of students. The equivalent of three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in manufacturing systems engineering and consent of instructor.

**Topic 1: Advanced Packaging Materials.**

**Topic 2: Signal Integrity in High-Speed Digital Systems.**

**Topic 3: Thermal Management in Packaging.**

### **MFG 397M. Graduate Research Internship.**

Research associated with enrollment in the Graduate Research Internship Program (GRIP). Prerequisite: Graduate standing and consent of instructor and the dean of the Cockrell School of Engineering.

### **MFG 197S. Graduate Seminar in Technical Communication.**

The master's degree program in manufacturing systems engineering includes three semester hours in this course. Practice and application of technical communication skills in engineering. The equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 1: Graduate Seminar in Technical Communication I.** Offered in the fall semester only.

**Topic 2: Graduate Seminar in Technical Communication II.**

**Topic 3: Individual Instruction in Technical Communication.** Additional prerequisite: Credit or registration for Manufacturing Systems Engineering 197S (Topic 1) and 197S (Topic 2).

### **MFG 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in manufacturing systems engineering and consent of the graduate adviser; for 698B, Manufacturing Systems Engineering 698A.

### **MFG 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in manufacturing systems engineering and consent of the graduate adviser.

## **Professional Courses**

# **Marine Science Courses**

## **Marine Science: MNS**

### **Lower-Division Courses**

#### **MNS 101. Seminar in Marine Science.**

Overview of the depth and breadth of marine and freshwater science. Introduction to research opportunities at the university. One lecture hour a week for one semester. Biology 101C (Topic: Seminar in Marine Science) and Marine Science 101 may not both be counted. Prerequisite: None

#### **MNS 307 (TCCN: GEOL 1345, GEOL 1445). Introduction to Oceanography.**

Introduction to the sciences of oceanography: geological, physical, and biological. Two lecture hours and two laboratory hours a week for one semester.

#### **MNS 308. Humans and a Changing Ocean.**

The consequences of human-induced alteration of the marine environment including the impact on fisheries, marine mammals, food-web changes, and changes in species composition and ecological function will be explored. Designed for non-science majors. Two lecture hours and two laboratory hours a week for one semester. Marine Science 309 (Topic: Humans and a Changing Ocean) and 308 may not both be counted. Prerequisite: Marine Science 307 (or Geological Sciences 307).

#### **MNS 309. Topics in Marine Science.**

Designed for nonscience majors. Selected topics in marine science, including marine biology, marine chemistry, and physical oceanography.

Two lecture hours and one and one-half laboratory hours a week for one semester. May not be counted toward a degree in marine science. May be repeated for credit when the topics vary. Prerequisite: Marine Science 307.

### **MNS 310. Fundamentals of Marine Science.**

Designed for students pursuing a degree option in Marine and Freshwater Science. In-depth introduction to physical, chemical, geological, and biological processes in marine systems. Three lecture hours a week for one semester. Prerequisite: The following with a grade of at least a C- in each: Biology 311D or 315H, or 301L and 301M; and Chemistry 302 or 302H, or Chemistry 304K and 305.

## **Upper-Division Courses**

### **MNS 320. Marine Ecology.**

Study of ecological processes at different levels of integration in marine ecosystems. Three lecture hours a week for one semester. Prerequisite: Biology 311D, and Chemistry 302 or 302H.

### **MNS 120L. Laboratory Studies in Marine Ecology.**

A laboratory course with two weekend field trips to the Marine Science Institute at Port Aransas to perform ecological studies in the Texas coastal zone. Two weekend field trips, with pre- and post-field trip laboratory hours required. Prerequisite: Credit or registration for Marine Science 320.

### **MNS 440. Limnology and Oceanography.**

Same as Biology 456L. An introduction to the study of the interactions between aquatic organisms and their environments. Two lecture hours and six laboratory hours a week for one semester. Prerequisite: Chemistry 302 or 302H; and the following with a grade of at least C-: Biology 325 or 325H, and Biology 206L, 208L, 226L, or Environmental Science 311.

### **MNS 344K. Marine Mining and Minerals.**

Same as Geological Sciences 344K. Overview of seafloor mineral deposits, their exploration, and mining. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Geological Sciences or the Bachelor of Science in Environmental Sciences degrees. Prerequisite: Geological Sciences 401 or 303, 416K, and 416M.

### **MNS 148, 348. Training Cruise(s).**

May be repeated for credit when the topics vary.

#### **Topic 1: Training Cruise(s): Research in Biological Oceanography.**

One or more cruises of one to several days each to collect physical, chemical, oceanographic, and biological data relevant to biological processes in the sea. Preparatory instruction and post-cruise sample processing and analysis. Marine Science 148, 348 (Topic 1) and 152R may not both be counted. Additional prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

**Topic 2: Marine Geology and Geophysics Field Course.** Hands-on, team-based instruction in the collection and processing of marine geological and geophysical data along the Gulf of Mexico coast. For Marine Science 148, one lecture hour and one laboratory hour a week for one semester. For Geological Sciences 348K and Marine Science 348, one lecture hour and four laboratory hours a week for one semester with additional hours to be arranged. Only one of the following may be counted: Geological Sciences 348K, 397F, Marine Science 348 (Topic 2). Fulfills the field experience requirement for some geological sciences degree programs. Students should contact the Department of Geological Sciences before registering. Additional prerequisite: For geological sciences majors, Geological Sciences

420K or 320L with a grade of at least C-, and consent of instructor; Geological Sciences 416M and 465K are recommended; for others, Marine Science 307 and 354F with a grade of at least C- in each, and consent of instructor.

### **MNS 352. Principles of Marine Science.**

Lectures, laboratory, and fieldwork. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

**Topic 9: Endocrinology.** Endocrinology, with special reference to lower vertebrates and evolution of control systems. Marine Science 352 (Topic 9) and 382 (Topic 9: Endocrinology) may not both be counted. May count as zoology. Prerequisite: Previous courses in physiology and consent of instructor.

**Topic 12: Adaptive Physiology of Marine Organisms.** Selected topics in the comparative physiology of marine organisms and their environmental adaptations. Prerequisite: Previous course in cell physiology or consent of instructor.

**Topic 13: Microclimatology.** Physical and thermal characteristics of the atmospheric surface layer, with particular reference to coastal environments.

**Topic 16: Ocean Engineering.** Description of ocean waves and tides, methods of wave forecasting, classroom and field exercises. Prerequisite: Consent of instructor.

**Topic 18: Marine Atmospheric Chemistry.** Atmospheric particle chemistry; sea-surface films, atmospheric organic matter; air-sea chemical fractionation; carbon, nitrogen, sulfur cycles. Prerequisite: Consent of instructor.

**Topic 20: General Marine Phycology.** Survey of benthic algae and phytoplankton of the Texas coast; systematics, morphology, life history and culturing techniques.

**Topic 21: Ecology of Marine Fungi.** Biology of the fungi with emphasis on ecological, morphological, and developmental aspects and culturing techniques.

**Topic 22: Oceanography.** Consideration of current understanding of the chemistry and biology of the oceans.

### **MNS 352C. Estuarine Ecology.**

Explores general ecological principles of estuarine environments in Texas including physiography, hydrography, and plant and animal community structure and productivity. The equivalent of three lecture hours a week for one semester; additional lecture and field/lab hours may be required. Marine Science 352 (Topic 8) and 352C may not both be counted. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 352D. Marine Botany.**

Exploration of the marine algae and seagrasses of the south Texas coast, with emphasis on their taxonomy, physiology, and ecology; may include field trips to representative coastal habitats. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 352E. Marine Conservation Biology.**

Explores how human activities influence the natural functioning and diversity of marine ecosystems and examines conservation efforts aimed to promote the sustainability of coastal habitats; may include several field excursions to local/regional marine ecosystems including sensitive coastal marshes and seagrass communities. Encourages the development of creative and critical thinking skills through numerous classroom activities focused on developing holistic understandings of

marine ecosystems and the complexities of conservation science. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Marine Science 353 (Topic: Marine Conservation Biology) and 352E may not both be counted. Prerequisite: Biology 311D and Chemistry 302 or 302H with a grade of at least C- in each.

### **MNS 152L, 252L. Principles of Marine Science: Laboratory Studies.**

A laboratory course with one-day field trips (which may include weekends) to local estuarine and coastal habitats. Includes pre- and post-field trip laboratory hours. For each semester hour of credit earned, three or four field/laboratory sessions, scheduled throughout the semester. May be counted toward the Bachelor of Science in Biology (Option III: Marine and Freshwater Biology) and toward other undergraduate degrees in biology. May be repeated for credit when the topics vary. Prerequisite: Credit or registration for Marine Science 352.

### **MNS 152R. Marine Science Research and Reporting.**

Reviews the planning, conduct, and communication of marine science research, including hypothesis generation, experimental design, data analysis, and scientific writing and presentation. The equivalent of one lecture hour a week for one semester. Marine Science 148, 348 (Topic 1) and 152R may not both be counted. Prerequisite: Upper-division standing and concurrent enrollment in Marine Science 170, 270, or 370.

### **MNS 152S, 252S. Principles of Marine Science: Undergraduate Seminar.**

Guest lectures by local and visiting research scientists on a variety of topics in marine and environmental science. Each seminar is followed by a separate one-hour discussion to give students an opportunity to meet directly with the scientist. For each semester hour of credit earned, one lecture/discussion a week for one semester. May be counted toward the Bachelor of Science in Biology (Option III: Marine and Freshwater Biology) and toward other undergraduate degrees in biology. May be repeated for credit when the topics vary.

### **MNS 152T, 252T. Principles of Marine Science: Special Topics.**

Advanced research topics in marine science relevant to critical habitats, organisms, or processes. The equivalent of one or two lecture hours a week for one semester; additional lecture and field/lab hours may be required. May be counted toward the Bachelor of Science in Biology (Option III: Marine and Freshwater Biology) and toward other undergraduate degrees in biology. May be repeated for credit when the topics vary. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 353. Topics in Marine Science.**

The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. May be repeated for credit when the topics vary. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

**Topic 2: Fish Adaptations to Coastal Ecosystems.** Quantitative ecological comparisons of zoogeographical abundance and distribution with population, metabolic, and growth parameters. Additional prerequisite: Fifteen semester hours of coursework in biology and/or zoology.

**Topic 4: Current Research.** Research instruction/participation in marine science. Laboratory and field activity with emphasis on faculty contact.

**Topic 5: Seafloor Mining.** Study of seafloor mineral resources, including problems and policies related to exploration, mining, environmental concerns, assessment, and industrial development.

**Topic 6: Marine Ecology.** Independent study in marine ecology, literature research, and comprehensive writing. Report required. Additional prerequisite: Upper-division standing in a natural science, engineering, or education.

**Topic 7: Marine Sedimentology.** Selected topics and problems concerning the depositional processes, controls, and distribution of marine sediments.

**Topic 8: Marine Chemistry.** Study of the processes controlling the chemistry of natural waters, the oceans as a chemical system, and the impact of human activities on these systems.

**Topic 14: Marine Isotope Geochemistry.** The use of isotopes (stable, radiogenic, uranium series, and anthropogenic) in the study of marine science.

**Topic 15: Interdisciplinary Classroom Field Methods.** Uses the interdisciplinary nature of marine science to focus on inquiry-based instruction, constructivist-oriented teaching strategies, and field explorations.

**Topic 17: Marine Fish Physiology.** Physiology of major organ systems of marine fishes, with emphasis on adaptations to marine environments. Includes osmoregulation, nutrition, circulation, excretion, reproduction, sensory physiology, and endocrine control. Additional prerequisite: Biology 311D, and Chemistry 302 or 302H.

### **MNS 354. Marine Invertebrates.**

Study of invertebrate taxonomy, structure, behavior, and ecology; may include field sampling and laboratory studies of invertebrate habitats of the Texas coast. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 354C. Biology of Fishes.**

Anatomy, physiology, behavior, life history, taxonomy, and distribution of fishes; may include field sampling and laboratory studies of the coastal biota. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 354E. Aquatic Microbiology.**

Ecology, physiology, distribution, and growth of heterotrophic and autotrophic bacteria and fungi in waters and sediments. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Marine Science 354E and 384E may not both be counted. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 354F. Marine Geology.**

Survey of the origin, structure, stratigraphy, and sedimentology of marine basins and continental margins. Three lecture hours a week for one semester. Marine Science 354F and 384F may not both be counted. Prerequisite: Upper-division standing; and six semester hours of coursework in chemistry, marine science, or geological sciences, or consent of instructor.

### **MNS 354J. Marine Chemistry.**

Introduction to marine and environmental chemistry, including the distribution of elements in seawater, the geochemical and oceanographic processes controlling and affected by these distributions, and the effects of human activities on marine chemical processes. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 354Q. Marine Environmental Science.**

Application of the principles of marine science to the study of environmental issues: toxicology, biogeochemical cycles, and the biological and ecological impacts of xenobiotic materials in the coastal zone. The equivalent of two lecture hours and one laboratory hour a week for one semester; additional lecture and field/laboratory hours may be required. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 354T. Biological Oceanography.**

Introduction to the organisms in the sea, their adaptations to the environment, and the factors that control their distribution and abundance; may include laboratory and field work with organisms found in the coastal waters of Texas. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Prerequisite: The following with a grade of at least C-: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 354U. Biology of Sharks, Skates, and Rays.**

Ecology, anatomy, and physiology of elasmobranch fishes. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 355C. Physiology of Fishes.**

Physiology of major organ systems of both marine and freshwater fishes. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 355E. Marine Fisheries Ecology.**

Explore a broad understanding of fish and fisheries science. Examine fundamental information on fish biology and ecology pertaining to diet, growth, and reproduction with fisheries' specific information that includes historical perspectives, methodology, and overall management strategies. Three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Marine Science 353 (Topic: Fisheries Ecology) and 355E may not both be counted. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H and Chemistry 302 or 302H.

### **MNS 356. Ecosystem Oceanography.**

An exploration of interconnections within and among marine ecosystems, as well as their linkages to climate, human activity, and adjacent freshwater and terrestrial environments. Emphasis will be placed on Gulf of Mexico ecosystems; may include hands-on field and laboratory activities. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Marine Science 352 (Topic: Ecosystem Oceanography) and 356 may not both be counted. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 357. Marine Phytoplankton Diversity.**

The taxonomy of the major phytoplankton groups, their physiology, and their role in marine ecosystem; may include field and/or laboratory hours. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Marine Science 353 (Topic: Diversity Marine Phytoplankton) and 357 may not both be counted. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 367K. Human Exploration and Exploitation of the Sea.**

Review of the history of ocean exploration including major oceanographic expeditions. Discussion of current topics in ocean exploration and exploitation of marine resources, the impact of resource exploitation on biological systems, and the development of marine policy. An oral presentation is required. The equivalent of three lecture hours a week for one semester; additional lecture and field/laboratory hours may be required. Prerequisite: The following with a grade of at least C- in each: Biology 311D or 315H, and Chemistry 302 or 302H.

### **MNS 170, 270, 370. Special Studies in Marine Science.**

Supervised individual instruction and research in marine science field and laboratory techniques. The equivalent of one, two, or three class hours a week for one semester, at the Marine Science Institute at Port Aransas. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in science, and a University grade point average of at least 2.50.

## **Graduate Courses**

### **MNS 180, 380, 680. Research in Marine Science.**

Restricted to students in marine science. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **MNS 481C. Marine Ecosystem Dynamics.**

Interactions between organisms and the physical processes that regulate productivity and distribution of marine life in oceanic and coastal ecosystems. Four lecture hours a week for one semester. Prerequisite: Graduate standing; and either consent of instructor or the following: six semester hours of coursework in biological sciences chosen from Biology 311C, 311D, and the equivalent; and Chemistry 301 and 302, or the equivalent.

### **MNS 382. Principles of Marine Science.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 6: Marine Ichthyology.** Systematics of fishes, including major classifications, comparative anatomy, embryology, and general distribution. Additional prerequisite: Comparative vertebrate anatomy or consent of instructor.

**Topic 9: Endocrinology.** Endocrinology, with special reference to lower vertebrates and the evolution of control systems. Marine Science 352 (Topic 9) and 382 (Topic 9) may not both be counted. Prerequisite: Courses in physiology and consent of instructor.

**Topic 14: Biology of Seagrasses.** Analyses of plant and animal characteristics of seagrass ecosystems, including biomass, reciprocal salinity transplants, productivity.

### **MNS 482C. Marine Biogeochemistry.**

Study of chemical, biological, geological, and physical processes that influence cycling of bioactive elements in marine waters and sediments. Four lecture hours a week for one semester. Prerequisite: Graduate standing; and either consent of instructor or the following: Physical Science 303 and 304, or the equivalent; Chemistry 301, and 302 or the equivalent; and six semester hours of coursework in biological sciences chosen from Biology 311C, 311D, and the equivalent.

### **MNS 483C. Adaptations to the Marine Environment.**

The physiological basis for organismal and population-level responses to marine environments. Four lecture hours a week for one semester. Prerequisite: Graduate standing; and either consent of instructor or the following: six semester hours of coursework in biological sciences

chosen from Biology 311C, 311D, and the equivalent; and Chemistry 301 and 302, or the equivalent.

### **MNS 384C. Benthic Ecology.**

Interactions among organisms, sediments, and physical processes of estuarine and oceanic bottoms. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Marine Science 354 or the equivalent, and consent of instructor.

### **MNS 384E. Marine Microbial Ecology.**

Metabolism of photosynthetic and chemosynthetic microorganisms in the sea. Three lecture hours and eight laboratory hours a week for one semester. Marine Science 354E and 384E may not both be counted. Prerequisite: Graduate standing; six semester hours of coursework in biological science chosen from Biology 311C, 311D, or the equivalent; Chemistry 301 and 302, or the equivalent; and consent of instructor.

### **MNS 384F. Marine Geology.**

Development of ocean basins; marine and coastal depositional environments, processes, and sedimentary parameters; marine field techniques. Three lecture hours a week for one semester. Marine Science 354F and 384F may not both be counted. Prerequisite: Graduate standing; six semester hours of coursework in general chemistry or mineralogy; six semester hours of coursework in biology or paleontology; and six semester hours of upper-division coursework in geological sciences or consent of instructor.

### **MNS 384J. Marine Ecology.**

Principles of competition and of predator-prey, herbivore-plant, and reproductive interactions within diverse marine phyla. Three lecture hours a week for one semester. Prerequisite: Graduate standing, a basic course in biological science, and consent of instructor.

### **MNS 384K. Ecology of Fishes.**

Organismal, population, and community ecology of marine and freshwater fishes. Three lecture hours a week for one semester. Prerequisite: Graduate standing in marine science or biological sciences; and consent of instructor.

### **MNS 384L. Marine Chemistry.**

Chemical processes in the sea. Three lecture hours and eight laboratory hours a week for one semester. Prerequisite: Graduate standing, general physics, and six semester hours of upper-division coursework in chemistry.

### **MNS 384T. Biological Oceanographic Processes.**

An advanced course in biological processes in oceanic and coastal waters, with emphasis on empirical and theoretical concepts of marine ecosystem dynamics, primary and secondary production, and detrital cycling. Three lecture hours and eight laboratory hours a week for one semester. Prerequisite: Graduate standing; and either consent of instructor or the following: six semester hours of coursework in biological sciences chosen from Biology 311C, 311D, and the equivalent; and Chemistry 301 and 302, or the equivalent.

### **MNS 384U. Reproductive Physiology of Fishes.**

Endocrine and environmental control of reproductive cycles in teleost fishes. Three lecture hours a week for one semester. Prerequisite: Graduate standing, a beginning course in physiology, and consent of instructor.

### **MNS 385E. Marine Macrophytes.**

A lecture, laboratory, and field course that examines the systematics, ecology, and productivity of marine macroalgae and seagrasses, strategies and seasonal patterns of growth, photosynthesis, and carbon

metabolism in relation to in situ light environments. Three lecture hours a week for one semester, with forty hours of laboratory and fieldwork. Prerequisite: Graduate standing, six semester hours of upper-division coursework in biology, and consent of instructor.

### **MNS 385F. Environmental Modeling.**

Introductory course in modeling, with emphasis on the models used in ecology, oceanography, and earth sciences. Two lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Graduate standing in marine science and consent of instructor.

### **MNS 386. Phytoplankton Ecology.**

The interactions of physiology, morphology, and behavior of microalgae with physical, chemical, and biological features of the environment as related to the distribution of marine phytoplankton. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor. Biology 478L; 448L or 455L; and 456L or 373.

### **MNS 387. Pelagic Ecosystems.**

Advanced study of processes affecting the distribution and abundance of marine planktonic and nektonic organisms, primary and secondary production in marine pelagic environments, and food web interactions in the pelagia. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **MNS 188, 388. Marine Research Training Cruise.**

Shipboard training in marine research through participation in research projects and completion of report. One five- to seven-day cruise; additional laboratory work is required for 388. Prerequisite: Graduate standing and consent of instructor.

### **MNS 191. Seminar in Marine Science.**

Recent advances in the marine sciences, discussed by students, faculty and staff members, and guest lecturers. Topics to be announced. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **MNS 193, 293, 393. Topics in Marine Science.**

Lecture, laboratory, and fieldwork. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with additional hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Biogeochemistry of Carbon.** Production, distribution, composition, and preservation of organic matter in the sea. Marine Science 183, 283, 383 (Topic 1) and Marine Science 193, 293, 393 (Topic 1) may not both be counted.

**Topic 2: Isotope Ecology.** Consideration of the stable hydrogen, carbon, nitrogen, and sulfur stable isotope ratio variations in ecological settings, including chemical fundamentals; current literature on food-webs and source studies. Marine Science 183, 283, 383 (Topic 7) and Marine Science 193, 293, 393 (Topic 2) may not both be counted. Additional prerequisite: Graduate standing in one of the natural sciences.

**Topic 3: Benthic Plants and Animals.** Interactions among organisms, sediments, and physical processes of estuarine systems, including the factors that regulate primary and secondary productivity. Marine Science 183, 283, 383 (Topic 8) and Marine Science 193, 293, 393 (Topic 3) may not both be counted.

**Topic 4: Methods in Marine Science.** Introduction through laboratory and field work to the methods of marine science and oceanographic research. Topics include small boat handling and safety; field collection of physical, chemical, and biological data; and laboratory analysis of seawater chemistry and marine organisms. Marine

Science 183, 283, 383 (Topic 10) and Marine Science 193, 293, 393 (Topic 4) may not both be counted.

**Topic 5: Global Change.** Study of natural and anthropogenically mediated changes in the earth's climate and biogeochemical cycles. Marine Science 183, 283, 383 (Topic 11) and Marine Science 193, 293, 393 (Topic 5) may not both be counted.

**Topic 6: Larval Fish Ecology.** The ecology of marine fish larvae in relation to fisheries oceanography and aquaculture. Marine Science 183, 283, 383 (Topic 12) and 193, 293, 393 (Topic 6) may not both be counted.

**Topic 7: Marine Botany.** Introduction through lectures and field work to the diversity and importance of marine vegetation of the South Texas coast. Includes the evolution, taxonomy, ecology, physiology, and trophic importance of marine vegetation. Marine Science 183, 283, 383 (Topic 13) and 193, 293, 393 (Topic 7) may not both be counted.

**Topic 8: Marine Isotope Geochemistry.** The use of isotopes (stable, radiogenic, uranium series, and anthropogenic) in the study of marine science. Marine Science 183, 283, 383 (Topic 14) and 193, 293, 393 (Topic 8) may not both be counted.

**Topic 9: Molecular Methods in Marine Science.** Introduction to the principles and methods of molecular biology and the application of molecular techniques to research in marine science. Marine Science 183, 283, 383 (Topic 15) and 193, 293, 393 (Topic 9) may not both be counted.

**Topic 10: Zooplankton Ecology.** Advanced study of the morphological, physiological, and behavioral adaptations of zooplankton to their environment. Marine Science 183, 283, 383 (Topic 16) and 193, 293, 393 (Topic 10) may not both be counted.

**Topic 11: Coastal Watersheds.** Covers water use, land use and land cover change, and climate change as they relate to biological, physical, and geochemical processes in watersheds. Includes the impact of changing watershed export on coastal ocean ecosystems. Emphasizes case studies on different regions of the United States. Marine Science 183, 283, 383 (Topic 17) and 193, 293, 393 (Topic 11) may not both be counted. Only one of the following may be counted: Law 179M, 279M, 379M, 479M, 579M, 679M (Topic: Coastal Watersheds), Law 291E, 391E, 491E (Topic 5), or Marine Science 393 (Topic 11).

### **MNS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in marine science and consent of the graduate adviser; for 698B, Marine Science 698A.

### **MNS 398T. Supervised Teaching in Marine Science.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **MNS 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Marketing Courses**

## **Marketing: MKT**

### **Lower-Division Courses**

### **Upper-Division Courses**

#### **MKT 320F. Foundations of Marketing.**

Restricted to non-McCombs School of Business majors. Introduction to basic concepts and terminology in marketing: the process of developing marketing strategy, the role of marketing activities within the firm,

external influences that affect the development of marketing strategy, and basic analytical tools appropriate to marketing decision making. Three lecture hours a week for one semester. Only one of the following may be counted: Marketing 320F, 337, 337H, 337N. May not be counted toward the Bachelor of Business Administration degree. Prerequisite: Forty-five semester hours of college coursework.

### **MKT 337. Principles of Marketing.**

Restricted to students in the McCombs School of Business. Designed to expand understanding of the marketing system and basic marketing activities and to provide a framework for marketing strategy development and implementation of marketing tools and tactics. Three lecture hours a week for one semester. Only one of the following may be counted: Marketing 320F, 337, 337H, 337N. Offered on the letter-grade basis only. Prerequisite: Credit or registration for the following: Business Administration 324 or 324H; and Statistics 371G or 371H, or Statistics 235 or 235H and Decision Science 235 or 235H.

### **MKT 337H. Principles of Marketing: Honors.**

Restricted to students in the McCombs School of Business Honors Program. Designed to expand understanding of the marketing system and basic marketing activities and to provide a framework for marketing strategy development and implementation of marketing tools and tactics. Three lecture hours a week for one semester. Only one of the following may be counted: Marketing 320F, 337, 337H, 337N. Offered on the letter-grade basis only. Prerequisite: Credit or registration for the following: Accounting 312H; and Business Administration 324H; and Economics 304K and 304L; and Statistics 371H, or Statistics 235H and Decision Science 235H.

### **MKT 337N. Introduction to Marketing in New York.**

Restricted to students studying in New York City. Experience a globally connected city. Study in New York City, home to major industries including arts and entertainment, travel and hospitality, technology, and financial services, as well as major marketing firms and agencies. Consider the marketing strategies of New York industries and develop an understanding of the marketing system and basic marketing frameworks for marketing strategy creation, and implementation of marketing tools and tactics. Three lecture hours a week for one semester. Only one of the following may be counted: Marketing 320F, 337, 337H, 337N. Offered on the letter-grade basis only.

### **MKT 338. Promotional Policies.**

Restricted to students in a business major. Analysis of the use of promotional methods in marketing: advertising, personal selling, sales promotion, and indirect promotion; their social and economic consequences; their coordination and relationship to other business functions. Three lecture hours a week for one semester. Prerequisite: Marketing 337 or 337H.

### **MKT 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in Marketing.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Marketing. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

### **MKT 354. Topics in Professional Sales and Business Development.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Marketing 320F, 337 or 337H.

**Topic 1: Building Sales Relationships.** Explore the theoretical and practical role of communication in the development of long-term client relationships. Examine the consultative sales process, including prospecting, assessing needs, handling objections, presenting, closing, and following up with clients. Investigate on how technology can help or hinder communication. Additional prerequisite: Upper-division standing.

**Topic 2: Sales Strategy and Steering.** Three lecture hours a week for one semester. Marketing 354 (Topic 2) and 372 (Topic: Sales Strategy and Steering) may not both be counted. Additional prerequisite: Marketing 320F or 337 or 337H.

**Topic 3: Analytical Tools for Sales.**

### **MKT 360, 460. Information and Analysis.**

Same as Business Analytics 360. Same as Business Analytics 460. Restricted to students in a business major. The development and analysis of information for marketing management sources. For each semester hour of credit earned, one lecture hour a week for one semester. Marketing 360, 460 and Business Analytics 360, 460 may not both be counted. Prerequisite: Marketing 337 or 337H, and Statistics 301, 301H, 309 or 309H.

### **MKT 363. Professional Selling and Sales Management.**

Policies, operation, coordination, and control of personal selling activities in marketing organizations. Three lecture hours a week for one semester. Prerequisite: Marketing 320F or 337 or 337H.

### **MKT 366P. Marketing Practicum.**

Restricted to students in a business major. Students apply skills in their major area and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise. The equivalent of three lecture hours a week for one semester. Prerequisite: Completion of forty-five semester hours of coursework and Marketing 337 or 337H.

### **MKT 370. Marketing Policies.**

Restricted to students in a business major. A capstone course focusing on case studies of advanced marketing problems, including analysis of markets, promotional planning, pricing, and distribution coordination. Designed to help the student develop a comprehensive understanding of marketing policy and strategy formulation. Three lecture hours a week for one semester. Prerequisite: Ninety semester hours of college coursework, including Marketing 337 or 337H; credit or registration for either Marketing 360 or 460, and one of the following: Accounting 353J, 366P, Business Administration 353, 353H, Finance 353, 366P, Management 347P, 353, 366P, 367P, 369P, Management Information Systems 353, 366P, Marketing 353, 366P, Operations Management 353, or 366P; and three additional semester hours of elective coursework in marketing.

### **MKT 370K. Retail Merchandising.**

Restricted to students in a business major. Designed to familiarize the student with all the activities associated with the sale of goods and services for final consumption and to provide an overview of the decisions involved in merchandising and management, including factors that influence and determine those decisions. Three lecture hours a week for one semester. Prerequisite: Marketing 337 or 337H.

### **MKT 172, 272, 372. Marketing Seminar.**

Restricted to students in a business major. Deeper-dive into principal marketing techniques and the analysis of contemporary problems. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Marketing 337 or 337H; additional prerequisites vary with topic.

**Topic 1: Market Area Decisions.**

**Topic 2: Consumer Behavior.**

**Topic 3: Implementing Marketing Concepts.** Implementation of marketing concepts in a real-world setting through participation in marketing projects with area companies. Additional prerequisite: Consent of instructor.

**Topic 4: Global Marketing.**

**Topic 5: Design Thinking for Business Innovation.** Focuses on gaining a theoretical understanding of design thinking, including: Customer-focus, cross-functional collaboration, and an iterative process for refining products and services. Intended for budding entrepreneurs and those interested in understanding the processes involved in taking a new product/service idea to market. Marketing 372.5 and 372 (Topic: Design Thinking for Busn Innov) may not both be counted.

**Topic 6: Marketing for Entrepreneurs.** Focuses on the issues facing smaller and start-up businesses, including introduction to entrepreneurship, differentiation of the offering, mass markets versus selective markets, guerilla marketing, the business model and business plan, and capital markets. Marketing 372 (Topic: Marketing for Entrepreneurs) and 372 (Topic 6) may not both be counted.

**Topic 11: Brand Management.** Addresses the strategic importance of branding and concepts, frameworks, and strategies for building, leveraging, and defending strong brands. Current opportunities and challenges in a variety of industries and markets, including consumer packaged goods, business-to-business, services, technology, online, and global. Marketing 372 (Topic: Brand Management) and 172, 272, 372 (Topic 11) may not both be counted.

**Topic 12: Contemporary Issues in Marketing.** Covers current marketing challenges including reality ethics marketing services, anticipating and using market trends, and capturing the attention of the brain. Marketing 372 (Topic: Contemporary Issues in Marketing) and 172, 272, 372 (Topic 12) may not both be counted.

**Topic 13: Integrated Marketing Communications.** Exploration of basic message development and dissemination across ever evolving media types, using a focus on the brain and emotions, as well as an intense examination of persuasion and core belief formation. Focus on group development of an IMC plan for a social issue. Marketing 372 (Topic: Integrated Marketing Communications) and 172, 272, 372 (Topic 13) may not both be counted.

**Topic 14: Pricing and Channels.** Explores the concepts, theory and latest thinking bearing on the key issues in pricing and channels, taking the perspective of the marketing manager. Provides an opportunity, through extensive case analyses and multiple assignments, to apply concepts and theory to the solution of pricing and channel problems in realistic business settings. Only one of the following may be counted: Marketing 372 (Topic: Pricing and Channels), 372 (Topic 14), Business Analytics 372 (Topic 8).

**Topic 15: Corporate Political Strategy.** A study of how the political and regulatory environment enables and constrains business activity and how individual firms and groups of firms can ethically yet effectively lobby legislatures, negotiate with regulators, create industry associations, make campaign contributions, and engage in other political activity to gain competitive advantage. Only one of the following may be counted: Business, Government, and Society 371, Marketing 372 (Topic: Corporate Political Strategy), 172, 272, 372 (Topic 15).

**Topic 16: Business to Business Marketing.** Focus on business to business marketing skills including: organizational buying and selling models; launching business to business products and services; pricing a product line; sales management and support; managing distribution partners; and social media for business to business promotion. Marketing 372 (Topic: Business to Business Marketing) and 172, 272, 372 (Topic 16) may not both be counted.

**Topic 17: Consumer Behavior in a Digital World.** Examines the core psychological processes underlying consumer decision-making and

behavior, and the impact of recent technological advancements on consumer behavior in on and offline environments. Marketing 372 (Topic: Consumer Behavior in a Digital World) 372 (Topic 17) may not both be counted.

**Topic 18: Creativity and Leadership.** Exploration of the determinants for a meaningful and fulfilling life. Marketing 372 (Topic: Creativity and Leadership) and 172, 272, 372 (Topic 18) may not both be counted.

**Topic 19: Marketing Analytics II.** Covers advanced analytics problems focusing on methodologies and their implementations, how marketing analytics allows companies to gain an advantage by serving customers better than their competitors. Marketing 372 (Topic: Marketing Analytics II) and 172, 272, 372 (Topic 19) may not both be counted.

**Topic 21: Strategic Product Management.** Explores the principles of product management including identifying new growth opportunities, assessing the health and profitability of a product portfolio, developing new products, and positioning and repositioning of current products. Analytical tools, case discussions, and real-world derived projects will be the key learning tools. Marketing 372 (Topic: Strategic Product Management) and 172, 272, 372 (Topic 21) may not both be counted.

**Topic 22: Predictive Analytics and Data Mining.** Comprehensive introduction to data mining problems and tools to enhance managerial decision making at all levels of the organization. Discuss scenarios including the use of data mining to support customer relationship management (CRM) decisions, decisions in the entertainment industry, financial trading, and even professional sports teams. No technical skills or prior knowledge required. Only one of the following may be counted: Management Information Systems 373 (Topic 17), Marketing 372 (Topic: Predictive Analytics and Data Mining), 372 (Topic 22), Business Analytics 372 (Topic 2).

**Topic 23: Data Analytics for Marketing.** Introduction to the world of making more effective marketing decisions through the use of data. Examines sources of data, methods of collecting and cleaning the data, analyzing the data, and finally presenting the data in meaningful and impactful ways. Using real-world data and applications from a variety of industries, the objective is to assist in familiarizing with the empirical and analytical tools needed to make effective marketing decisions in the age of large and plentiful datasets. Only one of the following may be counted: Marketing 372 (Topic: Data Analytics for Marketing), 372 (Topic 23), Business Analytics 372 (Topic 9).

**Topic 24: Digital Marketing.** Explore online marketing strategies; navigate online advertising, search, social media, and online privacy; and design and implement an experiment to evaluate the effectiveness of online business decisions. Marketing 372 (Topic: Digital Marketing) and 172, 272, 372 (Topic 24) may not both be counted.

**Topic 25: Data Driven Marketing.** Exploration of marketing research analytics using various types of data analytics and statistical learning models. Only one of the following may be counted: Marketing 372 (Topic: Data Driven Marketing), 372 (Topic 25), Business Analytics 372 (Topic 10).

**Topic 26: Strategy Consulting for Marketers.** Hands-on introduction to the science and art of marketing strategy consulting. Explores the consulting industry and the key concepts of successful consulting. Execution of a complete consulting engagement with an actual client. Marketing 372 (Topic: Strategy Consulting for Marketers) and 172, 272, 372 (Topic 26) may not both be counted.

**Topic 27: Reputational Risk and Crisis Management.** Exploration of what risk is, crisis management techniques, market communications, and reputational preservation via readings, cases and guest speakers. Marketing 372 (Topic: Reputational Risk and Crisis Management) and 172, 272, 372 (Topic 27) may not both be counted.

**Topic 28: Science of Good Business.** Explore what good business means in multiple ways: doing well; being good; and feeling

good. Examine theory, data, insights, and empirical evidence from behavioral sciences to learn how individuals and organizations can achieve "good" in a business context. Identify actionable practical applications, based on design thinking principles, that can actually be implemented in the workplace. Marketing 372 (Topic: Science of Good Business) and Marketing 172, 272, 372 (Topic 28) may not both be counted.

### **MKT 178, 278, 378. Marketing Micro-topics.**

Focuses on contemporary, in-demand marketing topics to help develop the foundational knowledge, hands-on experience, and skills for today's marketing ecosystem. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with topic.

**Topic 1: Data Storytelling and Visualization.** Investigate data-driven marketing, identifying stories in data and utilizing visualizations to share that story. Explore Tableau, data literacy, visualization principles, and communicating effectively using data. Marketing 178 (Topic: Data Storytelling/Visualization) and Marketing 178 (Topic 1) may not both be counted. Additional prerequisite: Twenty-four semester hours of college credit.

**Topic 2: Negotiating Sales Solutions.** Additional prerequisite: Twenty-four semester hours of college credit.

**Topic 3: International Selling.** Additional prerequisite: Twenty-four semester hours of college credit.

**Topic 4: Sales Technology and Artificial Intelligence.** Additional prerequisite: Twenty-four semester hours of college credit.

**Topic 5: Selling in High Technology Industries.** Additional prerequisite: Twenty-four semester hours of college credit.

**Topic 6: Predictive Modeling in Sales.** Additional prerequisite: Twenty-four semester hours of college credit.

### **MKT 179C, 379C. Independent Research in Marketing.**

Restricted to students in a business major. Conference course. Only one of the following may be counted: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upper-division; Marketing 337 or 337H with a grade of at least C-; and consent of instructor. A student registering for this course must obtain written approval from the department chair's office, on forms provided for that purpose, before the first meeting of the course.

## **Graduate Courses**

### **MKT 182, 282, 382. Analysis of Markets.**

Introduction to the data and tools used to analyze the business environment and enable marketing decision making. Uses real world data and problems to evaluate strategic market opportunities and assess the impact of marketing decisions in the marketplace. Discusses analytical and empirical tools that address strategic issues of market sizing, market selection, and competitive analysis, as well as product management, customer management, and marketing function management decisions. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**Topic 2: Analytical Methods in Marketing.** Basic analytical techniques that are used to improve market-oriented decisions: brand-switching, linear programming applications in advertising, competitive bidding, distribution and location models, conjoint measurement, and

multivariate data analysis for strategy formulation. The course stresses the use of the models to deal with marketing variables and problems and the acquisition of relevant data. Case analyses and projects. Offered on the letter-grade basis only.

**Topic 3: Business and Public Policy.** Provides a historical framework in which to study key issues in contemporary government and business relations in the United States and, to a limited extent, in other countries. Settings range from the Depression and the New Deal to more recent periods of social regulation of business; topics range from the role of the international oil companies to the deregulation of the airlines. Offered on the letter-grade basis only.

**Topic 4: Strategic Marketing.** Strategic marketing decisions made at the corporate and business-unit levels, and organizational issues that affect the formulation and implementation of marketing strategy; an experiential course, taught primarily through the case method and a marketing strategy computer simulation game. Offered on the letter-grade basis only.

**Topic 5: Current Topics in Consumer Marketing.** Reasons for the shift in allocation from advertising to promotion, and implications of this shift for the structure of packaged-goods marketing. Offered on the letter-grade basis only.

**Topic 6: Buyer Behavior in Global Markets.** The application of marketing strategy and buyer behavior principles in the global environment. Offered on the letter-grade basis only.

**Topic 7: Industrial Marketing.** Concepts, theories, and models from industrial marketing strategy provide the foundation for case analyses of a variety of technology-intensive firms, primarily in electronics, data processing, and pharmaceuticals. Offered on the letter-grade basis only.

**Topic 8: Product Policy and Tactics.** Tactical and strategic product decisions, with emphasis on the former. Consumer goods, with some attention to the marketing needs of industrial products and service industries; decisions about a firm's product portfolio. Uses case analyses and personal computer-oriented analytical exercises. Offered on the letter-grade basis only. Additional prerequisite: Completion of Master of Business Administration core courses.

**Topic 9: Marketing Strategy for Small Business.** Basics of marketing strategy and marketing plan development; students develop such a plan for a beginning business. Offered on the letter-grade basis only.

**Topic 11: Quality and Competitiveness.** The globalization of competition, the challenge to the United States position in the world economy, and the total quality management movement as a competitive response. Offered on the letter-grade basis only.

**Topic 12: Customer Strategy.** External resources for competitiveness, such as customer relationships that can help deliver superior quality and drive down costs. The course brings together experienced managers and students who have interned with them to explore issues underlying total quality in marketing. Offered on the letter-grade basis only. Additional prerequisite: Completion of an instructor-approved internship.

**Topic 13: Pricing and Distribution Channel Strategies.** Analysis of distribution and pricing decisions, factors that influence these decisions, and the role of pricing and distribution in the formulation of marketing strategy. Lecture/discussions, cases, and group projects. Offered on the letter-grade basis only.

**Topic 14: Marketing of Services.** Organizations that market services rather than goods; differences between tangible goods and services; unique service-marketing problems and opportunities. Offered on the letter-grade basis only.

**Topic 15: Marketing High-Tech Products.** The forces driving competition in industrial markets, with emphasis on technological products. This course focuses on honing students' analytical skills for leveraging marketing decision making. Offered on the letter-grade basis only.

**Topic 16: Project Management in Fast-Cycle Environments.** Offered on the letter-grade basis only.

**Topic 18: Leveraging Marketing Metrics.** Restricted to students in the McCombs School of Business. Examines the link between marketing decisions and financial performance. Offered on the letter-grade basis only.

**Topic 26: Predictive Analytics and Data Mining.** Restricted to students in the McCombs School of Business. Marketing 282, 382 (Topic 17: Business Data Analysis with Data Mining) and 282, 382 (Topic 26) may not both be counted. Offered on the letter-grade basis only.

**Topic 27: Behavioral Economics.** Only one of the following may be counted: Business, Government, and Society 388; Marketing 382 (Topic: Behavioral Economics); 282, 382 (Topic 27). Offered on the letter-grade basis only.

**Topic 28: Connecting with Customers in a Digital World.** Marketing 382 (Topic: Connect with Cust Digtl Wrld) and 282, 382 (Topic 28) may not both be counted. Offered on the letter-grade basis only.

**Topic 29: Consumer Behavior in a Digital World.** Marketing 382 (Topic: Consumer Behav: Digital World) and 282, 382 (Topic 29) may not both be counted. Offered on the letter-grade basis only.

**Topic 31: Corporate Governance.** Only one of the following may be counted: Management 285, 385 (Topic 62), Marketing 382 (Topic: Corporate Governance), 282, 382 (Topic 31) Offered on the letter-grade basis only.

**Topic 32: Creativity and Leadership.** Marketing 382 (Topic: Creativity and Leadership) and 282,382 (Topic 32) may not both be counted. Offered on the letter-grade basis only.

**Topic 33: Design Thinking for Business Innovation.** Marketing 382 (Topic: Dsgn Thinking For Innovatn) and 282, 382 (Topic 33) may not both be counted. Offered on the letter-grade basis only.

**Topic 34: Invisible Global Market.** Only one of the following may be counted: Advertising 391L, Latin American Studies 383, Marketing 382 (Topic: Invisible Global Market), 382 (Topic: Invisible Global Marketing) 282, 382 (Topic 34), Middle Eastern Studies 382M, Public Affairs 388N. Offered on the letter-grade basis only.

**Topic 35: Marketing for Nonmarketers.** Marketing 382 (Topic: Marketing for Nonmarketers) and 282, 382 (Topic 35) may not both be counted. Offered on the letter-grade basis only.

**Topic 36: Pricing and Channels.** Marketing 382 (Topic: Pricing Channels) and 282, 382 (Topic 36) may not both be counted. Offered on the letter-grade basis only.

**Topic 37: Strategic Branding.** Marketing 382 (Topic: Strategic Branding) and 282, 382 (Topic 37) may not both be counted. Offered on the letter-grade basis only.

**Topic 38: Science of Good Business.** Explore what good business means in multiple ways: doing well; being good; and feeling good. Examine theory, data, insights, and empirical evidence from behavioral sciences to learn how individuals and organizations can achieve "good" in a business context. Identify actionable practical applications, based on design thinking principles, that can actually be implemented in the workplace. Marketing 382 (Topic: Science of Good Business) and Marketing 282, 382 (Topic 38) may not both be counted. Offered on the letter-grade basis only.

**Topic 41: Advanced Marketing Management.** Marketing 282 (Topic: Spec Topics in Strat Mkt) and 282, 382 (Topic 41) may not both be counted. Offered on the letter-grade basis only.

**Topic 51: Analysis of Markets.** Marketing 382 (Topic: Analysis of Markets) and 282, 382 (Topic 51) may not both be counted. Offered on the letter-grade basis only.

**Topic 52: Marketing Analytics and Information.** Marketing 382 (Topic: MKT Analytics and Information) and 282, 382 (Topic 52) may not both be counted. Offered on the letter-grade basis only.

**Topic 53: Analytical Tools for Marketing.** Marketing 382 (Topic: Analytical Tools for Marketing) and 282, 382 (Topic 53) may not both be counted. Offered on the letter-grade basis only.

**Topic 54: Data Driven Marketing.** Marketing 382 (Topic: Data Driven Marketing) and 282, 382 (Topic 54) may not both be counted. Offered on the letter-grade basis only.

**Topic 55: Data Analytics and Dynamic Pricing.** Marketing 382 (Topic: Data Analytic & Dynamic Pricing) and Marketing 282, 382 (Topic 55) may not both be counted. Offered on the letter-grade basis only.

**Topic 56: Marketing Analytics.** Only one of the following may be counted: Marketing 382 (Topic: MKT Analy & Application), 382 (Topic: Anly/Applicatn in MKT), 282, 382 (Topic 56). Offered on the letter-grade basis only.

**Topic 71: CCIMS Marketing Fellows Practicum.** Restricted to students in the Marketing Fellows and Marketing Labs programs. Marketing 382 (Topic: CCIMS Marketing Fellows Pract) and 282, 382 (Topic 71) may not both be counted. Offered on the letter-grade basis only.

**Topic 72: Marketing and Customer Insights Practicum.** Marketing 382 (Topic MKT & Customer Insights Pract) and 282, 382 (Topic 72) may not both be counted. Offered on the letter-grade basis only.

### **MKT 282C. Product Management for Executives.**

Restricted to students in the Executive MBA Program. Explore product management with a focus on contemporary, in-demand marketing areas that provide the foundational knowledge, hands-on experience, and skills for today's marketing ecosystem. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **MKT 383. Acquisition, Consumption, and Disposition Behavior.**

The acquisition, consumption, and disposition of goods, services, time, and ideas by individuals, families, and organizations, examined from a managerial viewpoint. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **MKT 384. Marketing Research Methodology.**

An applied approach to advanced marketing research, covering both the design and execution of marketing research projects and the management of the marketing research function. Three lecture hours a week for one semester. Prerequisite: Graduate standing, three semester hours of coursework in marketing, and three semester hours of coursework in statistics.

### **MKT 386. Advanced Marketing Management.**

Major marketing concepts and variables, their interrelationships, and their implications for policymaking, problem solving, and strategy formulation. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **MKT 188, 288, 388. Marketing Micro-topics.**

Focuses on contemporary, in-demand marketing topics to help develop the foundational knowledge, hands-on experience, and skills for today's marketing ecosystem. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing. Additional prerequisites may vary with topics.

### **MKT 191C, 291C, 391C, 691C. Independent Study.**

For each hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **MKT 397. Seminar: Current Topics in Marketing.**

Survey and analysis of current marketing problems; their significance, evaluation, and probable outcome. Three lecture hours a week for one

semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Marketing Theory and Development of Marketing Thought.**

Analysis of marketing phenomena and their causes. Provides a historical framework to study issues among key components of the marketing system (customers, distributors, and manufacturers).

**Topic 2: Marketing Management and Strategy.** Examination from the marketing perspective of the process of strategy development and implementation at various levels of the organization: corporate, strategic business unit, and product line/brand.

**Topic 3: Buyer Behavior.** Theoretical examination of the acquisition and consumption of goods, services, time, and ideas by individuals and groups.

**Topic 4: Marketing Research Methods.** Advanced statistical procedures and analytical methods for data analysis; reliability and validity of data.

**Topic 5: Research Topics in Marketing.** Current research issues, methods, and models in marketing; focus on both theory and methodology.

**Topic 6: Advanced Research Methods in Marketing.** New methodological developments and research procedures; selected topics.

**Topic 7: Marketing Models.** Analytical techniques and models developed by management scientists to aid marketing-oriented decisions in contexts such as marketing mix management, new product development, and product adoptions.

**Topic 8: Quantitative Marketing Strategy.** Decision models and analytical procedures used in strategic decision making in marketing; strategic planning approaches, industry analysis (models related to growth in sales and competition), competitive structure (approaches for market structure analysis), and new product design and development models.

**Topic 9: Behavioral Decision Research.**

**Topic 10: Marketing Models II.** Restricted to doctoral students in McCombs School of Business. Introduces state-of-the-art theoretical and empirical marketing models using deductive mathematical analysis and inductive statistical reasoning. Create novel quantitative marketing models and estimation methods and critically evaluate the models in the literature of quantitative marketing. Three lecture hours a week for one semester.

**MKT 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in marketing and consent of the graduate adviser; for 698B, Marketing 698A.

**MKT 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in marketing and consent of the supervising faculty member.

**MKT 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

**Professional Courses**

# Materials Science and Engineering Courses

## Materials Science and Engineering: MSE

### Lower-Division Courses

### Upper-Division Courses

### Graduate Courses

**MSE 386P. Topics in Materials Science: Fundamentals.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor; additional prerequisites may vary with the topic.

**Topic 1: Introduction to Phase Transformations.** Same as Mechanical Engineering 386P (Topic 1). Basics of crystal structures and phase diagrams; diffusion; solidification; solid-state phase transformations. Mechanical Engineering 386P (Topic 1) and Materials Science and Engineering 386P (Topic 1) may not both be counted.

**Topic 2: Mechanical Behavior of Materials.** Same as Mechanical Engineering 386P (Topic 2). Elastic deformation; viscoelasticity; yielding, plastic flow, plastic instability; strengthening mechanisms; fracture, fatigue, creep; significance of mechanical properties tests. Microstructural mechanisms and macroscopic behavior of metals, polymers, ceramics, and composites. Mechanical Engineering 386P (Topic 2) and Materials Science and Engineering 386P (Topic 2) may not both be counted.

**Topic 3: Introduction to Thermodynamics of Materials.** Same as Mechanical Engineering 386P (Topic 3). Thermodynamic properties; reactions and chemical equilibrium in gases; solutions, phase equilibria, phase diagrams, reaction equilibria; surfaces and interfaces; point defects in crystals. Mechanical Engineering 386P (Topic 3) and Materials Science and Engineering 386P (Topic 3) may not both be counted.

**Topic 4: Introduction to Solid-State Properties of Materials.** Same as Electrical and Computer Engineering 396V (Topic 5) and Mechanical Engineering 386P (Topic 4). Introduction to the electronic, magnetic, and optical properties of materials. Solid-state properties of metals, semiconductors, and ceramics; fundamental concepts needed for the description of these properties, using an introductory-level description of the electronic structure of solids. Only one of the following may be counted: Electrical Engineering 396V (Topic 5), Electrical and Computer Engineering 396V (Topic 5), Mechanical Engineering 386P (Topic 4), Materials Science and Engineering 386P (Topic 4). Additional prerequisite: Graduate standing and consent of instructor.

**Topic 5: Structure of Materials.** Same as Mechanical Engineering 386P (Topic 5). Essential crystallography of lattices and structures; symmetry; elements of diffraction and reciprocal lattices; point, line, and surface defects in crystals; crystalline interfaces; noncrystalline materials; polymers; glasses. Mechanical Engineering 386P (Topic 5) and Materials Science and Engineering 386P (Topic 5) may not both be counted.

**MSE 389. Topics in Materials Science and Engineering.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor; additional prerequisites may vary with the topic.

**MSE 397. Graduate Seminar.**

Presentation of research topics by invited speakers, faculty, and students. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **MSE 197R, 297R, 397R. Research.**

Individual research. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **MSE 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in materials science and engineering and consent of the graduate adviser; for 698B, Materials Science and Engineering 698A.

### **MSE 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in materials science and engineering and consent of the graduate adviser.

### **MSE 399W, 699W, 999W. Dissertation.**

Research leading to the Doctor of Philosophy in materials science and engineering. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Mathematics Courses**

## **Mathematics: M**

### **Lower-Division Courses**

#### **M 301 (TCCN: MATH 1314). College Algebra.**

Subjects include a brief review of elementary algebra; linear, quadratic, exponential, and logarithmic functions; polynomials; systems of linear equations; applications. Three lecture hours a week for one semester. Usually offered only in the summer session. May not be counted toward a degree in mathematics. Credit for Mathematics 301 may not be earned after a student has received credit for any calculus course with a grade of C- or better. Prerequisite: A passing score on the mathematics section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

#### **M 302 (TCCN: MATH 1332). Introduction to Mathematics.**

Intended primarily for general liberal arts students seeking knowledge of the nature of mathematics as well as training in mathematical thinking and problem solving. Topics include number theory and probability; additional topics are chosen by the instructor. Three lecture hours a week for one semester. Mathematics 302 and 303F may not both be counted. A student may not earn credit for Mathematics 302 after having received credit for any calculus course. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Texas Success Initiative (TSI) exemption or a TSI Mathematics Assessment score of 350 or higher.

#### **M 303D (TCCN: MATH 1324). Applicable Mathematics.**

An entry-level course for the nontechnical student, dealing with some of the techniques that allow mathematics to be applied to a variety of problems. Topics include linear and quadratic equations, systems of linear equations, matrices, probability, statistics, exponential and logarithmic functions, and mathematics of finance. Three lecture hours a week for one semester. Mathematics 303D and 303F may not both be counted. A student may not earn credit for Mathematics 303D after having received credit for Mathematics 305G or any calculus course. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: An appropriate score on the mathematics placement exam.

#### **M 303F. Mathematics of Investment.**

Simple and compound interest, equivalent rates, equivalent values, annuities, amortization, sinking funds, bonds, depreciation. Three lecture hours a week for one semester. Mathematics 302 and 303F may not both be counted; Mathematics 303D and 303F may not both be counted. May not be counted toward the major requirement for the Bachelor of Arts, Plan I, degree with a major in mathematics or toward the Bachelor of Science in Mathematics degree. Prerequisite: Three units of high school mathematics at the level of Algebra I or higher.

#### **M 403K. Calculus I for Business and Economics.**

Differential and integral calculus of algebraic, logarithmic, and exponential functions with applications. Three lecture hours and two discussion sessions a week for one semester. Only one of the following may be counted: Mathematics 403K, 408C, 408K, 408N, 408Q, 408R. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: An appropriate score on the mathematics placement exam.

#### **M 403L. Calculus II for Business and Economics.**

Differential and integral calculus of functions of several variables with applications, infinite series, improper integrals; introductions to probability, differential equations, matrices, systems of linear equations, and linear programming. Three lecture hours and two discussion sessions a week for one semester. Mathematics 403L and 408L (or 308L) may not both be counted. May not be counted toward the major requirement for the Bachelor of Arts, Plan I, degree with a major in mathematics or toward the Bachelor of Science in Mathematics degree. Prerequisite: Mathematics 403K, 408C, 308L, or 408N with a grade of at least C-.

#### **M 305E. Analytic Geometry.**

Combines development of methods (including adequate treatment of theory) and acquisition of skills with applications. Three lecture hours a week for one semester. Mathematics 305E and 305K may not both be counted. Mathematics 305E and 305G may not both be counted toward the major requirement for the Bachelor of Arts, Plan I, degree with a major in Mathematics or towards the Bachelor of Science in Mathematics degree. Prerequisite: Mathematics 301.

#### **M 305G (TCCN: MATH 2312). Preparation for Calculus.**

Study of advanced functions and their graphs and applications, including exponential, logarithmic, and trigonometric functions. Introduction to rates, slopes, and derivatives. Three lecture hours a week for one semester. Mathematics 305G and any college-level trigonometry course may not both be counted. A student may not earn credit for Mathematics 305G after having received credit for any calculus course with a grade of at least C-. Mathematic 301, 305G, and equivalent courses may not be counted toward a degree in mathematics. Prerequisite: An appropriate score on the mathematics placement exam.

#### **M 408C. Differential and Integral Calculus.**

Introduction to the theory and applications of differential and integral calculus of functions of one variable; topics include limits, continuity, differentiation, the mean value theorem and its applications, integration, the fundamental theorem of calculus, and transcendental functions. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403K, 408C, 408K, 408N, 408Q, 408R. Prerequisite: An appropriate score on the mathematics placement exam or Mathematics 305G with a grade of at least B-.

#### **M 408D. Sequences, Series, and Multivariable Calculus.**

Certain sections of this course are designated as advanced placement or honors sections; they are restricted to students who have scored well on the Advanced Placement Calculus BC exam or have the consent of

the mathematics adviser. This is the second semester of the accelerated calculus sequence. The theory and applications of sequences and infinite series, including those involving functions of one variable, and an introduction to the theory and applications of differential and integral calculus of functions of several variables; subjects include methods of integration, parametric equations, sequences, infinite series, power series, functions of several variables, partial derivatives, and multiple integrals. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403L, 408D, 408M (or 308M). Prerequisite: Mathematics 408C, 408L, or 408S with a grade of at least C-.

#### **M 408K (TCCN: MATH 2413). Differential Calculus.**

Introduction to the theory and applications of differential calculus of functions of one variable; topics include limits, continuity, differentiation, and the mean value theorem and its applications. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403K, 408C, 408K, 408N, 408Q, 408R. Prerequisite: An appropriate score on the mathematics placement exam or Mathematics 305G with a grade of at least B-.

#### **M 308L, 408L (TCCN: MATH 2414). Integral Calculus.**

Introduction to the theory and applications of integral calculus of functions of one variable; topics include integration, the fundamental theorem of calculus, transcendental functions, sequences, and infinite series. For Mathematics 308L, three lecture hours a week for one semester; for 408L, three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403L, 408L (or 308L), 408S. Prerequisite: Mathematics 408C, 408K, or 408N with a grade of at least C-, or Mathematics 408R or 408Q with a grade of at least B.

#### **M 308M, 408M (TCCN: MATH 2415). Multivariable Calculus.**

Introduction to the theory and applications of differential and integral calculus of functions of several variables. Includes parametric equations, polar coordinates, vectors, vector calculus, functions of several variables, partial derivatives, gradients, and multiple integrals. For Mathematics 308M, three lecture hours a week for one semester; for 408M, three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403L, 408D, 408M (or 308M). Prerequisite: Mathematics 408L or 408S with a grade of at least C-.

#### **M 408N. Differential Calculus for Science.**

Restricted to students in the College of Natural Sciences. Introduction to the theory of differential calculus of functions of one variable, and its application to the natural sciences. Subjects may include limits and differentiation, with applications to rates of change, extremes, graphing, and exponential growth and decay. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403K, 408C, 408K, 408N, 408Q, 408R. Prerequisite: An appropriate score on the mathematics placement exam or Mathematics 305G with a grade of at least B-.

#### **M 408Q. Differential and Integral Calculus for Business.**

Focus on the key concepts of calculus. These include: using successive approximations to solve problems that cannot be solved directly (Euler's Method), tracking the rate at which quantities are changing (derivatives) using rates of change to find optimal solutions to real-world problems (max/min), computing bulk quantities by adding up the pieces (integration), and understanding functions of several variables by studying one variable at a time. Designed for business students. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403K, 408C, 408K, 408N, 408Q, 408R. Prerequisite: An appropriate score on the

mathematics placement exam or Mathematics 305G with a grade of at least B-.

#### **M 408R. Differential and Integral Calculus for the Sciences.**

A calculus course for students in the life sciences. Emphasizes representations and analysis of data. Subjects include functions, rates, and derivatives and their applications to problems in biology; differential equations; Riemann integrals; the Euler method; and fundamental theorems of calculus. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403K, 408C, 408K, 408N, 408Q, 408R. Prerequisite: An appropriate score on the mathematics placement exam or Mathematics 305G with a grade of at least B-.

#### **M 408S. Integral Calculus for Science.**

Restricted to students in the College of Natural Sciences. Introduction to the theory of integral calculus of functions of one variable, and its applications to the natural sciences. Subjects may include integration and its application to area and volume, and transcendental functions, sequences, and series and their application to numerical methods. Three lecture hours and two discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403L, 408L (or 308L), 408S. Prerequisite: Mathematics 408C, 408K, or 408N with a grade of at least C-, or Mathematics 408R or 408Q with a grade of at least B.

#### **M 110C, 210C, 310C, 410C. Conference Course.**

Supervised study in mathematics, with hours to be arranged. May be repeated for credit. Prerequisite: Written consent of instructor; forms are available in the department office or in the Mathematics, Physics, and Astronomy Advising Center.

#### **M 210E. Emerging Scholars Seminar.**

Restricted to students in the Emerging Scholars Program. Supplemental problem-solving laboratory for precalculus, calculus, or advanced calculus courses for students in the Emerging Scholars Program. Three or four laboratory hours a week for one semester. May be repeated for credit. Offered on the pass/fail basis only.

#### **M 310P. Modern Mathematics: Plan II.**

Restricted to Plan II students. Significant developments in modern mathematics. Topics may include fractals, the fourth dimension, statistics and society, and techniques for thinking about quantitative problems. Three lecture hours a week for one semester. May not be counted toward a degree in mathematics.

#### **M 110T, 210T, 310T, 410T. Topics in Mathematics.**

One, two, three, or four lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **M 315C. Foundations, Functions, and Regression Models.**

In-depth study of topics from secondary school mathematics. Emphasizes the development of the concept of function, exploring function patterns in data sets, and the connections between the main topics of mathematics associated with a secondary school curriculum. Use of appropriate technology is explored. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Mathematics 408C and enrollment in a teaching preparation program, or consent of instructor.

#### **M 316K (TCCN: MATH 1350). Foundations of Arithmetic.**

Restricted to students in a teacher preparation program. An analysis, from an advanced perspective, of the concepts and algorithms of arithmetic, including sets; numbers; numeration systems; definitions, properties, and algorithms of arithmetic operations; and percents, ratios, and proportions. Problem solving is stressed. Three lecture hours a week

for one semester. May not be counted toward the major requirement for the Bachelor of Arts, Plan I, degree with a major in mathematics or toward the Bachelor of Science in Mathematics degree. Credit for Mathematics 316K may not be earned after the student has received credit for any calculus course with a grade of C- or better, unless the student is registered in the College of Education. Prerequisite: One of the following with a grade of at least C-: Mathematics 301, 302, 303D, 305G, 316, Educational Psychology 371, Statistics and Data Sciences 302, 304, or 306.

### **M 316L (TCCN: MATH 1351). Foundations of Geometry, Statistics, and Probability.**

Restricted to students in a teacher preparation program. An analysis, from an advanced perspective, of the basic concepts and methods of geometry, statistics, and probability, including representation and analysis of data; discrete probability, random events, and conditional probability; measurement; and geometry as approached through similarity and congruence, through coordinates, and through transformations. Problem solving is stressed. Three lecture hours a week for one semester. May not be counted toward the major requirement for the Bachelor of Arts, Plan I, degree with a major in mathematics or toward the Bachelor of Science in Mathematics degree. Credit for Mathematics 316L may not be earned after the student has received credit for any calculus course with a grade of C- or better, unless the student is registered in the College of Education. Prerequisite: Mathematics 316K with a grade of at least C.

### **M 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Mathematics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mathematics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**M 680. .**

## **Upper-Division Courses**

### **M 325K. Discrete Mathematics.**

Provides a transition from the problem-solving approach of Mathematics 408C and 408D to the rigorous approach of advanced courses. Subjects include logic, set theory, relations and functions, combinatorics, and graph theory and graph algorithms. Three lecture hours a week for one semester. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-.

### **M 326K. Foundations of Number Systems.**

Restricted to students in a teacher preparation program or who have consent of instructor. Study of number-related topics in middle-grade and secondary school mathematics. Topics include place value; meanings of arithmetic operations; analysis of computation methods; historical development of number concepts and notation; and rational, irrational, algebraic, transcendental, and complex numbers. Emphasis is on communicating mathematics, developing pedagogical understanding of concepts and notation, and using both informal reasoning and proof. Three lecture hours a week for one semester. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-.

### **M 427J. Differential Equations with Linear Algebra.**

Ordinary differential equations, introduction to vector spaces, linear operators and eigenvalues, systems of linear differential equations, introduction to partial differential equations and Fourier series. Five lecture hours a week for one semester. Mathematics 427J and 427K may

not both be counted. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-.

### **M 427K (TCCN: MATH 2420). Advanced Calculus for Applications I.**

Ordinary and partial differential equations and Fourier series. Five lecture hours a week for one semester. Mathematics 427J and 427K may not both be counted. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-.

### **M 427L. Advanced Calculus for Applications II.**

Matrices, elements of vector analysis and calculus of functions of several variables, including gradient, divergence, and curl of a vector field, multiple integrals and chain rules, length and area, line and surface integrals, Green's theorems in the plane and space, and, if time permits, complex analysis. Five class hours a week for one semester. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-.

### **M 328K. Introduction to Number Theory.**

Provides a transition from the problem-solving approach of Mathematics 408C and 408D to the rigorous approach of advanced courses. Properties of the integers, divisibility, linear and quadratic forms, prime numbers, congruences and residues, quadratic reciprocity, number theoretic functions. Three lecture hours a week for one semester. Prerequisite: Mathematics 325K or 341 with a grade of at least C-.

### **M 329F. Theory of Interest.**

Same as Actuarial Foundations 329. Measurement of interest, present and accumulated value, amortization, sinking funds, bonds, duration, and immunization. Covers the interest-theory portion of an exam of the Society of Actuaries and the Casualty Actuarial Society. Three lecture hours a week for one semester. Only one of the following may be counted: Actuarial Foundations 329, Mathematics 329F, 389F. Prerequisite: Mathematics 408D, 308L, 408L, 408M, or 408S with a grade of at least C-.

### **M 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Mathematics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mathematics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **M 329W. Cooperative Mathematics.**

This course covers the work period of mathematics students in the Cooperative Education program, which provides supervised work experience by arrangement with the employer and the supervising instructor. Forty laboratory hours a week for one semester. The student must repeat the course each work period and must take it twice to receive credit toward the degree; at least one of these registrations must be during a long-session semester. No more than three semester hours may be counted toward the major requirement; no more than six semester hours may be counted toward the degree. The student's first registration must be on the pass/fail basis. Prerequisite: Application through the College of Natural Sciences Career Design Center; Mathematics 408D, 408L, or 408S with a grade of at least C-; a grade of at least C- in two of the following courses: Mathematics 325K, 427J or 427K, 341, 362K, or 378K; and consent of the undergraduate adviser.

**M 333L. Structure of Modern Geometry.**

Axiom systems, transformational geometry, introduction to non-Euclidean geometries, and other topics in geometry; use of these ideas in teaching geometry. Three lecture hours a week for one semester.

Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-; or upper-division standing and consent of instructor.

**M 339C. Actuarial Case Studies.**

Introduces aspects of basic ratemaking, reserving, catastrophe modeling, and rate classification in a property & casualty actuarial context. Explores loss & premium trending, loss triangles, loss development, loss ratios, on-level premium, and accident year vs. calendar year vs. policy year data. Three lecture hours a week for one semester. Prerequisite: Actuarial Foundations 329 or Mathematics 329F with a grade of at least C-; and M339J or M339U with a grade of at least C-.

**M 339D. Introduction to Financial Mathematics for Actuaries.**

Covers the financial derivative subjects on the Society of Actuary FM/2 exam: general derivatives, options, hedging, investment strategies, forwards, futures, and swaps. Covers option pricing techniques in the MFE/3F exam: binomial option pricing, Monte Carlo Valuation using risk neutral probabilities, and Black-Scholes. Three lecture hours a week for one semester. Prerequisite: Actuarial Foundations 329 or Mathematics 329F; and Mathematics 362K with a grade of at least C-.

**M 339G. Predictive Analytics.**

Designed for students in mathematics and actuarial science. Explore an introduction to predictive modeling that starts with least squares as a foundation and takes a modern approach applicable to classification and prediction in the presence of large datasets. Three lecture hours a week for one semester. Mathematics 339G and 375T (Topic: Predictive Analytics) may not both be counted. Prerequisite: The following with a grade of at least C-: Mathematics 341 or 340L; and Mathematics 378K.

**M 339J. Probability Models with Actuarial Applications.**

Introductory actuarial models for life insurance, property insurance, and annuities. With Mathematics 349P covers the syllabus for the professional actuarial exam on model construction. Three lecture hours a week for one semester. Prerequisite: Mathematics 358K or 378K with a grade of at least C-.

**M 139S. Seminar on Actuarial Practice.**

Presentations by working actuaries on current issues in actuarial practice. One lecture hour a week for one semester. Offered on the pass/fail basis only. Prerequisite: Actuarial Foundations 329 or Mathematics 329F; Mathematics 339J or 339U with a grade of at least C-; and credit with a grade of at least C- or registration for one of the following: Mathematics 339J, 339U, 339V, 349P.

**M 339U. Actuarial Contingent Payments I.**

Intermediate actuarial models for life insurance, property insurance, and annuities. Three lecture hours a week for one semester. Prerequisite: Mathematics 362K with a grade of at least C-; credit with a grade of at least C- or registration for Actuarial Foundations 329 or Mathematics 329F; and credit with a grade of at least C- or registration for Mathematics 340L or 341.

**M 339V. Actuarial Contingent Payments II.**

Advanced actuarial models for life insurance, property insurance, and annuities. Three lecture hours a week for one semester. Prerequisite: Actuarial Foundations 329 or Mathematics 329F, and M 339U with a grade of at least C- in each.

**M 339W. Financial Mathematics for Actuarial Applications.**

Pricing, stock price, and interest rate models for actuarial applications. Tools include lognormal distribution, Brownian motion, Black-Scholes, and delta hedging. Three lecture hours a week for one semester.

Prerequisite: Mathematics 339D with a grade of at least C-.

**M 340L. Matrices and Matrix Calculations.**

Restricted to non-mathematics majors. Techniques of matrix calculations and applications of linear algebra. Three lecture hours a week for one semester. Only one of the following may count: Mathematics 340L, 341, Statistics and Data Sciences 329C. Prerequisite: Mathematics 408C, 408K, or 408N with a grade of at least C-.

**M 341. Linear Algebra and Matrix Theory.**

Restricted to mathematics majors. Vector spaces, linear transformations, matrices, linear equations, determinants. Some emphasis on rigor and proofs. Three lecture hours a week for one semester. Only one of the following may count: Mathematics 340L, 341, Statistics and Data Sciences 329C. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-.

**M 343K. Introduction to Algebraic Structures.**

Elementary properties of groups and rings, including symmetric groups, properties of the integers, polynomial rings, elementary field theory. Three lecture hours a week for one semester. Students who have received a grade of C- or better in Mathematics 373K may not take Mathematics 343K. Prerequisite: Consent of the undergraduate adviser, or two of the following courses with a grade of at least C- in each: Mathematics 325K or Philosophy 313K, Mathematics 328K, Mathematics 341.

**M 343L. Applied Number Theory.**

Basic properties of integers, including properties of prime numbers, congruences, and primitive roots. Introduction to finite fields and their vector spaces with applications to encryption systems and coding theory. Three lecture hours a week for one semester. Prerequisite: Mathematics 328K or 343K with a grade of at least C-.

**M 343M. Error-Correcting Codes.**

Introduction to applications of algebra and number theory to error-correcting codes, including finite fields, error-correcting codes, vector spaces over finite fields, Hamming norm, coding, and decoding. Three lecture hours a week for one semester. Prerequisite: Mathematics 328K or 341 with a grade of at least C-.

**M 344K. Intermediate Symbolic Logic.**

Same as Philosophy 344K. A second-semester course in symbolic logic: formal syntax and semantics, basic metatheory (soundness, completeness, compactness, and Loewenheim-Skolem theorems), and further topics in logic. Three lecture hours a week for one semester. Prerequisite: Philosophy 313, 313K, or 313Q.

**M 346. Applied Linear Algebra.**

Emphasis on diagonalization of linear operators and applications to dynamical systems and ordinary differential equations. Other subjects include inner products and orthogonality, normal mode expansions, vibrating strings and the wave equation, and Fourier series. Three lecture hours a week for one semester. Prerequisite: Mathematics 341 or 340L with a grade of at least C-.

**M 348. Scientific Computation in Numerical Analysis.**

Introduction to mathematical properties of numerical methods and their applications in computational science and engineering. Introduction to object-oriented programming in an advanced language. Study and use of numerical methods for solutions of linear systems of equations;

nonlinear least-squares data fitting; numerical integration; and solutions of multidimensional nonlinear equations and systems of initial value ordinary differential equations. Three lecture hours a week for one semester. Prerequisite: Computer Science 303E and Mathematics 341 or 340L with a grade of at least C-.

#### **M 349P. Actuarial Statistical Estimates.**

Statistical estimation procedures for random variables and related quantities in actuarial models. With Mathematics 339J, covers the syllabus for the professional actuarial exam on model construction. Three lecture hours a week for one semester. Prerequisite: Mathematics 339J, and 341 or 340L, with a grade of at least C- in each.

#### **M 349R. Applied Regression and Time Series.**

Introduction to simple and multiple linear regression and to elementary time-series models, including auto-regressive and moving-average models. Emphasizes fitting models to data, evaluating models, and interpreting results. Three lecture hours a week for one semester. Prerequisite: Mathematics 339J or 339U, and 358K or 378K, with a grade of at least C- in each.

#### **M 349T. Time Series and Survival-Model Estimation.**

Introduction to the probabilistic and statistical properties of time series; parameter estimation and hypothesis testing for survival models. Covers 30 percent of the syllabus for exam #4 of the Society of Actuaries and the Casualty Actuarial Society. Three lecture hours a week for one semester. Prerequisite: Mathematics 339U, 341 or 340L, and 358K or 378K.

#### **M 358K. Applied Statistics.**

Exploratory data analysis, correlation and regression, data collection, sampling distributions, confidence intervals, and hypothesis testing. Three lecture hours a week for one semester. Prerequisite: Mathematics 362K with a grade of at least C-.

#### **M 360M. Mathematics as Problem Solving.**

Discussion of heuristics, strategies, and methods of evaluating problem solving, and extensive practice in both group and individual problem solving. Communicating mathematics, reasoning, and connections among topics in mathematics are emphasized. Three lecture hours a week for one semester. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-; and written consent of instructor.

#### **M 361. Theory of Functions of a Complex Variable.**

Elementary theory and applications of analytic functions, series, contour integration, and conformal mappings. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J, 427K, or 427L with a grade of at least C-.

#### **M 361K. Introduction to Real Analysis.**

A rigorous treatment of the real number system, of real sequences, and of limits, continuity, derivatives, and integrals of real-valued functions of one real variable. Three lecture hours a week for one semester. Students who have received a grade of C- or better in Mathematics 365C may not take Mathematics 361K. Prerequisite: Consent of the undergraduate adviser, or two of the following courses with a grade of at least C- in each: Mathematics 325K or Philosophy 313K, Mathematics 328K, Mathematics 341.

#### **M 362K. Probability I.**

An introduction to the mathematical theory of probability, fundamental to further work in probability and statistics, includes basic probability properties, conditional probability and independence, various discrete and continuous random variables, expectation and variance, central limit theorem, and joint probability distributions. Three lecture hours a week

for one semester. Prerequisite: Mathematics 408D, 408L, or 408S with a grade of at least C-.

#### **M 362M. Introduction to Stochastic Processes.**

Introduction to Markov chains, birth and death processes, and other topics. Three lecture hours a week for one semester. Prerequisite: Mathematics 362K with a grade of at least B and Mathematics 340L or 341 with a grade of at least C-.

#### **M 364K. Vector and Tensor Analysis I.**

Invariance, vector algebra and calculus, integral theorems, general coordinates, introductory differential geometry and tensor analysis, applications. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J, 427K, or 427L with a grade of at least C-.

#### **M 364L. Vector and Tensor Analysis II.**

Continuation of Mathematics 364K, with emphasis on tensor and extensor analysis. Riemannian geometry and invariance. Three lecture hours a week for one semester. Prerequisite: Mathematics 364K with a grade of at least C-.

#### **M 365C. Real Analysis I.**

A rigorous treatment of the real number system, Euclidean spaces, metric spaces, continuity of functions in metric spaces, differentiation and Riemann integration of real-valued functions of one real variable, and uniform convergence of sequences and series of functions. Three lecture hours a week for one semester. Students who have received a grade of C- or better in Mathematics 365C may not take Mathematics 361K. Prerequisite: Consent of the undergraduate adviser, or two of the following courses with a grade of at least C- in each: Mathematics 325K or Philosophy 313K, Mathematics 328K, Mathematics 341. Students who receive a grade of C- in one of the prerequisite courses are advised to take Mathematics 361K before attempting 365C. Students planning to take Mathematics 365C and 373K concurrently should consult a mathematics adviser.

#### **M 365D. Real Analysis II.**

Recommended for students planning to undertake graduate work in mathematics. A rigorous treatment of selected topics in real analysis, such as Lebesgue integration, or multivariate integration and differential forms. Three lecture hours a week for one semester. Prerequisite: Mathematics 365C with a grade of at least C-.

#### **M 365G. Curves and Surfaces.**

Calculus applied to curves and surfaces in three dimensions: curvature and torsion of space curves, Gauss map and curvature of surfaces, Gauss theorem, geodesics, and the Gauss-Bonnet theorem. Three lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Mathematics 365C.

#### **M 367K. Topology I.**

An introduction to topology, including sets, functions, cardinal numbers, and the topology of metric spaces. Three lecture hours a week for one semester. Prerequisite: Mathematics 361K or 365C or consent of instructor.

#### **M 367L. Topology II.**

Various topics in topology, primarily of a geometric nature. Three lecture hours a week for one semester. Prerequisite: Mathematics 367K with a grade of at least C- or consent of instructor.

#### **M 368K. Numerical Methods for Applications.**

Continuation of Mathematics 348. Topics include splines, orthogonal polynomials and smoothing of data, iterative solution of systems of linear equations, approximation of eigenvalues, two-point-boundary value

problems, numerical approximation of partial differential equations, signal processing, optimization, and Monte Carlo methods. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 367, Mathematics 368K, Physics 329. Prerequisite: Mathematics 348 with a grade of at least C-.

#### **M 371E. Learning Assistant Experience in Mathematics.**

Students assist instructors and TAs in mathematics courses. This is a hands-on experience in what it is like to teach and support students in the learning of mathematics in undergraduate courses. Students must attend classroom training and discussions and work in Calculus discussion sections or undergraduate classrooms where mathematics is being taught. One class hour and three hours of fieldwork in an undergraduate mathematics course a week for one semester. Prerequisite: Mathematics 408C, 408K, 408N, 408R, or equivalent, and consent of instructor.

#### **M 372. Fourier Series and Boundary Value Problems.**

Discussion of differential equations of mathematical physics and representation of solutions by Green's functions and eigenfunction expansions. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J or 427K with a grade of at least C-.

#### **M 372K. Partial Differential Equations and Applications.**

Partial differential equations as basic models of flows, diffusion, dispersion, and vibrations. Topics include first- and second-order partial differential equations and classification (particularly the wave, diffusion, and potential equations), and their origins in applications and properties of solutions. Includes the study of characteristics, maximum principles, Green's functions, eigenvalue problems, and Fourier expansion methods. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J or 427K with a grade of at least C-.

#### **M 373K. Algebraic Structures I.**

A study of groups, rings, and fields, including structure theory of finite groups, isomorphism theorems, polynomial rings, and principal ideal domains. Three lecture hours a week for one semester. Students who have received a grade of C- or better in Mathematics 373K may not take Mathematics 343K. Prerequisite: Consent of the undergraduate adviser, or two of the following courses with a grade of at least C- in each: Mathematics 325K or Philosophy 313K, Mathematics 328K, Mathematics 341. Students who receive a grade of C- in one of the prerequisite courses are advised to take Mathematics 343K before attempting 373K. Students planning to take Mathematics 365C and 373K concurrently should consult a mathematics adviser.

#### **M 373L. Algebraic Structures II.**

Recommended for students planning to undertake graduate work in mathematics. Topics from vector spaces and modules, including direct sum decompositions, dual spaces, canonical forms, and multilinear algebra. Three lecture hours a week for one semester. Prerequisite: Mathematics 373K with a grade of at least C-.

#### **M 374. Fourier and Laplace Transforms.**

Operational properties and application of Laplace transforms; some properties of Fourier transforms. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J or 427K with a grade of at least C-.

#### **M 374G. Linear Regression Analysis.**

Fitting of linear models to data by the method of least squares, choosing best subsets of predictors, and related materials. Three lecture hours a week for one semester. Prerequisite: Mathematics 358K or 378K with grade of at least C-, Mathematics 341 or 340L, and consent of instructor.

#### **M 374K. Fourier and Laplace Transforms.**

Continuation of Mathematics 374. Introduction to other integral transforms, such as Hankel, Laguerre, Mellin, Z. Three lecture hours a week for one semester. Prerequisite: Mathematics 374 with a grade of at least C-.

#### **M 374M. Mathematical Modeling in Science and Engineering.**

Tools for studying differential equations and optimization problems that arise in the engineering and physical sciences. Includes dimensional analysis and scaling, regular and singular perturbation methods, optimization and calculus of variations, and stability. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J or 427K, and 340L or 341, with a grade of at least C- in each; and some basic programming skills.

#### **M 175, 275, 375, 475. Conference Course.**

Supervised study in mathematics, with hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing.

#### **M 375C. Conference Course (Computer-Assisted).**

Supervised study in mathematics on material requiring use of computing resources, with hours to be arranged. Conference course. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### **M 375D. Discovery: An Introduction to Advanced Study in Mathematics.**

Capstone course designed primarily for UTeach pre-service mathematics majors considering discovery teaching methodology and/or graduate work in mathematics or mathematics education. Ties together foundational topics in the primary strands of mathematics present in a typical graduate mathematics program; included are selected topics from analysis, algebra, number theory, and topology. Three lecture hours a week for one semester. Mathematics 375D and 375T (Topic: Discovery: An Introduction to Advanced Study in Mathematics) may not both be counted. Prerequisite: Two proof-based mathematics courses with a grade of at least C-, or consent of instructor.

#### **M 175S. Seminar in Instruction of Mathematics.**

An exploration of subjects in mathematics instruction as taught at the secondary educational level. Practice learning and teaching through use of proofs, explorations, and connections. Subjects include foundational mathematics concepts, numbers, constructibility, and development of key mathematics topics. One lecture hour a week for one semester. Mathematics 175S and 175T may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and consent of instructor.

#### **M 175T, 275T, 375T, 475T. Topics in Mathematics.**

One, two, three, or four lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

#### **M 376C. Methods of Applied Mathematics.**

Variational methods and related concepts from classical and modern applied mathematics. Models of conduction and vibration that lead to systems of linear equations and ordinary differential equations, eigenvalue problems, initial and boundary value problems for partial differential equations. Topics may include a selection from diagonalization of matrices, eigenfunctions and minimization, asymptotics of eigenvalues, separation of variables, generalized solutions, and approximation methods. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Prerequisite: Mathematics 427J or 427K, and 340L or 341, with a grade of at least C- in each.

### **M 378K. Introduction to Mathematical Statistics.**

Same as Statistics and Data Sciences 378. Sampling distributions of statistics, estimation of parameters (confidence intervals, method of moments, maximum likelihood, comparison of estimators using mean square error and efficiency, sufficient statistics), hypothesis tests ( $p$ -values, power, likelihood ratio tests), and other topics. Three lecture hours a week for one semester. Mathematics 378K and Statistics and Data Sciences 378 may not both be counted. Prerequisite: Mathematics 362K with a grade of at least C-.

### **M 378N. Generalized Linear Models.**

Extensions to ordinary least-squares regression, including Poisson regression, the lasso, mixed models, and ridge regression. Three lecture hours a week for one semester. Mathematics 375T (Topic: Generalized Linear Models) and 378N may not both be counted. Prerequisite: Mathematics 378K with a grade of at least C- or consent of instructor.

### **M 378P. Decision Analytics.**

Examine decision theory with utility functions, including the use of probability, optimization, constrained optimization, and linear algebra. Three lecture hours a week for one semester. Only one of the following may be counted: Mathematics 375T (Topic: Decision Analytics), 378P, Statistics and Data Sciences 378P. Prerequisite: Mathematics 362K and Mathematics 378K with a grade of at least C-, or consent of the instructor.

### **M 379H. Honors Tutorial Course.**

Directed reading, research, and/or projects, under the supervision of a faculty member, leading to an honors thesis. Conference course. Prerequisite: Admission to the Mathematics Honors Program; Mathematics 365C, 367K, 373K, or 374G with a grade of at least A-, and another of these courses with a grade of at least B-; and consent of the honors adviser.

### **M 680. .**

## **Graduate Courses**

### **M 680. .**

#### **M 380C. Algebra.**

A survey of algebraic structures, including groups, fields, rings, and modules. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor or the graduate adviser.

#### **M 380D. Algebra.**

Continuation of Mathematics 380C. Three lecture hours a week for one semester. Prerequisite: Graduate standing, consent of instructor or the graduate adviser, and Mathematics 380C.

#### **M 381C. Real Analysis.**

Same as Computational Science, Engineering, and Mathematics 385R. Measure and integration over abstract spaces; Lebesgue's theory of integration and differentiation on the real line. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 385R and Mathematics 381C may not both be counted. Prerequisite: Graduate standing and consent of instructor or the graduate adviser.

#### **M 381D. Complex Analysis.**

Same as Computational Science, Engineering, and Mathematics 385S. Introduction to complex analysis. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 385S

and Mathematics 381D may not both be counted. Prerequisite: Graduate standing and consent of instructor or the graduate adviser.

#### **M 381E. Functional Analysis.**

Introduction to functional analysis. Three lecture hours a week for one semester. Prerequisite: Graduate standing; Computational Science, Engineering, and Mathematics 385R or Mathematics 381C; and consent of instructor or the graduate adviser.

#### **M 382C. Algebraic Topology.**

Surfaces, covering spaces, fundamental group, and homology. Three lecture hours a week for one semester. Prerequisite: Graduate standing, an undergraduate course in topology, and consent of instructor or the graduate adviser.

#### **M 382D. Differential Topology.**

Continuation of Mathematics 382C. Manifolds and maps, differential forms, transversality, and intersection theory. Three lecture hours a week for one semester. Prerequisite: Graduate standing, consent of instructor or the graduate adviser, and Mathematics 382C.

#### **M 382E. Advanced Algebraic Topology.**

Continuation of Mathematics 382C. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor or the graduate adviser.

#### **M 382F. Algebraic Topology.**

Continuation of Mathematics 382E. Three lecture hours a week for one semester. Prerequisite: Graduate standing, consent of instructor or the graduate adviser, and Mathematics 382E.

#### **M 382G. Differential Geometry.**

Continuation of Mathematics 382D. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor or the graduate adviser.

#### **M 383C. Methods of Applied Mathematics.**

Same as Computational Science, Engineering, and Mathematics 386C. Topics include basic normed linear space theory; fixed-point theorems and applications to differential and integral equations; Hilbert spaces and the spectral theorem; applications to Sturm-Liouville problems; approximation and computational methods such as the Galerkin, Rayleigh-Ritz, and Newton procedures. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 386C and Mathematics 383C may not both be counted. Prerequisite: Graduate standing.

#### **M 383D. Methods of Applied Mathematics.**

Same as Computational Science, Engineering, and Mathematics 386D. Topics include distributions, fundamental solutions of partial differential equations, the Schwartz space and tempered distributions, Fourier transform, Plancherel theorem, Green's functions, Sobolev spaces, weak solutions, differential calculus in normed spaces, implicit function theorems, applications to nonlinear equations, smooth variational problems, applications to classical mechanics, constrained variational problems. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 386D and Mathematics 383D may not both be counted. Prerequisite: Graduate standing; and Computational Science, Engineering, and Mathematics 386C or Mathematics 383C.

#### **M 383E. Numerical Analysis: Linear Algebra.**

Same as Computational Science, Engineering, and Mathematics 383C, Computer Science 383C, and Statistics and Data Sciences 393C. Survey of numerical methods in linear algebra: floating-point

computation, solution of linear equations, least squares problems, algebraic eigenvalue problems. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 383C, Computer Science 383C, Mathematics 383E, Statistics and Data Sciences 393C. Prerequisite: Graduate standing; Computer Science 367 or Mathematics 368K; and Mathematics 340L, 341, or consent of instructor.

### **M 383F. Numerical Analysis: Interpolation, Approximation, Quadrature, and Differential Equations.**

Same as Computational Science, Engineering, and Mathematics 383D, Computer Science 383D, and Statistics and Data Sciences 393D. Survey of numerical methods for interpolation, functional approximation, integration, and solution of differential equations. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 383D, Computer Science 383D, Mathematics 383F, Statistics and Data Sciences 393D. Prerequisite: Graduate standing; Computational Science, Engineering, and Mathematics 383C, Computer Science 383C, Mathematics 383E, or Statistics and Data Sciences 393C; and Mathematics 427K and 365C, or consent of instructor.

### **M 384C. Mathematical Statistics I.**

Same as Computational Science, Engineering, and Mathematics 384R and Statistics and Data Sciences 384 (Topic 2). The general theory of mathematical statistics. Includes distributions of functions of random variables, properties of a random sample, principles of data reduction, an overview of hierarchical models, decision theory, Bayesian statistics, and theoretical results relevant to point estimation, interval estimation, and hypothesis testing. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384R, Mathematics 384C, Statistics and Data Sciences 384 (Topic 2). Prerequisite: Graduate standing; and Mathematics 362K and 378K, or consent of instructor.

### **M 384D. Mathematical Statistics II.**

Same as Computational Science, Engineering, and Mathematics 384S and Statistics and Data Sciences 384 (Topic 3). Continuation of Computational Science, Engineering, and Mathematics 384R and Mathematics 384C. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384S, Mathematics 384D, Statistics and Data Sciences 384 (Topic 3). Prerequisite: Graduate standing; Computational Science, Engineering, and Mathematics 384R, or Mathematics 384C; and Mathematics 362K and 378K, Statistics and Data Sciences 382, or consent of instructor.

### **M 384E. Design and Analysis of Experiments.**

Same as Computational Science, Engineering, and Mathematics 384U and Statistics and Data Sciences 384 (Topic 6). Design and analysis of experiments, including one-way and two-way layouts; components of variance; factorial experiments; balanced incomplete block designs; crossed and nested classifications; fixed, random, and mixed models; and split plot designs. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384U, Mathematics 384E, Statistics and Data Sciences 384 (Topic 6). Prerequisite: Graduate standing; and Mathematics 362K and 378K, Statistics and Data Sciences 382, or consent of instructor.

### **M 384F. Design of Experiments.**

Design of experiments, including  $2n$  and  $3n$  factorial experiments, confounding, fractional factorials, sequential experimentation, orthogonal arrays, D-optimal experiments, and response surface methodology. Three lecture hours a week for one semester. Prerequisite:

Graduate standing, and Mathematics 378K or the equivalent or consent of instructor.

### **M 384G. Regression Analysis.**

Same as Computational Science, Engineering, and Mathematics 384T and Statistics and Data Sciences 384 (Topic 4). Simple and multiple linear regression, inference in regression, prediction of new observations, diagnosis and remedial measures, transformations, and model building. Emphasis on both understanding the theory and applying theory to analyze data. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384T, Mathematics 384G, Statistics and Data Sciences 384 (Topic 4). Prerequisite: Graduate standing; and Mathematics 362K and 378K, Statistics and Data Sciences 382, or consent of instructor.

### **M 384H. Multivariate Statistical Analysis.**

Introduction to the general multivariate linear model; a selection of techniques, such as principle component, factor, and discriminant analysis. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **M 385C. Theory of Probability.**

Same as Computational Science, Engineering, and Mathematics 384K. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 384K and Mathematics 385C may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **M 385D. Theory of Probability.**

Same as Computational Science, Engineering, and Mathematics 384L. Continuation of Computational Science, Engineering, and Mathematics 384K and Mathematics 385C. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384L, Mathematics 384L, 385D. Prerequisite: Graduate standing; Computational Science, Engineering, and Mathematics 384K or Mathematics 385C; and consent of instructor.

### **M 387C. Numerical Analysis: Algebra and Approximation.**

Same as Computational Science, Engineering, and Mathematics 383K. Advanced introduction to scientific computing, theory and application of numerical linear algebra, solution of nonlinear equations, and numerical approximation of functions. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 383K and Mathematics 387C may not both be counted. Prerequisite: Graduate standing, and consent of instructor or the graduate adviser.

### **M 387D. Numerical Analysis: Differential Equations.**

Same as Computational Science, Engineering, and Mathematics 383L. Advanced introduction to the theory and practice of commonly used numerical algorithms for the solution of ordinary differential equations, and elliptic, parabolic, and hyperbolic partial differential equations. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and Computer Science 383C, Mathematics 387C, or consent of instructor.

### **M 389C. Actuarial Case Studies.**

Explores aspects of basic ratemaking, reserving, catastrophe modeling, and rate classification in a property & casualty actuarial context. Covers loss & premium trending, loss triangles, loss development, loss ratios, on-level premium, accident year vs. calendar year vs. policy year data. Three lecture hours a week for one semester. Prerequisite: Graduate standing and either 389J or 389U with a grade of at least C.

**M 389D. Introduction to Financial Mathematics for Actuaries.**

Covers the financial derivative topics on the Society of Actuary FM/2 exam: general derivatives, options, hedging, investment strategies, forwards, futures, and swaps. Covers option pricing techniques in the MFE/3F exam: binomial option pricing, Monte Carlo Valuation using risk neutral probabilities, and Black-Scholes. Three lecture hours a week for one semester. Prerequisite: Mathematics 389F.

**M 389F. Theory of Interest.**

Measurement of interest, present and accumulated value, amortization, sinking funds, bonds, duration, and immunization. Covers the interest theory portion of an exam of the Society of Actuaries and the Casualty Actuarial Society. Three lecture hours a week for one semester. Only one of the following may be counted: Actuarial Foundations 329, Mathematics 329F, 389F. Prerequisite: Graduate standing and Mathematics 408D or 408L.

**M 389G. Predictive Analytics.**

Designed for students in mathematics and actuarial science. Explore an introduction to predictive modeling that starts with least squares as a foundation and takes a modern approach applicable to classification and prediction in the presence of large datasets. Three lecture hours a week for one semester. Prerequisite: Graduate standing; an understanding of linear algebra and mathematical statistics.

**M 389J. Probability Models with Actuarial Applications.**

Introductory actuarial models for life insurance, property insurance, and annuities. With Mathematics 389P, covers the syllabus for the professional actuarial exam on model construction. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Mathematics 358K or 378K with a grade of at least C.

**M 389P. Actuarial Statistical Estimates.**

Statistical estimation procedures for random variables and related quantities in actuarial models. With Mathematics 389J, covers the syllabus for the professional actuarial exam on model construction. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and Mathematics 341 or 340L, and 389J with a grade of at least C in each.

**M 189S. Seminar on Actuarial Practice.**

Presentations by working actuaries on current issues in actuarial practice. One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; and Actuarial Foundations 329 or Mathematics 329F or M 389F, and M389J or 389U with a grade of at least C in each.

**M 389T. Time Series and Survival-Model Estimation.**

Introduction to the probabilistic and statistical properties of time series; parameter estimation and hypothesis testing for survival models. Covers 30 percent of the syllabus for exam #4 of the Society of Actuaries and the Casualty Actuarial Society. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Mathematics 341 or 340L, 358K or 378K, and 389U.

**M 389U. Actuarial Contingent Payments I.**

Intermediate actuarial models for life insurance, property insurance, and annuities. Three lecture hours a week for one semester. Prerequisite: Graduate standing; Mathematics 362K with a grade of at least C; credit with a grade of at least C or registration for Mathematics 340L (or 341); and credit with a grade of at least C or registration for Actuarial Foundations 329 or Mathematics 329F or 389F.

**M 389V. Actuarial Contingent Payments II.**

Advanced actuarial models for life insurance, property insurance, and annuities. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Mathematics 389F and 389U with a grade of at least C in each.

**M 389W. Financial Mathematics for Actuarial Applications.**

Subjects include pricing, stock price, and interest rate models for actuarial applications. Tools include lognormal distribution, Brownian motion, Black-Scholes, and delta hedging. Three lecture hours a week for one semester. Prerequisite: Mathematics 389D with a grade of at least C-.

**M 390C. Topics in Algebra.**

Recent topics have included algebraic geometry, number theory, algebraic curves, algebraic number theory, algebraic functions, rational curves on varieties, homological algebra. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**M 391C. Topics in Analysis.**

Recent topics have included measure and integration, real variables, complex analysis, functional analysis, ordinary differential equations, partial differential equations, integral transforms, operator theory, approximation theory, abstract harmonic analysis. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**M 392C. Topics in Topology.**

Recent topics have included algebraic topology, differential topology, geometric topology, Lie groups. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**M 393C. Topics in Applied Mathematics.**

Recent topics have included quantum mechanics, statistical physics, ergodic theory, group representations, statistical mechanics, quantum field theory, introductory partial differential equations, monotone operators and partial differential equations, Hilbert space methods for partial differential equations, Hamiltonian dynamics, nonlinear functional analysis, Euler and Navier-Stokes equations, microlocal calculus and spectral asymptotics, calculus of variations. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**M 393N. Numerical Solution of Elliptic Partial Differential Equations.**

Same as Computer Science 393N. The numerical solution of large systems of linear algebraic equations arising in the solution of elliptic partial differential equations by discretization methods. Three lecture hours a week for one semester. Computational Science, Engineering and Mathematics 393N and Mathematics 393N may not both be counted. Prerequisite: Graduate standing; and Computational Science, Engineering, and Mathematics 383K, Computer Science 386K, Mathematics 387C, or consent of instructor.

**M 394C. Topics in Probability and Statistics.**

Same as Computational and Applied Mathematics 394C. Recent topics have included nonparametric statistics, advanced probability. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **M 395C. Topics in Logic and Foundations.**

Recent topics have included set theory, model theory, proof theory, axiomatic theorem proving, automatic theorem proving, foundations of mathematics, recursion theory. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **M 396C, 696C, 996C. Topics in Mathematics.**

Recent topics have included set theory, history of mathematics. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **M 396D, 696D, 996D. Conference Course.**

Supervised study in mathematics. Conference course. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **M 397C. Topics in Numerical Analysis.**

Recent developments and advanced topics in the field of numerical analysis. Three lecture hours a week for one semester. Mathematics 393D and 397C may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **M 197S, 397S. Seminar in Mathematics.**

One or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **M 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in mathematics and consent of the graduate adviser; for 698B, Mathematics 698A.

### **M 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in mathematics and consent of the supervising professor and the graduate adviser.

### **M 398T. Supervised Teaching in Mathematics.**

Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and appointment as a teaching assistant.

### **M 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

**M 680. .**

# **Mechanical Engineering Courses**

## **Mechanical Engineering: M E**

### **Lower-Division Courses**

#### **M E 302. Introduction to Engineering Design and Graphics.**

Introduction to mechanical engineering education and practice through lectures and laboratory experiences. Graphics and modeling fundamentals for engineering design: freehand sketching, computer

modeling of solid geometry, and generation of engineering drawings. Introduction to reverse engineering, computer-aided design, rapid prototyping, and manufacturing. Application of the design process and problem solving through individual and team projects. Two lecture hours and four laboratory hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 302, 210, 210H.

#### **M E 103. Studies in Engineering Design Graphics.**

Computer laboratory work in engineering design graphics for students with transfer credit for Mechanical Engineering 210 who need additional work. Three computer laboratory hours a week for one semester. May not be counted by students with credit for Mechanical Engineering 302, 210, or 210H. Prerequisite: Consent of the undergraduate adviser.

#### **M E 205. Introduction to Computers and Programming.**

Introduction to computer hardware and software systems; programming using a high-level language; mathematical software programming; and introduction to machine language. Includes significant hands-on programming opportunities. One lecture hour and three laboratory hours a week for one semester. May not be taken concurrently with Mechanical Engineering 302. Prerequisite: Credit or registration for Mathematics 408C or 408K.

#### **M E 210 (TCCN: ENGR 1204). Engineering Design Graphics.**

Graphics and modeling fundamentals for engineering design: freehand sketching, computer modeling of solid geometry, and generation of engineering drawings. Introduction to reverse engineering, computer-aided design, rapid prototyping, and manufacturing. Application of the design process to problem solving. Individual and team design projects. Two lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 302, 210, 210H. May not be counted toward the Bachelor of Science in Mechanical Engineering degree. Prerequisite: Credit or registration for Mathematics 408C or 408K.

#### **M E 210H. Engineering Design Graphics: Honors.**

Graphics and modeling fundamentals for engineering design: freehand sketching, computer modeling of solid geometry, and generation of engineering drawings. Introduction to reverse engineering, computer-aided design, rapid prototyping, and manufacturing. Application of the design process to problem solving. Individual and team design projects. One lecture hour and four laboratory hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 302, 210, 210H. May not be counted toward the Bachelor of Science in Mechanical Engineering degree. Prerequisite: Credit or registration for Mathematics 408C or 408K, and admission to an engineering honors program.

#### **M E 310T. Applied Thermodynamics.**

First and second laws of thermodynamics; thermodynamics processes, cycles, and heat transfer. Three lecture hours a week for one semester. Mechanical Engineering 320 and 310T may not both be counted. May not be counted toward the Bachelor of Science in Mechanical Engineering degree. Prerequisite: Chemistry 301, Mathematics 408D or 408M, and Physics 301 or 303K with a grade of at least C- in each.

#### **M E 311. Materials Engineering.**

An exploration of fundamental aspects of the structure, properties, and behavior of engineering materials. Three lecture hours a week for one semester. Prerequisite: The following courses with a grade of at least C- in each: Chemistry 301, Mechanical Engineering 302, Physics 303K, 103M; and credit or registration for Mechanical Engineering 111L, Physics 303L, and 103N.

**M E 111L. Materials Engineering Laboratory.**

Hands-on experiments in materials science and engineering topics and microstructure-property relationships discussed in Mechanical Engineering 311. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Mechanical Engineering 302 with a grade of at least C-, and credit or registration for Mechanical Engineering 311.

**M E 314D. Dynamics.**

Analysis of motions, forces, momenta, and energies in mechanical systems. Three lecture hours and one discussion hour a week for one semester. Mechanical Engineering 314D and 324 may not both be counted. Prerequisite: Engineering Mechanics 306 and Mathematics 408D or 408M with a grade of at least C- in each.

**M E 316T. Thermodynamics.**

Properties, heat and work, first and second laws, thermodynamic processes, introduction to ideal power cycles. Three lecture hours a week for one semester, with additional hours to be arranged. Only one of the following may be counted: Mechanical Engineering 326, 326H, 316T. Prerequisite: Chemistry 301, Mathematics 408D or 408M, and Physics 301 or 303K with a grade of at least C- in each.

**M E 218. Engineering Computational Methods.**

Applied numerical analysis, programming of computational algorithms using mathematical software, and applications of computational methods to the solution of mechanical engineering problems. One and one-half lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Mathematics 427J or 427K and Mechanical Engineering 205 with a grade of at least C- in each.

**M E 318M. Programming and Engineering Computational Methods.**

An investigation of applied numerical analysis, programming of computational algorithms using mathematical software, and applications of computational methods to the solution of mechanical engineering problems. Two lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Mathematics 427J or 427K with a grade of at least C-.

**M E 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Mechanical Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mechanical Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**Upper-Division Courses****M E 320. Applied Thermodynamics.**

First and second laws of thermodynamics; thermodynamic processes, cycles, and heat transfer. Three lecture hours a week for one semester. Mechanical Engineering 320 and 310T may not both be counted. May not be counted toward the Bachelor of Science in Mechanical Engineering degree. Prerequisite: Chemistry 301, Mathematics 408D, and Physics 303K.

**M E 120C. Humanitarian Engineering Seminar.**

Restricted to students pursuing Humanitarian Engineering certificate. One lecture hour a week for one semester. Mechanical Engineering 120C and 179M (Topic: Seminar in Humanitarian Engn) may not both be counted. Prerequisite: Consent of instructor.

**M E 324. Dynamics.**

Analysis of motions, forces, momenta, and energies in mechanical systems. Three lecture hours and one discussion hour a week for one semester. Mechanical Engineering 314D and 324 may not both be counted. Prerequisite: Engineering Mechanics 306 and Mathematics 408D with a grade of at least C- in each; and credit or registration for Mechanical Engineering 318M.

**M E 325L. Cooperative Engineering.**

This course covers the work period of mechanical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. Only one of the following may be counted: Mechanical Engineering 325L, 362K, 371K, 177K, 277K, 377K. The student must complete Mechanical Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. May be repeated for credit. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Mechanical Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Mechanical Engineering 325LY and appointment for a full-time cooperative work tour.

**M E 225M. Cooperative Engineering.**

This course covers the work period of mechanical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Mechanical Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Mechanical Engineering 225MA and appointment for a full-time cooperative work tour.

**M E 125N. Cooperative Engineering.**

This course covers the work period of mechanical engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Mechanical Engineering 325LZ or 225MB, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

**M E 326. Thermodynamics.**

Properties, heat and work, first and second laws, thermodynamic processes, introduction to ideal power cycles. Three lecture hours a week for one semester. For some sections, two discussion hours a week are also required. Only one of the following may be counted: Mechanical Engineering 326, 326H, 316T. Prerequisite: Chemistry 301, Mathematics 408D, and Physics 303K with a grade of at least C- in each.

**M E 326H. Thermodynamics: Honors.**

Properties, heat and work, first and second laws, thermodynamic processes, introduction to ideal power cycles. Three lecture hours a week for one semester. For some sections, two discussion hours a week are also required. Only one of the following may be counted: Mechanical Engineering 326, 326H, 316T. Prerequisite: Chemistry 301, Mathematics 408D, and Physics 303K with a grade of at least C- in each, and admission to an engineering honors program.

**M E 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Mechanical Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Mechanical Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken

in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **M E 330. Fluid Mechanics.**

Fluid properties, statics, conservation laws, inviscid and viscous incompressible flow, flow in confined streams and around objects. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 306, Mathematics 427J or 427K, and Mechanical Engineering 316T or 326 or 326H, with a grade of at least C- in each; and credit or registration for Mechanical Engineering 130L.

### **M E 130L. Experimental Fluid Mechanics.**

Experimental design concepts, uncertainty analysis, and systems analysis as applied to thermodynamics, fluid mechanics, and heat transfer systems. One lecture hour and two laboratory hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 330.

### **M E 333H. Engineering Communication: Honors.**

Professional communication skills for engineers, with emphasis on research, writing, editing, and oral presentation on topics of social and technical significance in engineering. Students collaborate to publish an online journal. Two lecture hours and two laboratory hours a week for one semester. Mechanical Engineering 333H and 333T may not both be counted. Prerequisite: Rhetoric and Writing 306 with a grade of at least C-, and admission to an engineering honors program.

### **M E 333T. Engineering Communication.**

Professional communication skills for engineers, with emphasis on research, writing, and oral presentation on topics of social and technical significance in engineering. Two lecture hours and two laboratory hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 333T, Biomedical Engineering 333T, Communication 333T, Civil Engineering 333T, Chemical Engineering 333T, Electrical Engineering 333T, Engineering Studies 333T, Mechanical Engineering 333T, Petroleum and Geosystems Engineering 333T. Prerequisite: Rhetoric and Writing 306 or English 303C with a grade of at least C-.

### **M E 334. Materials Engineering.**

Fundamental aspects of the structure, properties, and behavior of engineering materials. Three lecture hours a week for one semester. Prerequisite: Chemistry 301 with a grade of at least C- and credit or registration for Mechanical Engineering 134L, Physics 303L or 316, 103N or 116L, and Engineering Mechanics 319.

### **M E 134L. Materials Engineering Laboratory.**

Hands-on experiments in materials science and engineering topics and microstructure-property relationships discussed in Mechanical Engineering 334. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 334 and Engineering Mechanics 319.

### **M E 335. Engineering Statistics.**

Fundamentals of probability, distribution theory, data analysis and statistics, interval estimation, hypothesis testing, and statistical quality control. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Mathematics 408D or 408M with a grade of at least C-

### **M E 336. Materials Processing.**

Effects of processing on materials properties; materials selection. Three lecture hours a week for one semester. Prerequisite: Mechanical

Engineering 334 (or 311) and 134L (or 111L) or the equivalent and Engineering Mechanics 319 with a grade of at least C- in each.

### **M E 136L. Materials Processing Laboratory.**

Hands-on study of selected materials processing procedures and processing-microstructure-property relationships discussed in Mechanical Engineering 336. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Mechanical Engineering 111L and Engineering Mechanics 319 with a grade of at least C- in each, concurrent enrollment in Mechanical Engineering 336.

### **M E 136N, 236N. Concepts in Nuclear and Radiation Engineering.**

Restricted to students in the Colleges of Engineering, Liberal Arts, and Natural Sciences, and the Jackson School of Geosciences. For Mechanical Engineering 136N, one lecture hour a week for one semester; for 236N, the equivalent of two lecture hours a week for one semester. Prerequisite: Completion of at least thirty semester hours of college coursework, or consent of instructor.

### **M E 336P. Concepts in Nuclear and Radiation Engineering.**

Introduces the many different aspects and applications of nuclear and radiation engineering/physics. Subjects covered include: history of nuclear development, basic concepts of radiation and radioactivity, radioactive waste management, global warming and the impact of nuclear power plants, industrial applications, health physics, nuclear medicine, job opportunities at power plants, non-proliferation, nuclear security, discussion of opportunities for graduate schools at national laboratories, tour of University of Texas nuclear research reactor along with three introductory laboratories. Three lecture hours a week for one semester. Mechanical Engineering 336P and 379M (Topic: Concepts in Nuclear and Radiation Engineering) may not both be counted. Prerequisite: For engineering majors, Physics 303L and 103N or Physics 316 and 116L with a grade of at least C- in each; for others, upper-division standing.

### **M E 337C. Introduction to Nuclear Power Systems.**

Radioactivity, nuclear interactions: fission and fusion, fission reactors, nuclear power systems, nuclear power safety. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 318M or 218 with a grade of at least C-; Physics 303L and 103N or Physics 316 and 116L with a grade of at least C- in each; for others, upper-division standing and written consent of instructor.

### **M E 337F. Nuclear Environmental Protection.**

Ionizing radiation and its interactions with matter and living tissues; radioactive decay kinetics; external and internal dose measurement; transportation through the environment; managing radioactive waste streams; and safeguards. Three lecture hours a week for one semester. Mechanical Engineering 337F and 389C may not both be counted. Prerequisite: For engineering majors, Physics 303L and 103N or Physics 316 and 116L with a grade of at least C- in each; for others, upper-division standing.

### **M E 337G. Nuclear Safety and Security.**

An investigation of policy and technical aspects related to nuclear safety and security. Participants will evaluate the proliferation of risk from facilities within the nuclear fuel cycle. They will calculate the criticality conditions for a nuclear assembly and derive parent/daughter decay equations. Nuclear forensics evaluations will be conducted on real-world environmental measurements. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Physics 303L and 103N or Physics 316 and 116L with a grade of at least C- in each; for others, upper-division standing and written consent of instructor.

### **M E 338. Machine Elements.**

Analysis for the design and manufacture of basic mechanical elements, and their role in the design of machines; application of finite element modeling. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 319 and Mechanical Engineering 334 with a grade of at least C- in each.

### **M E 339. Heat Transfer.**

Steady and transient heat conduction; forced and natural convection; radiation; introduction to heat exchangers and applications. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 218 or 318M, 330, and 130L with a grade of at least C- in each; and credit or registration for Mechanical Engineering 139L.

### **M E 139L. Experimental Heat Transfer.**

Experimental design concepts, uncertainty analysis, and systems analysis as applied to thermodynamics, fluid mechanics, and heat transfer systems. One lecture hour and two laboratory hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 339.

### **M E 340. Mechatronics.**

Theory and application of electrical circuits, electronics, and electromechanical devices; concepts in electrical power transmission; instrumentation; feedback; integration of electronics and instrumentation with mechanical engineering systems (mechatronics). Three lecture hours a week for one semester. Aerospace Engineering 375 and Mechanical Engineering 340 may not both be counted. Prerequisite: Mechanical Engineering 318M, Physics 303L or 316, and 103N or 116L with a grade of at least C- in each; and credit or registration for Mechanical Engineering 140L.

### **M E 140L. Mechatronics Laboratory.**

Hands-on laboratory using hand-held and bench-top electronic test and prototyping equipment for circuits and mechatronics applications; computer-aided instrumentation and data acquisition; laboratory study in design, prototyping, and testing with electrical and electronics components and electromechanical devices. One lecture hour and two laboratory hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 340.

### **M E 343. Thermal-Fluid Systems.**

Analysis and design of integrated systems involving simultaneous application of thermodynamics, heat transfer, and fluid mechanics. Applications to power generation, vehicle engineering, materials processing, environmental control, and manufacturing. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Mechanical Engineering 330, 130L, 339, and 139L with a grade of at least C- in each.

### **M E 344. Dynamic Systems and Controls.**

Lumped physical system models; electrical, fluid, mechanical, and thermal system analysis; linear system transient, steady-state behavior; introduction to feedback control. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J or 427K, Mechanical Engineering 205 or 318M, and 324 or 314D with a grade of at least C- in each; Mechanical Engineering 340 and 140L with a grade of at least C- in each; and credit or registration for Mechanical Engineering 144L or 244L.

### **M E 144L, 244L. Dynamic Systems and Controls Laboratory.**

Modeling of engineering systems, digital simulation, and assessment of results with experimental study; methods for analysis of first- and second-order systems, system identification, frequency response and feedback control principles; hands-on experimentation with mechanical, fluid, electrical, and magnetic systems; data acquisition and analysis

using oscilloscopes and microcomputer-based analog-to-digital and digital-to-analog conversion; theoretical and practical principles governing the design and use of various sensors and transducers. For 144L, one lecture hour and two laboratory hours a week for one semester; for 244L, one lecture hour and three laboratory hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 344.

### **M E 347. Processing of Materials.**

Analysis of forces in processing operations; effects of friction and their control; metalworking efficiencies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For engineering majors, Mechanical Engineering 334 or the equivalent; for nonengineering majors, upper-division standing and written consent of instructor.

**Topic 1: Powder Processing.** Powder particle characterization and size/shape/distribution, powder synthesis, compaction, sintering theory, sintering maps, full-density processing, powder-processed part microstructure and properties.

**Topic 2: Deformation Processing.** Analysis of forces in processing operations; effects of friction and their control; slab method; upper-bound force theory; slip-line field theory; metalworking efficiencies.

### **M E 348E. Advanced Mechatronics I.**

Integrated use of mechanical, electrical, and computer systems for information processing and control of machines and devices. System modeling, electromechanics, sensors and actuators, basic electronics design, signal processing and conditioning, noise and its abatement, grounding and shielding, filters, and system interfacing techniques. Three lecture hours and two laboratory hours a week for one semester. Mechanical Engineering 348C and 348E may not both be counted. Prerequisite: For engineering majors, Mechanical Engineering 340 or the equivalent; for nonengineering majors, upper-division standing and written consent of instructor.

### **M E 348F. Advanced Mechatronics II.**

Interfacing microcomputers with sensors and actuators; hybrid (analog/digital) design; digital logic and analog circuitry; data acquisition and control; microcomputer architecture, assembly language programming; signal conditioning, filters, analog-to-digital and digital-to-analog conversion. Three lecture hours and two laboratory hours a week for one semester. Mechanical Engineering 348D and 348F may not both be counted. Prerequisite: For engineering majors: Mechanical Engineering 340 or the equivalent; for nonengineering majors: upper-division standing and written consent of instructor.

### **M E 349. Corrosion Engineering.**

Corrosion principles; electrochemical, environmental, and metallurgical effects; types of corrosion; corrosion testing and prevention; modern theories: principles and applications. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C-, Mechanical Engineering 316T or 326 (or 326H) or the equivalent with a grade of at least C-; for others, upper-division standing and written consent of instructor.

### **M E 350. Machine Tool Operations for Engineers.**

Hands-on manual and computer-numerical-controlled machine tool operation. Part design and tool selection for production. One lecture hour and six laboratory hours a week for one semester. Mechanical Engineering 350 and 379M (Topic 7: Machine Tool Operations for Engineers) may not both be counted. Offered on the letter-grade basis only.

**M E 350D. Design and Control of Robots for Rehabilitation.**

Explore the roles of sensors, actuators, and neural circuits for biological movement control from an engineering perspective. Examine current approaches to robotic and mechatronic devices that support and enhance human movement in health and following neurologic injuries like stroke and spinal cord injury are discussed. Study the latest literature in neuromuscular controls, neuromotor recovery, and design and control of rehabilitation robots. Three lecture hours a week for one semester. Mechanical Engineering 350D and 379M (Topic: Dsgn/Cntrl Of Robots For Rehab) may not both be counted. Prerequisite: Consent of instructor.

**M E 350R. Robot Mechanism Design.**

Studies the analysis and synthesis of motions of mechanisms in order to design robotic systems. Examines motion properties of mechanisms including degrees of freedom, velocity, and acceleration. Explores ideas and motion analysis for robotic systems for a wide range of applications including spatial, industrial and medical robotics. Three lecture hours a week for one semester. Mechanical Engineering 350R and 379M (Topic: Robot Mechanism Design) may not both be counted. Prerequisite: Engineering Mechanics 306, and Mechanical Engineering 218 or 318M and 314D or 324, with a grade of at least C- in each.

**M E 352K. Engineering Computer Graphics.**

Introduction to interactive computer graphics as a tool in computer-aided design. Use of graphics software packages. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: For non-engineering majors, upper-division standing and written consent of instructor.

**M E 353. Engineering Finance.**

Evaluating the financial impact of engineering decisions. Comparing alternatives with cash flow analysis considering rate of return, inflation, and taxes, with emphasis on analyzing risk. Managing complex projects with activity scheduling and resource allocation considering cash flows. Methods include probabilistic analysis and simulation. Three lecture hours and two discussion hours a week for one semester. Prerequisite: Mechanical Engineering 335 with a grade of at least C-.

**M E 354. Introduction to Biomechanical Engineering.**

The application of mechanical engineering principles to problems in the life sciences; transport phenomena of physiological solids and fluids; biosignal analysis and instrumentation; biomaterials design and compatibility; principles of medical imaging, diagnostics, and therapeutics; rehabilitation engineering. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mathematics 427J or 427K with a grade of at least C-; for others, upper-division standing and written consent of instructor.

**M E 354M. Biomechanics of Human Movement.**

Modeling and simulation of human movement; neuromuscular control; computer applications; introduction to experimental techniques. Three lecture hours a week for one semester. Biomedical Engineering 342 and Mechanical Engineering 354M may not both be counted. Prerequisite: For non-engineering majors, upper-division standing and written consent of instructor.

**M E 355K. Engineering Vibrations.**

Time-domain and frequency-domain analysis of vibrating systems; matrix methods, instrumentation, and vibration control; numerical methods. Three lecture hours a week for one semester. Prerequisite: Mathematics 427J or 427K, and Mechanical Engineering 314D or 324 with a grade of at least C- in each.

**M E 259, 359. Materials Selection.**

Description of commercial metals, polymers, ceramics, concrete, and wood for use in mechanical engineering applications. Applications include strength, toughness, stiffness, fatigue, creep, corrosion, casting, forming, machining, and welding. Two or three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 or the equivalent; for nonengineering majors, upper-division standing and written consent of instructor.

**M E 360. Vehicle System Dynamics and Controls.**

Fundamentals of ground vehicle dynamics, tire-road mechanics, vehicle control systems, vehicle stability, and simulation of vehicle systems. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 360, 379M (Topic: Vehicle System Dynamics and Controls), 390, 397 (Topic: Vehicle System Dynamics and Controls). Prerequisite: For engineering majors, Mechanical Engineering 344 with a grade of at least C-; for others, upper-division standing and written consent of instructor.

**M E 360C. Cyber Vehicle Systems.**

Study of the engineering principles of autonomous mobile robots. Subjects include understanding the dynamics of vehicle systems, and the principles and practical implementation of sensing, actuation, and control. Emphasis on providing practical laboratory study of these subjects using mobile robot platforms, and the use of the commercial software package LabVIEW for programming of real-time data acquisition and control targets. Simulation studies may also be conducted in LabVIEW and/or the Matlab environment, so some proficiency in use of both of these software packages is expected. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 360C, 379M (Topic: Cyber Vehicle Systems), 390C, 397 (Topic: Cyber Vehicle Systems). Prerequisite: For engineering majors, Mechanical Engineering 344 with a grade of at least C-; for others, upper-division standing and written consent of instructor.

**M E 260K, 360K. Metallurgy of Engineering Alloys.**

Microstructure and property relationships of metals and alloys; steel alloys; aluminum alloys; titanium alloys; magnesium alloys; solidification and casting; thermomechanical processing; heat treating and solid-state phase transformations. Two or three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C-; for others, upper-division standing and written consent of instructor.

**M E 360L. Turbomachinery and Compressible Flow.**

Positive displacement and dynamic rotating machinery; pumps, compressors, and turbines; performance characteristics and scaling laws. One-dimensional compressible flow with area change, friction, or heat addition. Normal and oblique shock waves; Prandtl-Meyer expansion. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 330, 130L and 139L.

**M E 360N. Intermediate Heat Transfer.**

Multidimensional and transient diffusion; laminar and turbulent convection; radiation exchange; special topics. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 339.

**M E 361E. Nuclear Reactor Operations and Engineering.**

Fission and chain reactions; neutron diffusion and moderation; reactor equations; Fermi Age theory; and multigroup and multiregional analysis. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 318M or 218 and Physics 303L and 103N or Physics 316 and 116L with a grade of at least

C- in each; for others, upper-division standing and written consent of instructor.

### **M E 361F. Radiation and Radiation Protection Laboratory.**

Introduction to the application of radiation and radiation protection instrumentation. Lecture and laboratory topics include personnel monitoring, radiation detection systems, gamma-ray spectroscopy, determination of environmental radiation, counting statistics, gamma and neutron shielding, and air sampling. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 318M or 218 with a grade of at least C-, Physics 303L and 103N or Physics 316 and 116L with a grade of at least C- in each; for others, upper-division standing and written consent of instructor.

### **M E 261M, 361M. Materials Thermodynamics.**

First and second laws; heat of combustion; heat engine cycles; chemical equilibria and/or phase equilibria; point defects in crystals. Two or three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C-, Mechanical Engineering 326 or 326H with a grade of at least C-; for others, upper-division standing and written consent of instructor.

### **M E 362K. Readings in Engineering.**

A study of the interrelated problems of society, technology, and energy. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 325L, 362K, 371K, 177K, 277K, 377K.

### **M E 362S. Development of a Solar-Powered Vehicle.**

Analysis, design, and construction of a solar-powered car for national competitions involving other universities. Study of electrical, mechanical, and aerodynamic systems. Three lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Electrical Engineering 362S, 379K (Topic: Development of a Solar Car for NASC), Mechanical Engineering 362S, 379M (Topic: Development of a Solar-Powered Vehicle). Prerequisite: Consent of instructor.

### **M E 363L. Energy Systems Laboratory.**

Experimental analysis of thermal energy systems, including heat transfer equipment, engines, the University chilling station and the University power plant. Use of a variety of industrial instrumentation for assessment of system and component performance and of experimental uncertainty. Written and oral technical communication of experimental results. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Mechanical Engineering 339 and 139L.

### **M E 363M. Energy Technology and Policy.**

An overview of energy technologies, fuels, environmental impacts and public policies. Subjects are interdisciplinary and include an introduction to quantitative concepts in energy, including the differences among fuels and energy technologies, energy policy levers, and the societal aspects of energy, such as culture, economics, war, and international affairs. Includes brief snippets of energy history, use of real-world examples, and looks forward into the future. Interactive and lecture-oriented around current events related to energy. Three lecture hours a week for one semester. Mechanical Engineering 363M and 379M (Topic: Energy Technology and Policy) may not both be counted. Prerequisite: Upper-division standing.

### **M E 364D. Intermediate Dynamics.**

Focuses on efficient formulation and solution of equations of motion for complex 3D multi-body mechanical systems. Emphasizes the formulation of the dynamical equations of motion using Kane's method

and will use symbolic and numerical simulation techniques (MATLAB(R) and MotionGenesis) to solve these equations. Preparation for advanced research and professional work analyzing the dynamics of complex multi-body mechanical systems. Three lecture hours a week for one semester. Mechanical Engineering 364D and 379M (Topic: Intermediate Dynamics) may not both be counted. Prerequisite: Upper-division standing and the following courses with a grade of at least a C-: Mechanical Engineering 314D or equivalent and 318M or equivalent.

### **M E 364L. Automatic Control System Design.**

Feedback principles; control components; industrial compensators; Routh, Nyquist, Bode, and root locus methods; controller design; continuous and discrete time control. Three lecture hours and one-half laboratory hour a week for one semester. Prerequisite: Mechanical Engineering 344.

### **M E 365E. Engineering Entrepreneurship.**

Focus on developing a basic understanding for the assessment of emerging technologies including the analysis of the status and future development issues, establish a comprehension of what 'market' means in terms of potential technology applications, and of how that market is identified and characterized. Create new knowledge about the potential match of an emerging technology with a defined market as a member of a multidisciplinary team, establish a basic understanding of IP rights, assessment and strategy related to emerging technology, and assess the course and participate in discussions about how it can be evolved for future offerings. Exploration the innovation and technology commercialization process especially as it relates to individual expertise and career goals. Three lecture hours a week for one semester. Mechanical Engineering 365E and 379M (Topic: Engineering Entrepreneurship) may not both be counted. Prerequisite: Upper-division standing.

### **M E 365K. Finite Element Method.**

Introduction and application of the finite element method in engineering analysis and design problems; demonstration of techniques using commercial codes. Three lecture hours a week for one semester. Prerequisite: Engineering Mechanics 319 and Mathematics 427J or 427K with a grade of at least C- in each.

### **M E 365L. Industrial Design for Production.**

Current techniques for making transitions from theoretical concepts to cost effective designs suitable for manufacturing. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 338.

### **M E 366J. Mechanical Engineering Design Methodology.**

An examination of structured methodologies for designing mechanical systems; reverse engineering/redesign projects and conceptual design projects. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Mechanical Engineering 302, 330, 130L, 335, 338, 339, 139L, 340, and 140L; one of the following with a grade of at least C-: Mechanical Engineering 333H, 333T, Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, or Petroleum and Geosystems Engineering.

### **M E 266K. Mechanical Engineering Design Project.**

Creative design, analysis, selection, development, and fabrication of engineering components and systems. Development of team project with faculty adviser and sponsoring engineer. Two lecture hours a week for one semester, with additional hours to be arranged. Prerequisite: Mechanical Engineering 344, 144L or 244L, 353, and 366J with a grade of at least C- in each.

**M E 366L. Operations Research Models.**

Same as Operations Research and Industrial Engineering 366. Formulation and solution-interpretation for operations research models requiring, for example, optimization, simulation, or analysis of Markov chains or queues. Applications include manufacturing design and control, routing and scheduling, plant location, inventory analysis, and management of queueing systems. Three lecture hours a week for one semester. Mechanical Engineering 366L and Operations Research and Industrial Engineering 366 may not both be counted. Prerequisite: For engineering majors, Mathematics 408D or 408M and Mechanical Engineering 318M with a grade of at least C- in each; for non-engineering majors, upper-division standing and written consent of instructor.

**M E 266P. Design Project Laboratory.**

Development of individual team project in association with faculty adviser and sponsoring project engineer. Four laboratory hours a week for one semester. Prerequisite: Mechanical Engineering 344, 144L or 244L, 353, and 366J with a grade of at least C- in each.

**M E 366Q. Deterministic Methods for Operations Research.**

Theory and algorithms for deterministic operations research methods. Algorithms for solving linear, integer, and nonlinear optimization models. Three lecture hours a week for one semester. Prerequisite: For non-engineering majors, upper-division standing and written consent of instructor.

**M E 366R. Stochastic Methods for Operations Research.**

Theory and algorithms for stochastic operations research methods. Algorithms related to stochastic processes: Markov chain analysis; queueing theory; stochastic inventory theory and decision analysis. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 335 or the equivalent; for non-engineering majors, upper-division standing and written consent of instructor.

**M E 366T. Biomems and Bionems.**

Micro/Nano technology has been used to create many new materials and devices with a vast range of applications in materials science, electronics and photonics, and biomedical applications. BioMEMS and BioNEMS is the application of micro/nano technology in the fields of biomedical and health sciences by offering advantages of small size (from submicron to a few mm), low cost, high throughput, and importantly requiring much less sample/reagent. Three lecture hours a week for one semester. Mechanical Engineering 366T and 379M (Topic: Biomems and Bionems) may not both be counted. Prerequisite: Upper-division standing.

**M E 367S. Simulation Modeling.**

Same as Operations Research and Industrial Engineering 367. Basic concepts of discrete-event simulation. Statistical input and output analysis. Application of simulation software. Modeling of systems under uncertainty. Three lecture hours a week for one semester. Mechanical Engineering 367S and Operations Research and Industrial Engineering 367 may not both be counted. Prerequisite: For engineering majors, Mechanical Engineering 318M with a grade of at least C-, Mechanical Engineering 335 or the equivalent; for non-engineering majors, upper-division standing and written consent of instructor.

**M E 368C. Additive Manufacturing.**

Additive manufacturing (AM) is the use of layer-based processes for producing parts directly from computer (CAD) models, without part-specific tooling. Students learn about a variety of additive manufacturing (AM) technologies, their potential to support rapid prototyping and manufacturing, and some of the important research challenges associated with AM. Three lecture hours a week for one semester.

Mechanical Engineering 368C and 379M (Topic: Additive Manufacturing) may not both be counted. Prerequisite: Grade of at least C- or registration for Mechanical Engineering 366J.

**M E 368J. Computer-Aided Design.**

Application of computers to design problems and simulation of mechanical systems; creation of interactive special applications programs. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 338.

**M E 369L. Introduction to Computational Fluid Dynamics.**

Applied numerical analysis, including solution of linear algebraic equations and ordinary and partial differential equations; modeling of physical processes, including fluid flow and heat and mass transfer; use of general purpose computer codes, including commercial computational fluid dynamics software packages. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 347, Computational Engineering 347, Mechanical Engineering 369L. Prerequisite: Credit or registration for Mechanical Engineering 330 and 339.

**M E 369M. Computational Methods in Thermal/Fluid Systems.**

Use of basic tools of computational mathematics to set up numerical simulations for a variety of problems in thermo fluids. Explicit versus implicit time-stepping schemes, the issues of numerical stability and numerical errors, the issue of computational costs, difficulties with boundary and initial conditions, basic decision paths in the choice of numerical methods depending on the target system, and design of diagnostic steps. Three lecture hours a week for one semester. Mechanical Engineering 369M and 379M (Topic: Comput Meth Thermal/Fluid Sys) may not both be counted. Prerequisite: Upper-division standing.

**M E 369P. Application Programming for Engineers.**

Designed for students who have some experience in programming and are interested in the sharing and development of open source software applications. Provides an introduction to the Python Programming language, an open source, flexible, and intuitive debug programming language, with an emphasis on system modeling, simulation, data analysis, and software/data management. Students will create mini projects in Python that demonstrate software design and organization, debugging, open source practices, and data visualization. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 318M or the equivalent with a grade of at least C-; for others, upper-division standing and written consent of instructor.

**M E 371D. Medical Device Design and Manufacturing.**

Explores how to solve medical device design problems using systematic design thinking and practices. Interpret clinical needs and define an open engineering medical device design problem, including formulating engineering requirements/specifications to address a marketable need, generate concepts in a way that promotes both creativity and usefulness, make well-informed, well-justified design decisions in the early and later stages of design, design and analyze experiments, follow statistical best practices in Design of Experiments(DoE), embody solutions with "Design for X" considerations, and communicate intermediate and final designs clearly and effectively in written and oral formats. Three lecture hours a week for one semester. Only one of the following may be counted: Biomedical Engineering 363E, 377T (Topic: Medical Device Design and Manufacturing), Mechanical Engineering 371D, 379M (Topic: Medical Device Design and Manu). Prerequisite: Upper-division standing.

**M E 371K. Legal Aspects of Engineering Practice.**

Legal considerations in the practice of engineering; specifications and contracts for equipment and engineering services. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 325L, 362K, 371K, 177K, 277K, 377K. Prerequisite: Upper-division standing.

**M E 372J. Robotics and Automation.**

Component technologies for precision machines based on dynamic modeling and motion programming: cams, linkages, planar robot manipulators and open architecture vehicles. Homework includes 15 simulations. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and credit or registration for Mechanical Engineering 324.

**M E 372M. Mechanism Design.**

Design of planar mechanisms for applications that require rigid body guidance, function generation, and path generation. Graphical and analytical techniques. Computer-aided design projects. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 324.

**M E 372N. Design of Smart Mechanisms.**

Design of reprogrammable multiple-degree-of-freedom architectures. The course addresses various mechanical configurations and stresses the integrated design approach to sensing/actuation/control architecture and control software. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and consent of instructor.

**M E 374C. Combustion Engine Processes.**

Principles of internal combustion engines, fuels, carburetion, combustion, exhaust emissions, knock, fuel injection, and factors affecting performance. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 339 or consent of instructor.

**M E 374D. Automotive Engineering Laboratory.**

Engines and emissions. Students use commercial engine-modeling software to explore effects of valve timing and intake tuning and conduct experiments with vehicle emissions, ignition timing, engine mechanisms, engine controls, and emissions control. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 374C.

**M E 374E. Race Car Engineering and Project Management.**

Explores designing a Formula SAE race car, a hot rod (UT's 1937 Chevy project), and a Formula SAE Electric race car. Divided into four major sections: Project Management, including tools for project organization and management, Powertrain, including engine basics, calibration, intake and exhaust design, cooling and oiling systems, fuel economy and emissions, transmission/differential, vehicle performance modeling, Brake systems, longitudinal weight transfer, longitudinal force requirements of the tires for both braking and acceleration, tires and tire models, and Vehicle dynamics (suspension systems, anti-roll bars, lateral weight transfer, tires and tire models). Three lecture hours a week for one semester. Mechanical Engineering 374E and 379M (Topic: Racecar Engr & Proj Management) may not both be counted. Prerequisite: The following courses with a grade of at least a C- in each: Mechanical Engineering 330 and 130L; and credit or registration for 339 and 139L.

**M E 374F. Fire Science.**

Analysis of the dynamics and consequences of fire in structures. Topics include combustion thermochemistry, premixed and diffusion flames, fluid mechanics of fire, human tenability in burning structures, and computer modeling of fires. Three lecture hours a week for one semester. Prerequisite: For engineering majors, upper-division standing and credit

or registration for Mechanical Engineering 339 and 139L with a grade of at least C- in each; for others, upper-division standing and written consent of instructor.

**M E 374L. Design of Thermal Systems.**

Methodology and approach to design of thermal energy systems; component and system modeling; optimization, including economic considerations. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 339 or the equivalent.

**M E 374R. Design of Air Conditioning Systems.**

Load calculations, design of thermal distribution systems, component selection and control. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Mechanical Engineering 339.

**M E 374S. Solar Energy Systems Design.**

Insolation characteristics and measurement, component design, solar energy system modeling, introduction to photovoltaic systems, cost analysis, and case studies. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 339 or the equivalent.

**M E 374T. Renewable Energy Technology.**

Cultivates an enhanced level of theoretical and conceptual understanding of thermodynamics, fluid mechanics and heat transfer, and of how these disciplines apply to the design and analysis of complex thermal-fluid systems. Enhances skills in designing, programming and debugging software tools for systems analysis, working in teams, and communicating engineering results in a professional manner. Three lecture hours a week for one semester. Mechanical Engineering 374T and 379M (Topic: Renewable Energy Technology) may not both be counted. Prerequisite: The following courses with a grade of at least a C- in each: Mechanical Engineering 316T, 318M, 330, 130L, 339, and 139L.

**M E 376N. High Throughput Nanopatterning.**

Introduction to the basic tools and materials involved in the patterning processes needed to create nano-scale structures and functional materials and discusses the relevance of these processes to applications in the electronics, display, and energy industries. Includes take-home portable nano-labs which allow hands-on experience in nano-scale fabrication processes and relevant nanometrology techniques. Explores industry and research roadmaps that provide relevant metrics and timelines for fabrication, materials, nano-enabled components and devices. Exposure to relevant computational modeling and simulation tools allows exploration of novel nano-enabled components and devices. Three lecture hours a week for one semester. Mechanical Engineering 376N and 379M (Topic: High Throughput Nanopatterning) may not both be counted. Prerequisite: Upper-division standing.

**M E 177K, 277K, 377K. Projects in Mechanical Engineering.**

Independent project carried out under the supervision of a faculty member in mechanical engineering. Student prepares a project proposal and a final report, each of which is evaluated by the faculty committee on individual projects. For 177K, three to five laboratory hours and one consultation hour with the faculty supervisor a week for one semester; for 277K, five to ten laboratory hours and one consultation hour with the faculty supervisor a week for one semester; for 377K, ten to fifteen laboratory hours and one consultation hour with the faculty supervisor a week for one semester. Only one of the following may be counted: Mechanical Engineering 325L, 362K, 371K, 177K, 277K, 377K. Prerequisite: A University grade point average of at least 2.50 and a grade point average in the major of at least 2.50; and approval of project proposal by the faculty committee on individual projects.

### **M E 378C. Electroceramics.**

Bonding; crystal structures; defects; phase diagrams; glass ceramics; electrical, dielectric, magnetic, and optical ceramics. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C-; for others, upper-division standing and written consent of instructor.

### **M E 378D. Failure Analysis.**

Introduction to methodology of analyzing failures of engineering parts and devices. Explores a broad range of analysis, but the focus is on understanding fractography and relating this back to material and mechanics relevant to failure to determine the likely root cause(s). Lectures are primarily based on case studies and are supplemented by two hands-on class projects, one performed individually and the other larger project performed as a team project. Three lecture hours a week for one semester. Mechanical Engineering 378D and 379M (Topic: Failure Analysis) may not both be counted. Prerequisite: For engineering majors, the following courses with a grade of at least a C- in each: Engineering Mechanics 319, Mechanical Engineering 334 and 134L or equivalent.

### **M E 378E. Nanotechnology for Sustainable Energy.**

Demonstrates the role of nanoscale materials in solving one of the most critical socio-economic issues of our time, affordable and sustainable energy. An overview of emerging nanotechnology, and how people can critically impact many energy technologies (from energy harvesting, conversion, to storage). Explores various types of energy devices, including solar cell, solar fuel, piezoelectrics, thermoelectrics, battery, supercapacitor, and fuel cell as well as basic device principles, current technology status and new opportunities of nanotechnology for energy device applications. Content is at the intersection of nanoscale science and engineering, and energy science and technology. Three lecture hours a week for one semester. Mechanical Engineering 378E and 379M (Topic: Nanotech for Sustainable Energy) may not both be counted. Prerequisite: Upper-division standing, and the following courses with a grade of at least C-: Chemistry 301, Mechanical Engineering 334 or equivalent, Physics 303L and 103N or Physics 316 and 116L.

### **M E 378K. Mechanical Behavior of Materials.**

Elastic deformation; viscoelasticity; yielding, plastic flow, plastic instability, strengthening mechanisms; fracture, fatigue, creep; significance of mechanical properties tests. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 or the equivalent and 134L with a grade of at least C- in each; for others, upper-division standing and written consent of instructor.

### **M E 378P. Properties and Applications of Polymers.**

Introduction to polymers as structural materials: polymerization, polymer structure, physical and mechanical properties, processing and fabrication. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C-, Mechanical Engineering 326 or 326H or the equivalent with a grade of at least C-; for others, upper-division standing and written consent of instructor.

### **M E 378Q. Polymer Nanocomposites.**

Fundamentals, properties, and applications of polymer nanocomposites. Three lecture hours a week for one semester. Mechanical Engineering 378Q and 379M (Topic: Polymer Nanocomposites) may not both be counted. Prerequisite: Mechanical Engineering 334 and 134L with a grade of at least C-.

### **M E 378S. Structural Ceramics.**

Powder processing, powder characterization, forming techniques, densification, and development of microstructure; emphasis on understanding materials, selection, and microstructure-mechanical property relationships. Three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 334 (or 311) or the equivalent with a grade of at least C-; for others, upper-division standing and written consent of instructor.

### **M E 679H. Undergraduate Honors Thesis.**

Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis. Individual instruction for two semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Mechanical Engineering 679HA and enrollment in the Engineering Honors Program.

### **M E 179M, 279M, 379M. Topics in Mechanical Engineering.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Prerequisites vary with the topic.

**Topic 1: Design of Machines and Systems.** Restricted to students in the UTeach Engineering Program. Introduction to techniques for analyzing and designing machine components (linkages, cams, springs, gears, etc.) within the context of reverse engineering and redesigning existing products. Covers the application of structure methods for engineering design and prototyping. Mechanical Engineering 179M, 279M, 379M (Topic 1) and 379M (Topic: Design of Machines and Systems) may not both be counted.

### **M E 379N. Engineering Acoustics.**

Same as Electrical and Computer Engineering 363N and Electrical Engineering 363N. Principles of acoustics, with applications drawn from audio engineering, biomedical ultrasound, industrial acoustics, noise control, room acoustics, and underwater sound. Three lecture hours a week for one semester. Only one of the following may be counted: Electrical and Computer Engineering 363N, Electrical Engineering 363N, Mechanical Engineering 379N. Prerequisite: Mathematics 427J or 427K with a grade of at least C-.

### **M E 379Q. Musical Acoustics.**

Same as Music 379Q. Restricted to music majors. Designed to help students develop the intuition and vocabulary for understanding the basic physical principles relevant to musical instruments and sound (e.g., mechanics, vibrations, acoustics, harmonics, acoustic-electronic conversions, speakers, hearing, perception, room acoustics) in order to be able to read basic articles on the subject of musical acoustics. Material is kept relevant to musical principles (e.g., performance techniques, scales/harmony) throughout. Three lecture hours a week for one semester. Only one of the following may be counted: Arts and Entertainment Technologies 320D, 339 (Topic: Musical Acoustics), Mechanical Engineering 379M (Topic: Musical Acoustics), 379Q, Music 376J (Topic: Musical Acoustics), 379Q.

## **Graduate Courses**

### **M E 180M, 280M, 380M, 680M, 980M. Research.**

Individual research. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in mechanical engineering.

### **M E 380Q. Mathematical Methods in Engineering.**

Applications of mathematical analysis and numerical concepts to typical engineering problems. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and Mathematics 427K or the equivalent.

**Topic 1: Engineering Analysis: Analytical Methods.** Analytical solutions for linear ordinary differential equations; numerical integration of ordinary differential equations; Fourier series and integrals; the Laplace transform; the solution of partial differential equations; vector analysis and linear transformations.

**Topic 2: Engineering Analysis: Advanced Analytical Methods.** Classification and solution of partial differential equations; includes linear superposition, separation of variables, Fourier and Laplace transform methods, Green's functions, similarity solution, and spectral methods; introduction to solution of nonlinear partial differential equations, including both exact and approximate techniques, with a strong emphasis on physical systems.

**Topic 3: Perturbation Methods.** Introduction to perturbation theory; regular expansions and sources of nonuniformities; method of strained coordinates and multiple scales; method of matched asymptotic and composite expansions. Places strong emphasis on the relationship between the physical and the mathematical basis and on the crucial role of nondimensionalization in problem solving.

**Topic 4: Numerical Methods for Differential Equations.** Numerical solution of ordinary differential equations, both initial and boundary value equations; includes quasilinearization, shooting methods, and method of adjoints; classification and solution of partial differential equations by the finite difference method; stability and convergence criteria for various schemes; special attention to nonlinear equations with a strong emphasis on the Navier-Stokes equations.

### **M E 380R. Robot Mechanism Design.**

Examines analysis and synthesis of motions of mechanisms in order to design robotic systems. Motion properties of mechanisms including degrees of freedom, velocity, and acceleration will be studied. Discusses design ideas and motion analysis for robotic systems for a wide range of applications including spatial, industrial and medical robotics. Simulates and analyzes motions of multi-link mechanisms in the MATLAB programming environment. Design and build robots with interesting mechanisms and mechatronics elements as part of group projects. Studies machining, assembly, mechatronics and programming through the projects. Three lecture hours a week for one semester. Mechanical Engineering 380R and 397 (Topic: Robot Mechanism Design) may not both be counted. Prerequisite: Graduate Standing.

### **M E 381M. Statistical Methods for Process Control Manufacturing.**

Restricted to Option III Mechanical Engineering Master's degree students. Covers fundamental methods for statistical monitoring of processes, including Shewhart control charts, control charts for individual measurements, CUSUM charts and attribute control charts. Explores the design of experiments, including the statistical evaluation of main and interaction effects, as well as intelligent experimentation through reduced factorial experimental design. Outlines DOE-based search techniques for surface response based design optimization. Offers advanced research in model based and active process control in highly flexible and sophisticated manufacturing systems, such as semiconductor manufacturing lithography of flexible automotive assembly lines. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the Executive ME program.

### **M E 381P. Dynamics of Fluids.**

Detailed study of fluid dynamics, boundary layer phenomena, and incompressible flows. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Fundamentals of Incompressible Flow.** Fundamentals. Kinematic and dynamic equations for compressible viscous flow, incompressible flow criteria, viscous flow patterns, and solution methods.

**Topic 2: Compressible Flow and Turbomachinery.** Two-dimensional flow at subsonic and supersonic Mach numbers, method of characteristics, shock tubes, oblique shocks, wave interactions.

**Topic 3: Dynamics of Turbulent Flow.** Fundamentals of turbulence, including scaling, transport, and kinetic energy of turbulence; wakes, jets; wall-bounded flows; spectrum of turbulence.

**Topic 4: Multiscale Flow and Transport Phenomena.** Fundamentals of flow and transport phenomena in multiscale systems, including momentum, energy, and mass transport phenomena at the microscale; surface tension (capillarity); electrokinetics; micro-scale transport in porous media; multi-phase flow; rheology; and complex fluids.

**Topic 5: Applications of Incompressible Flow.** Dynamics of vorticity, inviscid flow; boundary layer theory and computational techniques, linear stability theory for parallel flow, flow at moderate Reynolds number.

### **M E 381Q. Thermodynamics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and Mechanical Engineering 326 or the equivalent.

**Topic 1: Advanced Thermodynamics.** Development of macroscopic thermodynamics from basic physical relationships; introduction to the thermodynamics of mixtures.

**Topic 4: Molecular Gas Dynamics.** Same as Aerospace Engineering 382R (Topic 6). Kinetic theory, chemical thermodynamics, statistical mechanics. Applications: equilibrium gas properties, chemical kinetics, interaction of matter with radiation, rarefied gas dynamics. Additional prerequisite: Consent of instructor

### **M E 381R. Heat Transfer and Rate Processes.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and Mechanical Engineering 339 or the equivalent.

**Topic 1: Advanced Conductive Heat Transfer.** Modeling approaches for composite systems; phase change in conduction-dominant heat transfer systems; analysis of complex source terms in conduction systems; conduction physics at material interfaces; coupled thermo-mechanical response in conduction systems; and solution techniques for multidimensional, unsteady conduction phenomena.

**Topic 2: Advanced Convective Heat and Mass Transfer.** Fundamental study of momentum, energy, and mass transport in convective systems in laminar and turbulent regimes, and several flow configurations.

**Topic 3: Radiation Heat Transfer.** Thermal radiation, blackbody properties, surface properties, radiant exchange, absorbing and emitting media, combined modes.

**Topic 4: Fundamentals of Heat and Mass Transfer.** Fundamentals of conduction, convective heat transfer, diffusive and convective mass transfer, thermal radiative exchange.

**Topic 5: Radiation in Participating Media.** Methods for treating thermal radiation in absorbing, transmitting, and scattering media.

**Topic 6: Multiphase Flow and Heat Transfer.** Heat, mass, and momentum transfer in multi-phase flow systems: flows with particles, drops and bubbles, boiling, condensation, and absorption.

**Topic 7: Nanoscale Energy Transport and Conversion.** Nanoscale transport phenomena and energy conversion processes. Parallel theoretical treatment of transport and conversion processes of electrons, phonons, photons, and molecules in various applications including photovoltaic and thermoelectric energy conversions, microelectronics, nanomaterials, and laser materials processing.

### **M E 382N. Computational Fluid Dynamics.**

Numerical analysis applied to fluid flow and heat transfer problems. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Introduction to Computational Fluid Dynamics.** Applied numerical analysis, including solution of linear algebraic equations and ordinary and partial differential equations; modeling of physical processes, including fluid flow and heat and mass transfer; use of general-purpose computer codes, including commercial computational fluid dynamics software. Additional prerequisite: Mechanical Engineering 339 or the equivalent.

**Topic 2: Computational Methods for Thermal Fluid Systems.** Introduction to the use of computational tools in the analysis of thermal-fluid systems, with particular emphasis on verification of results and error analysis. Included are interpolation, differentiation, quadrature, solution of linear and non-linear equations, optimization, differential equations and statistics. Additional prerequisite: Mathematics 427K or the equivalent.

### **M E 382P. Topics in Experimental Thermal/Fluid Systems.**

Use of modern experimental techniques and instrumentation in the thermal/fluid sciences. Two lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Advanced Experimental Methods for Thermal/Fluid Systems.** Design of experiments; fundamentals of electronic signal processing and optics; advanced experimental techniques, including flow measurements with laser-Doppler velocimetry, particle image velocimetry, and hot-wire anemometry; and thermal measurements with infrared cameras and thermocouples.

**Topic 2: Optics and Lasers.** Fundamentals of geometric and physical optics; interaction of light with matter; spectroscopy; and laser and electro-optics applications.

### **M E 382Q. Design of Thermal and Fluid Systems.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and Mechanical Engineering 339 or the equivalent.

**Topic 2: Solar Energy System Design.** Solar radiation, solar collectors, storage, and system analysis and design. Application to both thermal and photovoltaic systems.

**Topic 3: Advanced Thermo-Fluid Systems.** Project-based course addressing the design and analysis of systems in which thermal and fluid processes are central to function and performance. Advanced topics including transient system analysis, multicomponent nonreacting and reacting gas mixtures, phase change phenomena, and design principles based on entropy generation minimization are covered in the context of specific thermal-fluid applications.

**Topic 4: Energy Technology and Policy.** Multidisciplinary overview of energy technologies, fuels, environmental impacts, and public policies. Quantitative engineering analysis in energy, including the differences among fuels and energy technologies, the electricity sector, liquid fuels, conventional fuels, renewable fuels, impacts on

the environment, basics of atmospheric chemistry, and water use for power plant cooling. Energy policy and the societal aspects of energy, such as culture, economics, war, and international affairs, are covered.

### **M E 382R. Topics in Combustion.**

Fundamentals of combustion science, technology, and engineering. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Fundamentals of Combustion.** Combustion phenomena are examined from a fundamental perspective. Topics include equilibrium phenomena, chemical kinetics, explosions, detonations, and premixed and diffusion flames. Additional prerequisite: Knowledge of computer programming or the use of public domain codes.

**Topic 2: Chemical Kinetics.** The theory of combustion chemistry. Issues include physics of molecular interactions, the explosion peninsula, elementary reaction schemes, reduced reaction schemes, and global chemistry.

**Topic 5: Advanced Combustion.** Presentation and analysis of multi-component and reacting conservation equations; examination of the theory of laminar flames (premixed and nonpremixed) using asymptotic methods; detailing of ignition and extinction phenomena; discussion of flame response to transport and flow modifications; and approaches to analyzing turbulent premixed and nonpremixed flames.

**Topic 6: Combustion Engine Processes.** Principles of internal combustion engines, fuels, carburetion, combustion, exhaust emissions, knock, fuel injection, and factors affecting performance.

### **M E 382T. Fire Science.**

Analysis of dynamics and consequences of fire in structures. Topics include combustion thermochemistry, premixed and diffusion flames, fluid mechanics of fire, human tenability in burning structures, computer modeling of fires. Three lecture hours a week for one semester. Mechanical Engineering 382R (Topic: Fire Science) and 382T may not both be counted. Prerequisite: Graduate standing, and Mechanical Engineering 326, 330, and 339, or their equivalents.

### **M E 383M. Heat Transfer in Industrial Systems.**

Restricted to Option III Mechanical Engineering Master's degree students. Provides understanding of heat transfer physics and the tools to analyze a wide range of industrially relevant heat transfer problems. Analyzes heat transfer systems associated with a diversity of industrial applications, as well as how to use order of magnitude analysis to simplify complex problems and solution techniques for the three modes of heat transfer. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **M E 383Q. Analysis of Mechanical Systems.**

Detailed studies in the characteristics of mechanical systems. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Vibrations.** Formulation of discrete and continuous models for mechanical systems in vibration; modal analysis; analytical solution methods for constant property linear systems; numerical solution methods.

**Topic 2: Dynamics of Mechanical Systems.** Advanced dynamics, including Newton-Euler, Lagrange, and Hamilton's principles; gyroscopic effects in mechanical systems; analysis of stability of systems; continuous bodies; introduction to Hamilton-Jacobi.

**Topic 4: Modeling of Physical Systems.** Development of models for mechanical, electrical, fluid, thermal, and chemical systems; circuit techniques; bond graphs; energy and variational methods; hardware examples.

**Topic 5: Wave Propagation.** Fundamentals of wave propagation; transverse waves on strings and membranes; compressional, torsional, and flexural waves in rods and plates; longitudinal, shear, and surface waves in elastic media; tube waves; and water waves.

**Topic 6: Fourier and Spectral Analysis in Dynamic Systems.** Fourier transformations (series, integrals, fast Fourier transforms) and their relationships. Sampling, aliasing, convolution, correlation, leakage, windowing, power spectra, frequency response functions, and coherence functions in one-dimensional digital signal processing. Cepstrum analysis, Hilbert transforms. Experimental techniques and applications include modal analysis, mechanical signature analysis, and path identification. Additional prerequisite: Consent of instructor.

**Topic 8: Digital Signal Processing.** Sampling and quantizing processes; analog/digital and digital/analog conversion; digital Fourier analysis, including fast Fourier transform; z transform; design of finite impulse response and infinite impulse response digital filters.

**Topic 9: Applied Intelligence for Engineers.** Fundamental concepts of artificial neural systems; architecture, paradigms, topology, and learning algorithms. Introduction to the most popular networks and to their selection for engineering applications.

**Topic 10: Modeling and Simulations of Multienergy Systems.** Methods for modeling and simulation of multienergy systems. Detailed study of applications in electromechanical systems, fluid power, chemical and biological processes, optimal control, and other areas of interest to the class.

### **M E 383S. Lubrication, Wear, and Bearing Technology.**

Theory of friction and wear; design of bearing systems, including hydrodynamic, rheodynamic, and direct contact devices. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Friction and Wear of Materials.** Theories of friction, theories of wear (adhesion, delamination), pitting, spalling, fretting, and galvanic corrosion.

### **M E 384E. Electromechanics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **M E 384M. Fluid Mechanics in Industrial Processes.**

Restricted to Option III Mechanical Engineering Master's degree students. Offers practicing engineers and technology managers a comprehensive treatment of various fluid mechanics topics. Explores fluid flow and related phenomena in multiple application spaces. Benefit the design and analyses of various fluid-based systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the Executive ME program.

### **M E 384N. Acoustics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Acoustics I.** Same as Electrical and Computer Engineering 384N (Topic 1). Plane waves in fluids; transient and steady-state reflection and transmission; lumped elements; refraction; strings, membranes, and rooms; horns; ray acoustics; absorption and dispersion. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 1), Electrical Engineering 384N (Topic 1), Mechanical Engineering 384N (Topic 1).

**Topic 2: Acoustics II.** Same as Electrical and Computer Engineering 384N (Topic 2). Spherical and cylindrical waves, radiation and scattering, multipole expansions, Green's functions, waveguides, sound beams, Fourier acoustics, Kirchhoff theory of diffraction, and

arrays. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 2), Electrical Engineering 384N (Topic 2), Mechanical Engineering 384N (Topic 2).

**Topic 3: Electromechanical Transducers.** Same as Electrical and Computer Engineering 384N (Topic 3). Modeling, analysis, and design of transducers for reception and transmission of acoustic and vibration signals; dynamics of coupled electrical, mechanical, and acoustical systems; and the effects of transducer characteristics on fidelity and efficiency of transduction. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 3), Electrical Engineering 384N (Topic 3), Mechanical Engineering 384N (Topic 3).

**Topic 4: Nonlinear Acoustics.** Same as Electrical and Computer Engineering 384N (Topic 4). Waveform distortion and shock formation, harmonic generation and spectral interactions, effects of absorption and dispersion, parametric arrays, Rankine-Hugoniot relations, weak shock theory, numerical modeling, radiation pressure, and acoustic streaming. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 4), Electrical Engineering 384N (Topic 4), Mechanical Engineering 384N (Topic 4).

**Topic 5: Underwater Acoustics.** Same as Electrical and Computer Engineering 384N (Topic 5). Acoustic properties of the ocean; acoustic propagation, reflection, reverberation, scattering and target strength; ocean noise; introduction to array and signal processing; basics of sonar design. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 5), Electrical Engineering 384N (Topic 5), Mechanical Engineering 384N (Topic 5).

**Topic 6: Architectural Acoustics.** Same as Electrical and Computer Engineering 384N (Topic 6). Human perception of sound, principles of room acoustics, sound-absorptive materials, transmission between rooms, and acoustical design of enclosed spaces. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 6), Electrical Engineering 384N (Topic 6), Mechanical Engineering 384N (Topic 6).

**Topic 7: Ultrasonics.** Same as Electrical and Computer Engineering 384N (Topic 7). Acoustic wave propagation in fluids, elastic solids, and tissue; transducers, arrays, and beamforming; nondestructive evaluation; and acoustical imaging. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 7), Electrical Engineering 384N (Topic 7), Mechanical Engineering 384N (Topic 7).

**Topic 8: Wave Phenomena.** Same as Electrical and Computer Engineering 384N (Topic 8). Fourier acoustics and angular spectra; nearfield acoustical holography; Fraunhofer, Fresnel, and parabolic approximations; sound beams; Green's functions; Born approximation; propagation and scattering in moving, periodic, and random media. Only one of the following may be counted: Electrical and Computer Engineering 384N (Topic 8), Electrical Engineering 384N (Topic 8), Mechanical Engineering 384N (Topic 8), 397 (Topic: Wave Phenomena).

### **M E 384Q. Design of Control Systems.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and Mechanical Engineering 364L or the equivalent.

**Topic 1: Introduction to Modern Control.** State variable methods, eigenvalues, and response modes; controllability, observability, and stability; calculus of variations; optimal control; Pontryagin maximum principle; control of regulator and tracking servomechanisms; Hamilton-Jacobi, dynamic programming; deterministic observers, Kalman filter; discrete and continuous time.

**Topic 2: Nonlinear Control Systems.** State space formulation; stability criteria; Liapunov functions; describing functions; signal stabilization; Popov and circle criteria for design.

**Topic 3: Time-Series Modeling, Analysis, and Control.** Same as Operations Research and Industrial Engineering 390R (Topic 3: Time-Series Modeling, Analysis, and Control). Methods for analytical modeling, analysis, prediction, and control of linear, stationary time series. Includes examples of advanced research in nonstationary time-series modeling and applications in manufacturing, financial engineering, geosciences, and other areas. Students complete a project on a topic of their choice. Additional prerequisite: Graduate standing, and Mechanical Engineering 364L or the equivalent, an undergraduate calculus-based course in probability and statistics or consent of instructor.

**Topic 7: Stochastic Systems, Estimation, and Control.** Probability and random variables; filtering theory; stochastic calculus; stochastic control; engineering applications; linear and nonlinear systems; spectral techniques.

### **M E 384R. Robotics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Robotics and Automation.** Component technologies for precision machines based on dynamic modeling and motion programming: cams, linkages, planar manipulators.

**Topic 2: Design of Smart Mechanisms.** Design of reprogrammable multiple-degree-of-freedom architectures. The course addresses various mechanical configurations and stresses the integrated design approach to sensing/actuation/control architecture and control software. Includes design project.

**Topic 3: Advanced Dynamics of Robotic Systems.** Treatment in depth of the dynamics of robotic systems. Discussion of modeling, analysis, and control of conventional serial robots, in-parallel manipulators, dual arms, and legged locomotion systems.

**Topic 4: Geometry of Mechanisms and Robots.** Advanced topics in theoretical kinematics geometry: applications of screw system theory to the study of motion and force fields in spatial mechanisms and robotic systems; analytical and numerical schemes associated with kinematics geometry.

**Topic 5: Planar Mechanism Synthesis.** Design of planar mechanisms for applications that require rigid body guidance, function generation, and path generation. Graphical and analytical techniques. Computer-aided design projects.

### **M E 385J. Topics in Biomedical Engineering.**

Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in engineering and consent of instructor.

**Topic 1: Cell and Tissue Anatomy and Physiology for Engineers.** An overview of cellular biology, including functional cellular anatomy, DNA replication and the cell cycle, protein synthesis, membrane structure and function, energy metabolism, cellular homeostasis, and cell repair and death; and functional anatomy and physiology of the basic tissues.

**Topic 2: Organ System Anatomy, Physiology, and Pathology for Engineers.** The functional anatomy and physiology of the major human organ systems; representative pathologic disorders associated with these organs. An overview of general pathologic processes, with emphasis on the influences of normal and abnormal organ anatomy, physiology, and disease on the definition and solution of biomedical engineering problems. Two lecture hours and one three-hour laboratory a week for one semester. Additional prerequisite: Mechanical Engineering 385J (Topic 1) or the equivalent.

**Topic 3: Bioelectric Phenomena.** Examines the physiological bases of bioelectricity and the techniques required to record bioelectric phenomena both intracellularly and extracellularly; the representation

of bioelectric activity by equivalent dipoles and the volume conductor fields produced.

**Topic 5: Cardiovascular Dynamics.** Anatomy, physiology, pathophysiology, and dynamics of the cardiovascular system, with emphasis on the design and application of electrical and mechanical devices for cardiac intervention.

**Topic 9: Laser-Tissue Interaction: Thermal.** The thermal response of random media in interaction with laser irradiation. Calculation of the rate of heat production caused by direct absorption of the laser light, thermal damage, and ablation.

**Topic 10: Biomedical Application of Transport Phenomena.** Investigates radioisotopic methods for biological transport, including theory and experiments. Investigates artificial organ systems with clinical laboratory experiments to augment theory presented in lectures.

**Topic 11: Biomedical Engineering Hospital Interfaces.** Students gain firsthand knowledge of the instrumentation, procedures, and organization of a modern hospital. Class sessions are held in the different clinical services and laboratories of the hospital.

**Topic 12: Biomedical Heat Transfer.** Heat transfer in biological tissue; determination of thermodynamic and transport properties of tissue; thermal effects of blood perfusion; cryobiology; numerical modeling methods; clinical applications. Additional prerequisite: Mechanical Engineering 339, Chemical Engineering 319 (or 353), or the equivalent; consent of instructor.

**Topic 13: Molecular Recognition in Biology and Biotechnology.**

**Topic 15: Biosignal Analysis.** Theory and classification of biological signals such as EEG, EKG, and EMG. Data acquisition and analysis procedures for biological signals, including computer applications.

**Topic 16: Laser-Tissue Interaction: Optical.** The optical behavior of random media such as tissue in interaction with laser irradiation. Approximate transport equation methods to predict the absorption and scattering parameters of laser light inside tissue. Port-wine stain treatment; cancer treatment by photochemotherapy; and cardiovascular applications.

**Topic 17: Biomedical Instrumentation II: Real-Time Computer-Based Systems.** Design, testing, patient safety, electrical noise, biomedical measurement transducers, therapeutics, instrumentation electronics, and microcomputer interfaces. Several case studies are presented. Four structured laboratories and an individual project laboratory.

**Topic 18: Biomedical Image Processing.** Physical principles and signal processing techniques used in thermographic, ultrasonic, and radiographic imaging, including image reconstruction from projections such as CT scanning, MRI, and millimeter wave determination of temperature profiles. Additional prerequisite: Electrical Engineering 371R.

**Topic 20: Network Thermodynamics in Biophysics.** Modeling and simulation methods for nonlinear biological processes, including coupling across multienergy domains; practical implementation by bond graph techniques. Additional prerequisite: Mechanical Engineering 344 or consent of instructor.

**Topic 23: Optical Spectroscopy.** Measurement and interpretation of spectra: steady-state and time-resolved absorption, fluorescence, phosphorescence, and Raman spectroscopy in the ultraviolet, visible, and infrared portions of the spectrum.

**Topic 24: Rehabilitation Engineering.** Same as Biomedical Engineering 384J (Topic 8). Explores use of robotic devices in physical therapy for neuromuscular injury. Clinicians lecture each week on a specific malady, followed by critical review of the literature of that malady from the perspective of rehabilitation engineering. Shadows therapists and develops a prototype of a device for therapy, assistance or diagnosis of patients, or conducts an experiment to test a hypothesis in the field using a device. Three lecture hours a week for one semester. Only one of the following may be counted: Biomedical Engineering 381 J (Topic:

Rehabilitation Engineering), 384J (Topic 8), Mechanical Engineering 385J (Topic 24), 397 (Topic: Rehabilitation Engineering).

**Topic 26: Therapeutic Heating.** Engineering aspects of electromagnetic fields that have therapeutic applications: diathermy (short wave, microwave, and ultrasound), electrosurgery (thermal damage processes), stimulation of excitable tissue, and electrical safety.

**Topic 27: The Biotechnology Revolution and Engineering Ethics.** The history and status of genetic engineering; potential applications in medicine, agriculture, and industry; ethical and social issues surrounding the engineering of biological organisms; ethics in engineering practice in physical and biological realms.

**Topic 28: Noninvasive Optical Tomography.** Basic principles of optical tomographic imaging of biological materials for diagnostic or therapeutic applications. Optical-based tomographic imaging techniques including photothermal, photoacoustic, and coherent methodologies.

**Topic 29: Transport Processes in Biological Systems.** Introduction to engineering analysis of transport phenomena in living systems, including fluid flow, heat transfer, pharmacokinetics, and membrane fluxes with clinical applications.

**Topic 30: Introduction to Biomechanics.** Modeling and simulation of human movement; neuromuscular control; computer applications; introduction to experimental techniques. Three lecture hours and one laboratory hour a week for one semester.

**Topic 31: Biomedical Instrumentation I.** Application of electrical engineering techniques to analysis and instrumentation in biological sciences: pressure, flow, temperature measurement; bioelectrical signals; pacemakers; ultrasonics; electrical safety; electrotherapeutics.

**Topic 32: Projects in Biomedical Engineering.** An in-depth examination of selected topics, such as optical and thermal properties of laser interaction with tissue; measurement of perfusion in the microvascular system; diagnostic imaging; interaction of living systems with electromagnetic fields; robotic surgical tools; ophthalmic instrumentation; noninvasive cardiovascular measurements. Three lecture hours and six laboratory hours a week for one semester. Additional prerequisite: Mechanical Engineering 385J (Topic 31).

**Topic 33: Neurophysiology/Prosthesis Design.** The structure and function of the human brain. Discussion of selected neurological diseases in conjunction with normal neurophysiology. Study of neuroprosthesis treatments and design philosophy, functional neural stimulation, and functional muscular stimulation.

**Topic 34: Biopolymers and Drug/Gene Delivery.** Introduction to different classes of biopolymers. Biodegradability and biocompatibility. Interaction of cells and tissues with polymers and polymeric implants; immunology of biomaterials. Applications of polymers in medicine and biology. Gene therapy and generic immunization. The use of biopolymers and drug/gene delivery in organ regeneration and tissue engineering.

**Topic 35: Rehabilitation Robotics and Engineering.** Explores the use of robotic devices to support the strength of patients and therapists, quantitatively diagnose impairment, and augment function. Critically review the literature in rehabilitation engineering from both robotics and scientific perspectives. Students also shadow therapists and develop a prototype of a device for therapy, assistance or diagnosis of patients, or conduct an experiment to test a hypothesis in the field using a device.

**Topic 36: Modeling and Simulation of Human Movement.** Examine a synthesis of neuromusculoskeletal properties and interactions with the environment to construct detailed musculoskeletal models and computer simulations that allow for the investigation of various aspects of human movement. Explore a review of rigid-body dynamics, inverse and forward dynamic analyses, muscle

physiology and models, musculoskeletal anthropometrics, muscle induced acceleration and segment power analyses, contact models, optimal control, muscle force distribution solutions, and simulation applications. Mechanical Engineering 385J (Topic 22) and 385J (Topic 36) may not both be counted. Additional prerequisite: An undergraduate dynamics course, an introductory biomechanics of human movement course, and a computer programming course.

### **M E 385M. Applied Thermodynamics.**

Restricted to Option III Mechanical Engineering Master's degree students. Addresses the design and analysis of systems in which thermodynamic processes are central to function and performance. Reviews fundamental thermodynamic concepts, such as enthalpy, entropy, exergy, 1st & 2nd law, psychrometrics and combustion. Discusses practical topics, such as system-level thermodynamic processes for automotive engines, power plants, renewable energy production and HVAC systems. Gives real-world examples to cultivate skills of solving problems with basic knowledge of thermodynamics. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the Executive ME program.

### **M E 386M. Modeling, Simulation, and Control of Physical Systems.**

Restricted to Option III Mechanical Engineering Master's degree students. Reviews principles used to understand and model physical systems and introduces methods for building mathematical and simulation models of engineering systems. Emphasis on the development of dynamic system models for predicting the behavior or performance of systems, models for efficient data reduction or test development, models for design, and the role of models in control development. Bond graph methods are introduced especially for analysis of systems having combinations of mechanical, electrical, magnetic, electromechanical, fluid, and thermodynamic effects. Covers the role and application of physical models in development and design of feedback controllers and estimation methods. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the Executive ME program.

### **M E 386P. Materials Science: Fundamentals.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Introduction to Phase Transformations.** Same as Materials Science and Engineering 386P (Topic 1). Basics of crystal structures and phase diagrams; diffusion; solidification; solid-state phase transformations. Mechanical Engineering 386P (Topic 1) and Materials Science and Engineering 386P (Topic 1) may not both be counted.

**Topic 2: Mechanical Behavior of Materials.** Same as Materials Science and Engineering 386P (Topic 2). Elastic deformation; viscoelasticity; yielding, plastic flow, plastic instability; strengthening mechanisms; fracture, fatigue, creep; significance of mechanical properties tests. Microstructural mechanisms and macroscopic behavior of metals, polymers, ceramics, and composites. Mechanical Engineering 386P (Topic 2) and Materials Science and Engineering 386P (Topic 2) may not both be counted.

**Topic 3: Introduction to Thermodynamics of Materials.** Same as Materials Science and Engineering 386P (Topic 3). Thermodynamic properties; reactions and chemical equilibrium in gases; solutions, phase equilibria, phase diagrams, reaction equilibria; surfaces and interfaces; point defects in crystals. Mechanical Engineering 386P (Topic 3) and Materials Science and Engineering 386P (Topic 3) may not both be counted.

**Topic 4: Introduction to Solid-State Properties of Materials.** Same as Electrical and Computer Engineering 396V (Topic 5) and Materials Science and Engineering 386P (Topic 4). Introduction to the electronic, magnetic, and optical properties of materials. Solid-state properties of metals, semiconductors, and ceramics; fundamental concepts needed for the description of these properties, using an introductory-level description of the electronic structure of solids. Only one of the following may be counted: Electrical Engineering 396V (Topic 5), Electrical and Computer Engineering 396V (Topic 5), Mechanical Engineering 386P (Topic 4), Materials Science and Engineering 386P (Topic 4). Additional prerequisite: Graduate standing and consent of instructor.

**Topic 5: Structure of Materials.** Same as Materials Science and Engineering 386P (Topic 5). Essential crystallography of lattices and structures; symmetry; elements of diffraction and reciprocal lattices; point, line, and surface defects in crystals; crystalline interfaces; noncrystalline materials; polymers; glasses. Mechanical Engineering 386P (Topic 5) and Materials Science and Engineering 386P (Topic 5) may not both be counted.

**Topic 6: Kinetic Processes in Materials.** Review of irreversible thermodynamics and rate of entropy production to define the equilibrium state of a system; derivation of mathematical expressions to describe relaxation from a constrained state to equilibrium; diffusional processes in materials; calculation of diffusion coefficients from solid-state properties; dislocations and interfaces; kinetics of phase transformations.

#### **M E 386Q. Materials Science: Structure and Properties.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Theory of Materials.** Periodic behavior and the periodic table; historical approach to the principles of crystal structure; complex alloy phases; some aspects of phase stability.

**Topic 2: Phase Diagrams.** Phase equilibria in materials systems; systematic treatment of unary, binary, and ternary phase diagrams.

**Topic 3: Fracture of Structural Materials.** Microscopic and macroscopic aspects of ductile and brittle fracture; fracture mechanisms and fracture prevention.

**Topic 4: Physical Metallurgy of Steels.** The iron-carbon system; transformations and structures of steels; properties of pearlite, bainite, and martensite; tempering; hardenability and the effect of alloying elements.

**Topic 7: Composite Materials.** The theory of structural composite materials, their physical and mechanical properties; processing associated with metal-ceramic-polymer composites. Additional prerequisite: Mechanical Engineering 260K (or 360K) or the equivalent, Mechanical Engineering 378K or the equivalent, or consent of instructor.

**Topic 9: Crystalline and Composite Anisotropy.** Mathematical analysis of anisotropic materials, including single crystals, laminate composites, and deformation-hardened metals. Topics include thermal and electrical conductivity, diffusivity, thermal expansion, elasticity, and yielding.

**Topic 10: High-Temperature Materials.** Theory and practice in use of materials for high-temperature structural applications; case-study considerations of actual problems and requirements; interactive process-microstructure-property relationships in materials development and applications of superalloys, intermetallics, composites, and ceramics; prospective trends.

**Topic 11: Electroceramics.** Bonding; crystal structures; defects; phase diagrams; glass ceramics; electrical, dielectric, magnetic, and optical ceramics.

**Topic 14: Electrochemical Energy Materials.** Electrochemical cells; principles of electrochemical power sources; materials for rechargeable and nonrechargeable batteries, fuel cells, and electrochemical capacitors.

**Topic 16: Application Perspectives of Nanotechnology.** Subjects include standard top-down and the state-of-the-art bottom-up nanofabrication, manipulation, and assembling techniques, commonly used characterization instruments; applications of nanomaterials in biochemical sensing based on electric, optical, magnetic and mechanical effects; flexible nanoelectronics; nanomanipulation and nanorobotics, applications of nanomaterials in Nanoelectromechanical System (NEMS) devices, bioMEMS, and microfluidics. Emphasis on oral and written scientific communication skills. Mechanical Engineering 386Q (Topic: Application Perspectives of Nanotechnology) and 386Q (Topic 16) may not both be counted.

Additional prerequisite: Graduate standing and consent of instructor.

**Topic 17: Failure Analysis.** Introduction to methodology of analyzing failures of engineering parts and devices. Explores a broad range of analysis, but the focus is on understanding fractography and relating this back to material and mechanics relevant to failure to determine the likely root cause(s). Lectures are primarily based on case studies and are supplemented by two hands-on class projects, one performed individually and the other larger project performed as a team project. Three lecture hours a week for one semester. Mechanical Engineering 386Q.17 and 397 (Topic: Failure Analysis) may not both be counted. Additional prerequisite: Graduate standing.

**Topic 23: Structural Ceramics.** Explore microstructure-mechanical property relationships in ceramics; principles of fracture mechanics, and static and dynamic fracture; static and cyclic fatigue; high-temperature behavior; strengthening and toughening mechanisms in monolithic ceramics; and particulate and fibrous ceramic composites. Mechanical Engineering 386Q (Topic 13) and 386Q (Topic 23) may not both be counted.

#### **M E 386R. Materials Science: Physical and Electronic Properties.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Localized versus Itinerant Electrons in Solids.** Same as Electrical and Computer Engineering 396K (Topic 9). Description of electrons, from free atoms to crystals; band theory contrasted with crystal-field theory; evolution of electronic properties on passing from magnetic insulators to normal metals, from ionic to covalent solids, from single-valent compounds to mixed-valent systems; electron-lattice interactions and phase transitions; many examples. Only one of the following may be counted: Electrical and Computer Engineering 396K (Topic 9), Electrical Engineering 396K (Topic 9), Mechanical Engineering 386R (Topic 1). Additional prerequisite: A semester of quantum mechanics and a semester of solid-state science or technology.

**Topic 2: Localized-Electron Phenomena.** Same as Electrical and Computer Engineering 396K (Topic 17). Analysis of the variation in physical properties versus chemical composition of several groups of isostructural transition-metal compounds. Only one of the following may be counted: Electrical and Computer Engineering 396K (Topic 17), Electrical Engineering 396K (Topic 17), Mechanical Engineering 386R (Topic 2). Additional prerequisite: A semester of solid-state science and/or quantum mechanics.

**Topic 3: Transport Properties of Transition-Metal Oxides.** Electronic and ionic transport in transition-metal oxides as they relate to battery cathodes, solid oxide cells, spin electronics, thermistors, and high-temperature superconductors.

### **M E 386S. Materials Science: Microelectronics and Thin Films.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Thin Films and Interfaces.** Application of thin films and interfaces in microelectronics; basic properties, deposition techniques, microstructures and defects, diffusion characteristics; materials reaction in thin films and at interfaces.

**Topic 2: Metallization and Packaging.** Technology requirements and trends, impact of device scaling, multilayered interconnect structures, Schottky and ohmic contacts, contact reactions, silicide properties and applications, electromigration, thermal/mechanical properties, reliability. Additional prerequisite: Mechanical Engineering 386S (Topic 1).

### **M E 386T. Materials Science: The Design of Technical Materials.**

The process of designing a material for a specific engineering function as illustrated for various materials. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Ionic Conductors.** Same as Electrical and Computer Engineering 396K (Topic 10). Only one of the following may be counted: Mechanical Engineering 386T (Topic 1), Electrical Engineering 396K (Topic 10), Electrical and Computer Engineering 396K (Topic 10).

**Topic 2: High-Temperature Superconductors.** Same as Electrical and Computer Engineering 396K (Topic 11). Only one of the following may be counted: Mechanical Engineering 386T (Topic 2), Electrical Engineering 396K (Topic 11), Electrical and Computer Engineering 396K (Topic 11).

**Topic 3: Catalytic Electrodes.** Same as Electrical and Computer Engineering 396K (Topic 12). Only one of the following may be counted: Mechanical Engineering 386T (Topic 3), Electrical and Computer Engineering 396K (Topic 12), Electrical Engineering 396K (Topic 12).

**Topic 4: Magnetic Materials.** Same as Electrical and Computer Engineering 396K (Topic 13). Only one of the following may be counted: Electrical and Computer Engineering 396K (Topic 13), Electrical Engineering 396K (Topic 13), Mechanical Engineering 386T (Topic 4).

### **M E 387M. Applied Dynamics and Feedback Control.**

Restricted to Option III Mechanical Engineering Master's degree students. Provides advanced tools for describing and controlling the motion of dynamical systems. Studies how to apply Newton's Second Law as well as Lagrange's equations to find equations of motion. Emphasis on rigid body dynamics as well as motion constraints arising in complex systems. Examines fundamental concepts in both the time and frequency domains to develop feedback controllers and thus advance from open loop simulation of dynamic systems to closed loop control. Introduces common control strategies and tools for designing and testing control systems. Uses MATLAB extensively throughout the course, and emphasizes applications to realistic systems, simulations and numerical solutions. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the Executive ME program.

### **M E 387Q. Materials Science: Thermodynamics and Kinetics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Diffusion in Solids.** Atomic mechanisms and phenomenological basis for transport by diffusion.

**Topic 2: Kinetics and Phase Transformations.** Nucleation and growth, spinodal decomposition, transformations in alloy systems.

**Topic 3: Solidification.** Liquid to solid transformations in pure materials, alloys and eutectics; applications such as zone refining, composites, and castings.

**Topic 4: Corrosion.** Electrode kinetics and the theory of polarization, passivity, galvanic coupling, and high temperature oxidation.

**Topic 5: Thermodynamics of Materials.** First and second laws, fugacity, activity, chemical equilibrium, phase diagrams, and introductory statistical concepts.

**Topic 6: Statistical Thermodynamics of Materials.** Quantum mechanics applied to partition functions of condensed and gaseous phases; chemical equilibria; phase transitions; and lattice statistics including the Ising model.

**Topic 7: Group Theory and Phase Transformations.** Symmetry principles and the associated mathematics applied to the description of condensed phases and their transformations.

### **M E 387R. Materials Science: Experimental Techniques.**

Three lecture hours a week for one semester. Some topics may require additional laboratory hours; these are identified in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Nondestructive Testing.** Acoustic emission, ultrasonic, eddy current, dye penetrant, and magnetic methods.

**Topic 3: Electron Diffraction and Microscopy.** Transmission electron microscopy, kinematic electron diffraction theory, reciprocal lattice, defect analyses, scanning electron microscopy.

**Topic 4: Advanced Electron Microscopy Theory and Techniques.** Scanning transmission electron microscopy, microanalysis techniques, dynamical diffraction theory, convergent beam diffraction.

**Topic 5: Materials Characterization Techniques.** Classification and selection of characterization techniques: principles and applications of diffraction, spectroscopic, quantitative chemical analysis, thermal analysis, and transport and magnetic measurement techniques.

**Topic 6: High-Resolution Transmission Electron Microscopy Techniques.** Theory and practice of high-resolution phase contrast electron microscopy. Computer simulation of images and diffraction patterns.

**Topic 7: Scanning Electron Microscopy.** Theory and practice of scanning electron microscopy; image formation, elemental analysis, sample preparation, and electron-sample interactions. Three lecture hours and two laboratory hours a week for one semester.

**Topic 8: Practical Electron Microscopy.** Principles, operation, and techniques of transmission electron microscopy; acquiring and interpreting imaging, diffraction, and spectroscopy information; and hands-on experience with a transmission electron microscope. Three lecture hours and three laboratory hours a week for one semester.

### **M E 387S. Materials Processing.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Processing of Materials.** Principles, advantages, and problems of solid, liquid, and vapor materials processes; considerations of structural alloys, ceramics, engineering polymers, and composites.

**Topic 3: Powder Processing.** Synthesis of powders, powder characterization, powder stabilization, consolidation of powders, sintering, densification, and grain growth.

### **M E 388C. Nuclear Power Engineering.**

Fundamental principles of the design and analysis of nuclear systems; introduction to the physics of nuclear reactions, chain reactions, and nuclear energy generation; heat generation and conduction within nuclear systems; heat transfer and fluid flow in nuclear systems; the thermodynamics of nuclear power; the nuclear fuel cycle; and issues related to the materials aspect of reactor engineering. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **M E 388D. Nuclear Reactor Theory I.**

Principle concepts in the physics of nuclear systems, including radiation, radioactive decay, and the buildup and depletion of isotopes in nuclear systems; neutron-nucleus interactions and nuclear cross sections; transport or radiation using one-group and two-group diffusion theory; and concepts of criticality and time dependent reactors. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Mechanical Engineering 361E or the equivalent.

### **M E 388E. Nuclear Reactor Theory II.**

Neutron-nucleus interactions and nuclear cross section calculations; transport of radiation using neutron transport theory and multigroup diffusion theory; heterogeneous reactor calculations; the kinetics of nuclear systems; perturbation theory; and the nuclear fuel cycle. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Mechanical Engineering 361E or the equivalent.

### **M E 388F. Computational Methods in Radiation Transport.**

Transport equation, Monte Carlo method, energy and time discretization, discrete ordinates, integral methods, and even-parity methods. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **M E 388G. Nuclear Radiation Shielding.**

Radiation fields/sources; techniques in neutron and photon attenuation; transport description of radiation penetration. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **M E 388H. Nuclear Safety and Security.**

Same as Operations Research and Industrial Engineering 390R (Topic 15: Nuclear Safety and Security). Probabilistic risk assessment models and nuclear arms nonproliferation, including failure classifications; failure mode, effects, and criticality analysis (FMECA); fault and event trees; and reliability block diagrams. Discussion of specific areas from the Code of Federal Regulations. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 337G, 388H, Operations Research and Industrial Engineering 390R (Topic 15). Prerequisite: Graduate standing, and an undergraduate calculus-based course in probability and statistics or consent of instructor.

### **M E 388J. Neutron Interactions and Their Applications in Nuclear Science and Engineering.**

The fundamental principles of neutron interactions with matter and how these interactions are used in a variety of science and engineering research areas. Includes the history of neutron research, fundamental principles, dosimetry, depth profile, radiography, activation analysis, detection, homeland security, and scattering, with a significant emphasis placed on experimental design of these neutron techniques. Three lecture hours a week for one semester. Mechanical Engineering 388J and 397 (Topic: Neutron Interactions and Their Applications in Nuclear Science and Engineering) may not both be counted. Prerequisite: Graduate standing.

### **M E 388M. Mathematical Methods for Nuclear and Radiation Engineering.**

Fundamental mathematics used in graduate studies in nuclear and radiation engineering. Topics include statistics, experimental data,

propagation of error, detection limits, and differential and partial differential equations. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **M E 388N. Design of Nuclear Systems.**

Integration of fluid mechanics, heat transfer, thermomechanics, and thermodynamics with reactor theory for core design. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Mechanical Engineering 361E or the equivalent.

### **M E 388P. Applied Nuclear Physics.**

Properties of the nucleus and its structure; binding energy and nuclear stability, and the liquid drop model of the nucleus; the shell model of the nucleus; deuteron bound-state wave function and energy, n-p scattering cross section, transition probability per unit time, and barrier transmission probability; nuclear conservation laws; the energetics and general cross section behavior in nuclear reactions; interactions of charged particles, neutrons, and gamma rays with matter; and alpha, beta, and gamma decay. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **M E 388S. Modern Trends in Nuclear and Radiation Engineering.**

Facilitates presentations on research topics in nuclear and radiation engineering outside any research with techniques in proposal writing; or specialized laboratory courses. Three lecture hours a week for one semester. Mechanical Engineering 388S and 397 (Topic: Modern Trends in Nuclear and Radiation Engineering) may not both be counted. Prerequisite: Graduate standing.

### **M E 389C. Nuclear Environmental Protection.**

Ionizing radiation and its interactions with matter and living tissues; radioactive decay kinetics; external and internal dose measurement; transportation through the environment; managing radioactive waste streams; and safeguards. Three lecture hours a week for one semester. Mechanical Engineering 337F and 389C may not both be counted. Prerequisite: Graduate standing.

### **M E 389F. The Nuclear Fuel Cycle.**

A survey of the nuclear fuel cycle, including resource acquisition, fuel enrichment and fabrication, spent fuel reprocessing and repository disposal. Nuclear fuel management and reactor physics are addressed in the context of fuel burn-up calculations. Uses cross-disciplinary tools such as cost-benefit and environmental impact analyses. Includes fuel cycles currently in use, advanced fuel cycle concepts currently being presented in the technical literature, and a group project designed to research, analyze, and document the technical, economic, and/or environmental ramifications of one of these advanced fuel cycles. Three lecture hours a week for one semester. Mechanical Engineering 389F and 397 (Topic: The Nuclear Fuel Cycle) may not both be counted. Prerequisite: Graduate standing.

### **M E 389M. Materials Processing.**

Restricted to Option III Mechanical Engineering Master's degree students. Explores the principles, advantages, and problems of solid, liquid, and vapor materials processes. Studies the considerations of structural alloys, ceramics, engineering polymers, and composites. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the Executive ME program.

### **M E 389Q. Nuclear and Radiation Engineering: Design of Systems.**

Synthesis of engineering concepts, materials specifications, and economics in the design of nuclear systems. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

Prerequisite: Graduate standing, and Mechanical Engineering 361E or the equivalent.

### **M E 390. Vehicle System Dynamics and Controls.**

Fundamentals of ground vehicle dynamics, tire-road mechanics, vehicle control systems, vehicle stability, and simulation of vehicle systems. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 360, 379M (Topic: Vehicle System Dynamics and Controls), 390, 397 (Topic: Vehicle System Dynamics and Controls). Prerequisite: Graduate standing.

### **M E 390C. Cyber Vehicle Systems.**

Study of the engineering principles of autonomous mobile robots. Subjects include understanding the dynamics of vehicle systems, and the principles and practical implementation of sensing, actuation, and control. Emphasis will be given to providing practical laboratory study of these subjects using mobile robot platforms, and the use of the commercial software package LabVIEW for programming of real-time data acquisition and control targets. Simulation studies may also be conducted in LabVIEW and/or the Matlab environment; some proficiency in use of both of these software packages is expected. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 360, 379M (Topic: Cyber Vehicle Systems), 390C, 397 (Topic: Cyber Vehicle Systems). Prerequisite: Graduate standing.

### **M E 390F. Nuclear Analysis Techniques.**

Thermal and fast neutron activation, scintillation and solid-state detectors, beta and gamma spectrometry, coincidence techniques. Two lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **M E 390G. Nuclear Engineering Laboratory.**

Experiments using the TRIGA reactor and a subcritical assembly; measurement of reactor characteristics and operational parameters. Two lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **M E 390M. The Enterprise of Technology.**

Restricted to Option III Mechanical Engineering Master's degree students. Uses early stage technologies to create new and original commercialization plans which include the best first market, establishing technology features in that market, and estimated benefits and costs to deliver a future product to a customer. Includes in-person market research, a written semester journal, and engagement with multiple projects. Reviews later stages of technology entrepreneurship; includes forming a new company, building a business plan, building a team, getting funding, and scale up to manufacturing. Emphasis on gaining proficient knowledge on intellectual property protection and strategy, and the steps and processes necessary to the successful design and manufacture of a product or service. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the Executive ME program.

### **M E 390N. Health Physics Laboratory.**

The application of radiation and radiation protection instrumentation. Includes personnel monitoring; radiation detection systems; gamma-ray spectroscopy; determination of environmental radiation; counting statistics; and gamma and neutron shielding. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **M E 390T. Nuclear and Radiochemistry.**

Theory and application of nuclear and radiochemistry, including alpha, beta, and gamma ray processes; fission products; statistics; solvent

extraction; absorption and teaching techniques; various counting methods; and radiation protection. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **M E 391M. Introduction to Manufacturing Systems.**

Restricted to Option III Mechanical Engineering Master's degree students. With an emphasis on continuous flow manufacturing, provides the knowledge and skill set to analyze and design production systems to decrease manufacturing costs, decrease defects, and shorten delivery time by reducing process cycle times. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the Executive ME program.

### **M E 391R. Artificial Intelligence Programming for Engineers.**

Provides a working knowledge of LISP and compares it with PROLOG; use of the Texas Instruments Explorer, and artificial intelligence techniques applied to engineering problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **M E 392C. Design Optimization and Automation.**

Optimization in mechanical design, including monotonicity analysis, gradient-based constrained optimization, tree-searching, and stochastic approaches. Three lecture hours a week for one semester. Prerequisite: Graduate standing and proficiency in C or MATLAB.

### **M E 392G. Computer Graphics and Computer-Aided Design.**

Studies in computer graphics and its application to design. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Introduction to Computer Graphics.** Two- and three-dimensional transformations, projections, and the graphics pipeline; fundamental algorithms for wire frame and hidden surface image generation; interactive techniques, geometric modeling, and realistic rendering using a standard graphics library. Additional prerequisite: Proficiency in C or C++.

**Topic 2: Computer-Aided Geometric Design.** Introduction to techniques for representing geometry for computer-aided engineering design. Two- and three-dimensional curve formulations, techniques from algebraic and vector geometry, implicit versus parametric definitions; and free-form surface formulation and solid modeling. Additional prerequisite: Proficiency in C or C++.

**Topic 3: Advanced Computer-Aided Design Applications.** Hardware and software for computer-aided design systems. Display devices, multidimensional graphics, optimization, use of artificial intelligence.

**Topic 4: Advanced Topics in Computer-Aided Design.** Detailed execution of an independent computer-aided design project. Projects require significant development and emphasize application of techniques from computer-aided engineering and interactive computer graphics. Lectures deal with the subject matter of the projects. Additional prerequisite: Mechanical Engineering 352K, 392G (Topic 1), or 392G (Topic 2); and consent of instructor.

### **M E 392M. Advanced Mechanical Design.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Analytical Techniques in Mechanical Design.** Analytical techniques and some computational techniques for the advanced stress and strength analysis of machine components and mechanical structures.

**Topic 3: Advanced Design of Machine Elements.** Review of basic machine elements, properties, and stresses; fluid couplings and

torque converters; thermal stresses, relaxation, and beneficial residual stressing; shells and rotors; plasticity.

**Topic 6: Engineering Design Theory and Mathematical Techniques.**

Design history and philosophy. Survey of current research areas in design theory, methodology, and manufacturing. Tools for solving engineering system design and synthesis problems. Reverse engineering design project.

**Topic 7: Product Design, Development, and Prototyping.** Methodology and tools for the product development process. Functional designs based on real product needs. Product design project.

**M E 392Q. Manufacturing.**

Topics that cut across departmental concentrations (mechanical systems and design, metallurgy and materials engineering, operations research and industrial engineering), including design for manufacturing, manufacturing machines and manufacturing processing, and production systems. Three lecture hours a week for one semester; additional laboratory hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Introduction to Manufacturing Systems.** Analysis and design of production systems to decrease manufacturing costs, decrease defects, and shorten delivery time by reducing process cycle times. Emphasis is on continuous flow manufacturing. Additional prerequisite: A basic understanding of statistics.

**Topic 2: Computer Fundamentals for Manufacturing Systems.**

Computer graphics, computer-aided design, direct numerical control, relationship between computer-aided design and manufacturing.

**Topic 4: Automation and Integration of Manufacturing Systems.**

Integration of automated manufacturing components into a cohesive manufacturing system. Selection of automation strategy, communication and interaction between system components, economics and reliability of the resulting systems.

**Topic 5: Manufacturing Processing: Unit Processes.** Important unit processing operations in manufacturing: cutting, drilling, and grinding metals, ceramics, composites, and polymers. Deformation processes: forming and rolling. Laser machining.

**Topic 6: Mechatronics I.** Integrated use of mechanical, electrical, and computer systems for information processing and control of machines and devices. System modeling, electromechanics, sensors and actuators, basic electronics design, signal processing and conditioning, noise and its abatement, grounding and shielding, filters, and system interfacing techniques. Three lecture hours and two laboratory hours a week for one semester.

**Topic 7: Microcomputer Programming and Interfacing.** Microcomputer architecture and programming; microcomputer system analysis; interfacing and digital control.

**Topic 9: Mechatronics II.** Interfacing microcomputers with sensors and actuators; hybrid (analog/digital) design; digital logic and analog circuitry; data acquisition and control; microcomputer architecture, assembly language programming; signal conditioning, filters, analog-to-digital and digital-to-analog conversion. Three lecture hours and two laboratory hours a week for one semester.

**Topic 10: Statistical Methods in Manufacturing.** Same as Operations Research and Industrial Engineering 390Q (Topic 7: Statistical Methods in Manufacturing). Statistical monitoring of manufacturing processes; methods and applications of various control charts; formal design of experiments (DOE), including the statistical evaluation of main and interaction effects, as well as intelligent experimentation through reduced factorial experimental design; Taguchi's design philosophy as applied to response surface methods and gradient-based search techniques; and advanced issues in quality control and design of manufacturing systems. Additional prerequisite: Knowledge of basic probability and statistics and consent of instructor.

**M E 393M. Engineering Design Innovation.**

Restricted to Option III Mechanical Engineering Master's degree students. Focuses on design methodology that includes a survey of current research in areas in design theory and methodology. Studies the tools used for solving engineering system designs and synthesis problems for application in a reverse engineering and redesign project. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the Executive ME program.

**M E 394M. Topics in Mechanical Engineering.**

Restricted to Option III Mechanical Engineering Master's degree students. Topics in Engineering. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and admission to the Executive ME program.

**M E 395. The Enterprise of Technology.**

Studies the basis for assessing emerging technologies. Describes the process of technology commercialization, including identifying marketable technologies, defining products, and matching products to markets. Also studies intellectual property protection and strategy, and the steps and processes necessary to the successful design and manufacture of a product or service. Three lecture hours a week for one semester. Mechanical Engineering 395 and 397 (Topic: Enterprise of Technology: Laboratory to Market) may not both be counted. Prerequisite: Graduate standing.

**M E 395M. Engineering Design and Innovation with Product Design.**

Restricted to students in the Executive ME program. Focuses on design methodology that includes a survey of current research in areas in design theory and methodology. Designed to help students acquire tools for solving engineering system designs and synthesis problems which they can apply in a reverse engineering and redesign project. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**M E 396D. Decision and Control of Human-Centered Robots.**

Geared toward students who would like to use Python for their engineering careers with a focus on sharing and development of open source software applications. Emphasis on the important areas of system modeling, simulation, data analysis, and software/data management. Students create mini-projects in Python where they apply basic knowledge on software design and organization, debugging, open source practices, and data visualization. It is expected that students have some experience in programming and would like to advance to the next level. Three lecture hours a week for one semester. Aerospace Engineering 381P (Topic 13) and Mechanical Engineering 396D may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

**M E 396M. Materials Science and Engineering.**

Restricted to students in the Executive ME program. An exploration of the fundamental aspects of the relationships between processing, structure, properties and performance of engineering materials. Exploration of metals, ceramics, polymers, and composites. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**M E 396P. Application Programming for Engineers.**

Designed for students who have some experience in programming and are interested in the sharing and development of open source software applications. Provides an introduction to the Python programming language, an open source, flexible, and intuitive debug programming language, with an emphasis on system modeling, simulation, data analysis, and software/data management. Students create mini projects in Python that demonstrate software design and organization, debugging, open source practices, and data visualization. Three lecture

hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **M E 397. Current Studies in Engineering.**

The equivalent of three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 8: Energy and the Environment.** Additional prerequisite: Consent of instructor.

### **M E 197K, 297K, 397K. Graduate Seminar.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**Topic 1: Acoustics Seminar.** Offered on the credit/no credit basis only.

**Topic 2: Advanced Thermal/Fluid Seminar.** Offered on the credit/no credit basis only.

**Topic 3: Materials Engineering.** Offered on the credit/no credit basis only.

**Topic 4: Mechanical Systems and Design.** Offered on the credit/no credit basis only.

**Topic 5: Nuclear Engineering.** Offered on the credit/no credit basis only.

**Topic 6: Introductory Thermal/Fluid Seminar.** Offered on the credit/no credit basis only.

### **M E 397M. Graduate Research Internship.**

Research associated with enrollment in the Graduate Research Internship Program (GRIP). Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor and the dean of the Cockrell School of Engineering.

### **M E 197P, 297P, 397P. Projects in Mechanical Engineering.**

Independent project carried out under the supervision of a mechanical engineering faculty member. Three, six, or nine laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **M E 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in mechanical engineering and consent of the graduate adviser; for 698B, Mechanical Engineering 698A.

### **M E 398M. Introduction to Automatic Control.**

Restricted to students in the Executive ME program. Gain a basic intuition for and understanding of linear feedback systems and develop the mathematical tools to understand the basics of design and analysis of single-input single-output feedback control systems. Builds on the system modeling skills developed in previous courses in order to better understand how to control a system's behavior. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **M E 198P, 398P, 698P. Engineering Teaching Practicum.**

Mentored teaching experience completed by arrangement with the instructor of record for an undergraduate engineering course. May be completed in the same semester as a Teaching Assistant or Assistant Instructor assignment with additional responsibilities. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Mechanical Engineering 397 (Topic: Curriculum Design in Engineering) and 397 (Topic: Teaching Engineering) or equivalent; and admission to

the Graduate Certificate in Engineering Education Program; and consent of the graduate adviser.

### **M E 198Q, 398Q. Teaching Portfolio Preparation.**

Project course for students completing the Graduate Certificate in Engineering Education Program to prepare a portfolio highlighting their teaching qualifications and experiences. Not recommended for students with limited teaching experience or students who are within a few years of applying for full-time employment. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of the graduate adviser.

### **M E 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in mechanical engineering and consent of the graduate adviser.

### **M E 398S. Assessment and Curriculum Design in Engineering.**

Develop curriculum design skills in preparation for engineering faculty positions, including writing learning outcomes, assessing student learning and aligning expectations to activities and outcomes. Assessment is framed as an integrated part of course design, considers the strengths and weaknesses of a variety of quantitative and qualitative assessment strategies. Practice engineering course design and learn important considerations in coordinating department or college resources in preparation for an ABET engineering accreditation review. Three lecture hours a week for one semester. Mechanical Engineering 397 (Topic: Assess & Curric Design in Engr) and 398S may not both be counted. Prerequisite: Graduate standing.

### **M E 398T. Supervised Teaching in Mechanical Engineering.**

Application of learning and motivation theories to learning in engineering contexts. Practice teaching in nontraditional formats. Preparation of a teaching philosophy. Teaching under close supervision, group meetings or individual consultations, and reports as required. Three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant.

### **M E 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Medieval Studies Courses**

## **Medieval Studies: MDV**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **MDV 385L, 685L. Conference Course on Special Topics.**

Conference course. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **MDV 392L. Readings in Medieval Latin.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**MDV 392M, 692M. Seminar in Medieval Culture.**

Major medieval historical developments and monuments of culture in thought, literature, art, architecture, and music. For 392M, three lecture hours a week for one semester; for 692M, six lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**MDV 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

**Professional Courses**

# Mexican American Studies Courses

**Mexican American Studies: MAS****Lower-Division Courses****MAS 301. Introduction to Mexican American and Latina/o Studies.**

Three lecture hours a week for one semester. Mexican American Studies 301 and 319 (Topic: Introduction to Mexican American and Latina/o Studies) may not both be counted.

**MAS 307. Introduction to Mexican American Cultural Studies.**

An introduction to the theoretical and substantive issues covered under the interdisciplinary rubric of cultural studies. Explores the Mexican American cultural experience through the methodological approaches of historical analysis, cultural critique, and literary production. Three lecture hours a week for one semester.

**MAS 307C. Mexican American and Latina/o Folklore Across the United States.**

Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: Mex Amer/Lat Folk Across US), Mexican American Studies 307C, 319 (Topic: Mex Amer/Lat Folk Across US).

**MAS 308. Introduction to Mexican American Policy Studies.**

An introduction to the basics of policy analysis, employing demographic and empirical information on the Mexican American and Latino populations in the United States. Current policy issues such as bilingual education, affirmative action, the English-only movement, immigration, Latino consumers, Latino entrepreneurship, and NAFTA. Three lecture hours a week for one semester.

**MAS 308C. Latino Politics: Voter ID, Health, and Education.**

Three lecture hours a week for one semester. Only one of the following may be counted: Government 314 (Topic: Latino Pol:Voter ID/Health/EDU), Mexican American Studies 308C, 319 (Topic: Latino Pol:Voter ID/Health/EDU).

**MAS 309. Bilingualism in the Americas.**

Same as Linguistics 312F. Analyze the linguistic, cognitive, social, and cultural aspects of bilingualism in the Americas. Three lecture hours a week for one semester. Only one of the following may be counted: Linguistics 312 (Topic: Bilingualism in the Americas), 312F, Mexican American Studies 309, 319 (Topic: Bilingualism in the Americas).

**MAS 310. Chicanos in American Society.**

Same as Sociology 309. Introduction to the study of American character and its bearing on the Chicano experience. Three lecture hours a week for one semester.

**MAS 311. Ethnicity and Gender: La Chicana.**

Same as Sociology 308D and Women's and Gender Studies 301 (Topic 6). Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 311, 319 (Topic 1), Sociology 308 (Topic: Ethnicity and Gender: La Chicana), 308D, Women's and Gender Studies 301 (Topic 6).

**MAS 314. Mexican American Literature and Culture.**

Same as English 314V (Topic 3). Representative Chicano writers and genres, such as poetry, prose fiction, and theatre. Three lecture hours a week for one semester. English 314V (Topic 3) and Mexican American Studies 314 may not both be counted. May not be substituted for English 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K). Prerequisite: English 303C (or 603A), Rhetoric and Writing 306, 306Q, or Tutorial Course 303C (or 603A).

**MAS 315. Latina Performance: From Celia to Selena.**

Same as Women's and Gender Studies 301 (Topic 29). Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 315, 319 (Topic: Latina Performnc: Celia-Selena), Women's and Gender Studies 301 (Topic: Latina Performnc: Celia-Selena), 301 (Topic 29).

**MAS 316. History of Mexican Americans in the United States.**

Same as History 314K. Examines the origin and growth of the Mexican American community in the United States. Three lecture hours a week for one semester. History 314K and Mexican American Studies 316 may not both be counted.

**MAS 316C. Immigration and Ethnicity.**

Same as Asian American Studies 302 and History 317L (Topic 18). Examine the changing population of the United States from colonial times to present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 302, 310 (Topic: Immigration and Ethnicity), History 317L (Topic: Immigration and Ethnicity), 317L (Topic 18), Mexican American Studies 316C, 319 (Topic: Immigration and Ethnicity).

**MAS 316D. Latinas and Latinos and Segregation in the United States.**

Three lecture hours a week for one semester. Mexican American Studies 316D and 319 (Topic: Latina/os Segregation in US) may not both be counted.

**MAS 318. Mexican American Culture.**

Same as Anthropology 318L. Mexican American cultural distinctiveness in the areas of social organization, child rearing, food culture, folklore, language, and religion. Three lecture hours a week for one semester.

**MAS 318C. Latina and Latino Media and Popular Culture.**

Same as American Studies 315N and Women's and Gender Studies 301 (Topic 30). Explore Latina/o media and popular culture from 1950 to the present. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Latina/o Med/Pop Cul 1950-Pres), 315N, Mexican American Studies 318C, 319 (Topic: Latina/o Med/Pop Cul 1950-Pres), Women's and Gender Studies 301 (Topic: Latina/o Med/Pop Cul 1950-Pres), 301 (Topic 30).

### **MAS 318D. Introduction to Latinx Body Art.**

Same as Women's and Gender Studies 301 (Topic 3). Examine the social, historical, economic, and commercial contexts influencing the production, display, and circulation of Latinx body art. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 318D, 319 (Topic: Intro to Latinx Body Art), Women's and Gender Studies 301 (Topic: Intro to Latinx Body Art), 301 (Topic 3).

### **MAS 319. Special Topics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 2: The Chicano Movement.** Analyzes the history and legacy of the Chicano Movement in order to understand its origins, strategies, challenges, and successes. Mexican American Studies 319 (Topic: The History of the Chicano Movement) and 319 (Topic 2) may not both be counted.

**Topic 3: Latino Histories.** Same as History 317L (Topic 11). Explore the cultures, politics, and policies that shape the many Latino histories in the United States. Only one of the following may be counted: History 317L (Topic: Latino Histories), 317L (Topic 11), Mexican American Studies 319 (Topic: Latino Histories), 319 (Topic 3).

**Topic 4: Mexican American Women, 1910-Present.** Same as History 317L (Topic 12) and Women's and Gender Studies 301 (Topic 13). Examines the history of Mexican and Mexican American women in the United States from the twentieth century to the present. Only one of the following may be counted: History 317L (Topic: Mexican American Women, 1910-Present), 317L (Topic 12), Mexican American Studies 319 (Topic: Mexican American Women, 1910-Present), 319 (Topic 4), Women's and Gender Studies 301 (Topic: Mexican American Women, 1910-Present), 301 (Topic 13).

**Topic 5: Chicano Literature and Popular Culture.** Explores the ways in which Chicana/o creative writers have addressed their experiences in the United States. Mexican American Studies 319 (Topic: Chicano Literature and Popular Culture) and 319 (Topic 5) may not both be counted.

**Topic 6: Comparative Latina/o Immigration to the United States.** Only one of the following may be counted: Mexican American Studies 319 (Topic: Comparative Latina/o Immigration to the United States of America), 319 (Topic 6), Social Work 311 (Topic: Comparative Latina/o Immigration to the United States of America).

### **MAS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Mexican American Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Mexican American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **MAS 320C. Power and Place: Making Texas History.**

Same as African and African Diaspora Studies 320C, History 365G (Topic 21), and Race, Indigeneity, and Migration 320C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 320C, 370 (Topic: Power/Place: Making Tex His), History 365G (Topic: Power/Place: Making Tex His), 365G (Topic 21), Mexican American Studies 320C, Race, Indigeneity, and Migration 320C. Prerequisite: Upper-division standing.

### **MAS 320E. Texas before 1900.**

Same as History 320E. Focus on the basic history of Texas from roughly 1450 to 1900. Investigate major events such as the Texas Revolution and Civil War with an emphasis on how and why Texas, its culture, and its groups of people changed or did not change over time. Three lecture hours a week for one semester. Only one of the following may be counted: History 320E, 320L, 320P, Mexican American Studies 320E, 320L. Prerequisite: Upper-division standing.

### **MAS 320F. Texas, 1900 to the Present.**

Same as History 320F and Urban Studies 322T. Examine the steady dissociation of Texas from its Old South status to a transitional state and a power in national politics. Three lecture hours a week for one semester. Only one of the following may be counted: History 320F, 320R, Mexican American Studies 320F, 374 (Topic 16), Urban Studies 322T, 353 (Topic 2). Prerequisite: Upper-division standing.

### **MAS 320I. Mexican American Studies at UT.**

Same as American Studies 322D and History 365G (Topic 17). Trace the origins and development of Mexican American Studies at the national, regional, and local levels. Collaborate to help preserve and recognize the significance of Mexican American Studies at the University in historical and contemporary contexts. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: 50 Yrs Mex Am Studies at UT), 322D, History 365G (Topic: 50 Yrs Mex Am Studies at UT), 365G (Topic 17), Mexican American Studies 320I, 374 (Topic: 50 Yrs Mex Am Studies at UT). Prerequisite: Upper-division standing.

### **MAS 323C. Black Art, Brown Art.**

Same as African and African Diaspora Studies 335N and Art History 373E (Topic 1). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335N, 372E (Topic: Black Art, Brown Art), Art History 373E (Topic: Black Art, Brown Art), 373E (Topic 1), Mexican American Studies 323C, 374 (Topic: Black Art, Brown Art). Prerequisite: Upper-division standing.

### **MAS 326. Learning from Mexico City: NAFTA, Neoliberalism, and Narco Cultura.**

Restricted to students participating in the summer program in Mexico City, Mexico. Examines the historic rise of neoliberal reform and narco culture as a tie to the North American Free Trade Agreement brokered between the United States, Canada, and Mexico in 1994. Three lecture hours a week for one semester. Mexican American Studies 326 and MAS 374 (Topic: NAFTA/Neoliberalism/Narco Cul) may not both be counted.

### **MAS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Mexican American Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Mexican American Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **MAS 335M. Queer Migrations.**

Same as Women's and Gender Studies 335 (Topic 15). Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 335M, 374 (Topic: Queer Migrations), Women's and Gender Studies 335 (Topic: Queer Migrations), 335 (Topic 15). Prerequisite: Upper-division standing.

**MAS 337C. Chicana Feminisms.**

Same as American Studies 324I and Women's and Gender Studies 340 (Topic 87). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Chicana Feminisms), 324I, Mexican American Studies 337C, 374 (Topic: Chicana Feminisms), Women's and Gender Studies 340 (Topic: Chicana Feminisms), 340 (Topic 87). Prerequisite: Upper division standing.

**MAS 337D. Russian and Mexican Men in Popular Culture.**

Same as Comparative Literature 323 (Topic 58) and Russian, East European, and Eurasian Studies 325 (Topic 40). Study representations of masculinity in products of Mexican and Russian popular culture at the end of the twentieth and the beginning of the twenty-first centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Russian/Mexican Men in Pop Cul), 323 (Topic 58), Mexican American Studies 337D, 374 (Topic: Russian/Mexican Men in Pop Cul), Russian, East European, and Eurasian Studies 325 (Topic: Russian/Mexican Men in Pop Cul), 325 (Topic 40), Women's and Gender Studies 340 (Topic: Russian/Mexican Men in Pop Cul). Prerequisite: Upper-division standing.

**MAS 337F. Latina Feminism and Health.**

Same as Women's and Gender Studies 340 (Topic 88). Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 337F, 374 (Topic: Latina Feminism and Health), Women's and Gender Studies 340 (Topic: Latina Feminism and Health), 340 (Topic 88). Prerequisite: Upper-division standing.

**MAS 337G. Disability, Race, and Sexuality in Literature and Culture.**

Same as English 343D and Women's and Gender Studies 335 (Topic 17). Three lecture hours a week for one semester. Only one of the following may be counted: English 343D, 376M (Topic: Deviant Bodies:Disabl/Race/Sex), Mexican American Studies 337G, 374 (Topic: Deviant Bodies:Disabl/Race/Sex), Women's and Gender Studies 335 (Topic: Deviant Bodies:Disabl/Race/Sex), 335 (Topic 17). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**MAS 337I. Tejana Cultural Studies.**

Same as American Studies 370 (Topic 67) and Women's and Gender Studies 340 (Topic 97). Investigate the history of Tejanas to reaffirm and reclaim their place and role in the histories of Native Americans, women, Chican@/Chicanxs, Greater Mexico, and the United States. Explore how transborderism and transregionalism complicate this history. Contemplate how Tejanas' stories are fundamental to illuminating the struggles, resistance, and liberation of Chicanas, mestizas, and afro-mexicanas from precontact to decolonization. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Tejana Cultural Studies), 370 (Topic 67), Mexican American Studies 337I, 374 (Topic: Tejana Cultural Studies), Women's and Gender Studies 340 (Topic: Tejana Cultural Studies), 340 (Topic 97). Prerequisite: Upper-division standing.

**MAS 340S. Latina and Latino Spirituality.**

Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Latina/o Spirituality), Mexican American Studies 340S, 374 (Topic: Latina/o Spirituality), Religious Studies 346 (Topic: Latina/o Spirituality), Women's and Gender Studies 335 (Topic: Latina/o Spirituality). Prerequisite: Upper-division standing.

**MAS 345C. Julia Alvarez and Sandra Cisneros.**

Same as English 348C and Women's and Gender Studies 340 (Topic 86). Three lecture hours a week for one semester. Only one of the following

may be counted: English 348C, 349S (Topic: Alvarez and Cisneros), Mexican American Studies 345C, 374 (Topic: Alvarez and Cisneros), Women's and Gender Studies 340 (Topic: Alvarez and Cisneros), 340 (Topic 86). Prerequisite: Upper-division standing.

**MAS 345D. Life and Literature of the US-Mexico Borderlands.**

Same as English 342M. Examine the literature of the US-Mexico borderlands experience, with an emphasis on the historical and social conditions that characterize this unique region. Explore this in the context of prose fiction, as well as drama, film, and poetry. Three lecture hours a week for one semester. Only one of the following may be counted: English 342 (Topic 1), 342M, Mexican American Studies 345D, 374 (Topic 2). Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**MAS 345E. Latinx Short Story.**

Same as English 343E and Women's and Gender Studies 340 (Topic 90). Three lecture hours a week for one semester. Only one of the following may be counted: English 343E, 376M (Topic: Latinx Short Story), Mexican American Studies 345E, 374 (Topic: Latinx Short Story), Women's and Gender Studies 340 (Topic: Latinx Short Story), 340 (Topic 90). Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for other majors, upper-division standing.

**MAS 347C. Transnational Latinx Popular Culture.**

Same as Latin American Studies 328C and Women's and Gender Studies 340 (Topic 89). Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 328 (Topic: Transnatl Latinx Pop Culture), 328C, Mexican American Studies 347C, 374 (Transnatl Latinx Pop Culture), Women's and Gender Studies 340 (Topic: Transnatl Latinx Pop Culture), 340 (Topic 89). Prerequisite: Upper-division standing.

**MAS 350E. The Environment and Mexican America.**

Three lecture hours a week for one semester. Mexican American Studies 350E and 374 (Topic: Environment and Mex America) may not both be counted. Prerequisite: Upper-division standing.

**MAS 350F. Latino Urbanism in the United States City.**

Same as Urban Studies 328L. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 327R (Topic: Latino Urbanism in US City), Mexican American Studies 350F, 374 (Topic: Latino Urbanism in US City), Urban Studies 328L, 354 (Topic: Latino Urbanism in US City). Prerequisite: Upper-division standing.

**MAS 357L. Latinas, Latinos and Language.**

Same as Linguistics 350J. Three lecture hours a week for one semester. Only one of the following may be counted: Linguistics 350 (Topic: Latina/os and Language), 350J, Mexican American Studies 357L, 374 (Topic: Latina/os and Language). Prerequisite: Upper-division standing.

**MAS 357M. Bilingual Minds.**

Same as Linguistics 373J. Three lecture hours a week for one semester. Only one of the following may be counted: Linguistics 373 (Topic: Bilingual Minds), 373J, Mexican American Studies 357M, 374 (Topic: Bilingual Minds). Prerequisite: Upper-division standing.

**MAS 357P. Latina and Latino Psychology.**

Three lecture hours a week for one semester. Only one of the following may be counted: Educational Psychology 362 (Topic: Latina/o Psychology), 376T (Topic: Latina/o Psychology), Mexican American Studies 357P, 374 (Topic: Latina/o Psychology). Prerequisite: Upper-division standing.

**MAS 361. Mexican American Cultural Studies Seminar.**

Explores cultural studies literature as read through the experience of the Mexican-origin community in the United States. Discussions include race, class, and feminism. Students write a research paper and deliver a scholarly presentation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and Mexican American Studies 307.

**MAS 362. Mexican American Policy Studies Seminar.**

Profiles the current economic status of Mexican Americans in the United States. Examines two dimensions of public policy: historical trends and comparisons with other ethnic groups. Students write a policy report and deliver a professional presentation. Three lecture hours a week for one semester. Mexican American Studies 362 and 374 (Topic: Mexican American Public Policy Issues) may not both be counted. Prerequisite: Upper-division standing and Mexican American Studies 308.

**MAS 363. Sociolinguistics in Mexican American and Latina/o Studies.**

Examines the presence and use of language in the United States with focus on aspects affecting Latina/o communities. Three lecture hours a week for one semester. Mexican American Studies 363 and 374 (Topic: Sociolinguistics in Mexican American and Latina/o Studies) may not both be counted. Prerequisite: Upper-division standing.

**MAS 363R. Bad Language: Race, Class, and Gender.**

Same as Comparative Literature 323 (Topic 52), Russian, East European, and Eurasian Studies 325 (Topic 32), and Women's and Gender Studies 340 (Topic 74). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Bad Language: Race, Class, and Gender), Comparative Literature 323 (Topic: Bad Language: Race, Class, and Gender), 323 (Topic 52), Linguistics 350 (Topic: Bad Language: Race, Class, and Gender), Mexican American Studies 363R, 374 (Topic: Bad Language: Race, Class, and Gender), Russian 369 (Topic: Bad Language: Race, Class, and Gender), Russian, East European, and Eurasian Studies 325 (Topic: Bad Language: Race, Class, and Gender), 325 (Topic 32), Women's and Gender Studies 340 (Topic: Bad Language: Race, Class, and Gender), 340 (Topic 74). Prerequisite: Upper-division standing.

**MAS 364. History of the United States-Mexico Borderland.**

Same as History 365G (Topic 12). Introduction to the history of the United States and Mexico border region. Three lecture hours a week for one semester. Only one of the following may be counted: History 365G (Topic: History of the United States-Mexico Borderland), 365G (Topic 12), Mexican American Studies 364, 374 (Topic: History of the United States-Mexico Borderland). Prerequisite: Upper-division standing.

**MAS 364C. The Civil Rights Movement from a Comparative Perspective.**

Same as African and African Diaspora Studies 350U, American Studies 370 (Topic 60), and History 350R (Topic 35). Focuses on African American and Mexican American struggles for civil rights. Asian American and Native American movements will also be addressed. Using a comparative approach the student will consider the distinctiveness of each of these struggles while also viewing them in relation to each other. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350U, 374D (Topic: Civil Rts Mov from Comp Persp), 374D (Topic 18), American Studies 370 (Topic: Civil Rts Mov from Comp Persp), 370 (Topic 60), History 350R (Topic 35), Mexican American Studies 364C, 374 (Topic: Civil Rts Mov from Comp Persp). Prerequisite: Upper-division standing and six semester hours of coursework in history.

**MAS 364D. Latino Migrations and Asylum.**

Same as Latin American Studies 322E. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 364D, 374 (Topic: Latino Migrations and Asylum), Latin American Studies 322 (Topic: Latino Migrations and Asylum), 322E. Prerequisite: Upper-division standing.

**MAS 364E. Policing Latinidad.**

Same as American Studies 324G and Women's and Gender Studies 340 (Topic 95). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Policing Latinidad), 324G, Mexican American Studies 364E, 374 (Topic: Policing Latinidad), Women's and Gender Studies 340 (Topic: Policing Latinidad), 340 (Topic 95). Prerequisite: Upper-division standing.

**MAS 364F. Mexican Immigration Cultural History.**

Same as Anthropology 322P and Latin American Studies 324L (Topic 16). Examines the history of Mexican immigration to the United States, and provides an overview of migratory patterns dating back to the late prehistoric period through contemporary times. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322M (Topic 12), 322P, Latin American Studies 324L (Topic 16), Mexican American Studies 364F, 374 (Topic: Mexican Immigration Cultural History). Prerequisite: Upper-division standing.

**MAS 364G. Latino Migration and Human Trafficking.**

Same as Latin American Studies 322F and Sociology 322T. Critically examine the complexity and intersectionality of Latino migration and human trafficking from global, regional, and local perspectives. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 322 (Topic: Latino Migrtn/Human Traffic), 322F, Mexican American Studies 364G, 374 (Topic: Latino Migrtn/Human Traffic), Sociology 321K (Topic: Latino Migrtn/Human Traffic), 322T. Prerequisite: Upper-division standing.

**MAS 364I. Mexican American Political Thought.**

Same as Government 337V. Critically explore the multiple complementary and contradictory intellectual expressions of Mexican American political thought. Pay particular attention to Texas from the mid-nineteenth century through the period of the Chicano Movement in the latter part of the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Government 337M (Topic: Mex Amer Political Thought), 337V, Mexican American Studies 364I, 374 (Topic: Mex Amer Political Thought). Prerequisite: Upper-division standing.

**MAS 364J. Migration Crisis.**

Same as African and African Diaspora Studies 360J, Asian American Studies 330N, and Race, Indigeneity, and Migration 330N. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360J, 374D (Topic: Migration Crisis), Asian American Studies 330N, 335 (Topic: Migration Crisis), Mexican American Studies 364J, 374 (Topic: Migration Crisis), Race, Indigeneity, and Migration 330N. Prerequisite: Upper-division standing.

**MAS 364K. Afro-Latinidades in the United States and Latin America.**

Same as African and African Diaspora Studies 345T and Latin American Studies 322Q. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345T, 370 (Topic: Afro-Latinidades US/Lat Am), 374E (Topic: Afro-Latinidades US/Lat Am), Latin American Studies 322 (Topic: Afro-Latinidades US/Lat Am), 322Q, Mexican American Studies 364K, 374

(Topic: Afro-Latinidades US/Lat Am). Prerequisite: Upper-division standing.

### **MAS 364P. Puerto Rico In Crisis.**

Same as African and African Diaspora Studies 350K, American Studies 370 (Topic 56), and History 347J. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350K, 374E (Topic: Puerto Rico In Crisis), American Studies 370 (Topic: Puerto Rico In Crisis), 370 (Topic 56), History 347J, 363K (Topic: Puerto Rico In Crisis), Mexican American Studies 364P, 374 (Topic: Puerto Rico In Crisis). Prerequisite: Upper-division standing.

### **MAS 370. Chicana/o Film.**

Same as Radio-Television-Film 359 (Topic 9). Investigate representations of Chicanas/os, both on-screen and behind the scenes of U.S. films. Explore films made by, for, and about Chicanos/as and Mexican-Americans from the Chicano Movement of the 1960s to the present day. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 370, 374 (Topic: Chicana/o Film), Radio-Television-Film 359 (Topic: Chicana/o Film), 359 (Topic 9). Prerequisite: Upper-division standing.

### **MAS 370C. Latina Filmmakers.**

Same as Radio-Television-Film 359 (Topic 10) and Women's and Gender Studies 340 (Topic 99). Explore the history of U.S.-based Latina filmmakers (primarily directors, producers, and screenwriters) and the images they have created. Examine early representations of Latinas in Hollywood film and consider how Latina filmmakers have gained increasing control over their own images, particularly since the 1990s. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 370C, 374 (Topic: Latina Filmmakers), Radio-Television-Film 359 (Topic: Latina Filmmakers), 359 (Topic 10), Women's and Gender Studies 340 (Topic: Latina Filmmakers), 340 (Topic 99). Prerequisite: Upper-division standing.

### **MAS 370D. Latinx Media, Arts, and Activism.**

Same as Radio-Television-Film 365 (Topic 15). Investigate the ways in which Latinx activists have used mainstream, alternative, legacy, and new media (as well as other visual and performing arts), to affect social and political change in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 370D, 374 (Topic: Latinx Media/Arts/Activism), Radio-Television-Film 365 (Topic: Latinx Media/Arts/Activism), 365 (Topic 15). Prerequisite: Upper-division standing.

### **MAS 371. Readings in Mexican American Studies.**

Supervised readings with parallel work in relevant non-Chicano materials; preparation for Mexican American Studies 372. Individual instruction. Prerequisite: Mexican American Studies 310, 318, and 374; or consent of the director.

### **MAS 372. Research Seminar in Mexican American Studies.**

Supervised research on a Mexican American topic chosen in consultation with adviser and leading to a full-length essay. Individual instruction. Prerequisite: Consent of the academic adviser.

### **MAS 373. Independent Research.**

Individual instruction. May be repeated for credit. Prerequisite: Consent of the academic adviser.

### **MAS 374. Special Topics.**

Three lecture hours a week for one semester. Additional hours are required for some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 15: Latino Politics.** Same as Government 371L and Latin American Studies 337S. Explore the political experiences of the United States Latino populations. Three lecture hours a week for one semester. Only one of the following may be counted: Government 370K (Topic 2), 371L, Latin American Studies 337M (Topic 8), 337S, Mexican American Studies 374 (Topic 15). Additional prerequisite: Six semester hours of lower-division coursework in government.

**Topic 22: Minorities and the Media.** Issues concerning minority or nondominant groups within the United States. Survey of minority communication problems: alienation, fragmentation, media and Internet access; criticism and feedback for minority groups based on racial/ethnic background, age, sex, disability, social or economic class, and sexual orientation. Only one of the following may be counted: Journalism 341H, 341J, 341M, Latin American Studies 322 (Topic 10), Mexican American Studies 374 (Topic 22), Urban Studies 354 (Topic: Minorities and the Media), Women's and Gender Studies 340 (Topic 21). Additional prerequisite: Upper-division standing.

**Topic 23: Mexican American Indigenous Heritage.** Same as Anthropology 322Q and Latin American Studies 324L (Topic 20). The prehistory, history, and contemporary racial understanding of Mexican Americans. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322M (Topic 10), 322Q, Latin American Studies 324L (Topic: Mexican Amer Indig Heritage), 324L (Topic 20), Mexican American Studies 374 (Topic 23). Additional prerequisite: Upper-division standing.

**Topic 32: Radical Latinos.** Same as American Studies 370 (Topic 39: Radical Latinos). Examines the social positioning and history of Latinas/os in the United States. Analyzes the histories of Latinas/os who have gone against mainstream expectations, or who have challenged or critiqued the status quo in provocative and unexpected ways. Only one of the following may be counted: American Studies 370 (Topic Radical Latinos), 370 (Topic 39), Mexican American Studies 374 (Topic: Radical Latinos), 374 (Topic 32). Prerequisite: Upper-division standing.

**Topic 33: United States Latino and Latina Ethnographies.** Same as Anthropology 324L (Topic 42). Explores past and present anthropological representations of Latinos and Latinas in the United States. Only one of the following may be counted: Anthropology 324L (Topic: U.S. Latino/a Ethnographies), 324L (Topic 42), Mexican American Studies 374 (Topic: U.S. Latino/a Ethnographies), 374 (Topic 33).

**Topic 34: Writing Border Narratives.** Same as Creative Writing 325 (Topic 1). Examines the United States and Mexico border through the use of the personal essay in its various forms. Students write personal essays that focus on their relationships to the border. Only one of the following may be counted: Creative Writing 325 (Topic: Writing Border Narratives), 325 (Topic 1), Mexican American Studies 374 (Topic: Writing Border Narratives), 374 (Topic 34). Additional prerequisite: Comparative Literature 315, English 303D (or 603B), 316L (or 316K), 316M (or 316K), 316N (or 316K), 316P (or 316K), or Tutorial Course 303D (or 603B).

**Topic 35: Race and Citizenship in United States History.** Same as American Studies 370 (Topic 48) and History 350R (Topic 25). Uses primary and secondary sources to analyze how race and citizenship have functioned for populations of color in the United States. Only one of the following may be counted: American Studies 370 (Topic: Race and Citizenship in United States History), 370 (Topic 48), History 350R (Topic: Race and Citizenship in United States History), 350R (Topic 25), Mexican American Studies 374 (Topic: Race and Citizenship in United States History), 374 (Topic 35).

**Topic 37: United States Catholic History.** Same as American Studies 327D, History 365G (Topic 1), and Religious Studies 346F. Examine how Catholicism and national identity work for Catholics in the United States, with an emphasis on Catholic women and Latino/as. Only one of the following may be counted: American Studies 327 (Topic 4),

327D, History 365G (Topic 1), Mexican American Studies 374 (Topic 37), Religious Studies 346 (Topic 5), 346F. Additional prerequisite: Upper-division standing.

**Topic 38: Feminist Interventions in Borderlands History.** Same as American Studies 370 (Topic 45) and Women's and Gender Studies 340 (Topic 45). Provides an in-depth understanding of the social, economic, and spatial transformations of the United States/Mexico borderlands in the nineteenth and early twentieth centuries. Only one of the following may be counted: American Studies 370 (Topic: Feminist Interventions in Borderlands History), 370 (Topic 45), Mexican American Studies 374 (Topic: Feminist Interventions in Borderlands History), 374 (Topic 38), Women's and Gender Studies 340 (Topic: Feminist Interventions in Borderlands History), 340 (Topic 45).

**Topic 40: Gender, Class, and Ethnicity American Literature and Film.** Examines the ways in which authors and filmmakers construct gender, class, and identity in each of their texts. Only one of the following may be counted: English 344L (Topic: Gender/Class/Ethnic American Literature and Film), Mexican American Studies 374 (Topic: Gender/Class/Ethnic American Literature and Film), 374 (Topic 40), Women's and Gender Studies 340 (Topic: Gender/Class/Ethnic American Literature and Film). Additional prerequisite: Upper-division standing.

**Topic 41: Border Control and Deaths.** Same as Sociology 323D. Focus on enactment of border control policies, policy implementation and death patterns at the United States-Mexico border, patterns of unauthorized border crossings through dangerous border terrain, grassroots movements to support migrants and lessen deaths, and the ethics of coercive border control. Surveys the public sentiments and attitudes that support new border control policies, the patterns of migrant deaths in deserts and in the Rio Grande River associated with border control strategies, movements and community efforts to support migrants in the Arizona border area, and legal and ethical arguments and concepts that frame discussions of migrant deaths at the United States-Mexico border. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 374 (Topic: Border Control/Deaths), 374 (Topic 41), Sociology 321K (Topic: Border Control/Deaths), 323D. Additional prerequisite: Upper-division standing.

**Topic 42: United States Immigration.** Same as Sociology 322U. Utilizes a sociological perspective to gain an understanding of what social forces drive migration to the United States, how migrants organize their migration, and how immigration affects United States' society. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 374 (Topic: US Immigration), 374 (Topic 42), Sociology 321K (Topic: US Immigration), or 322U. Additional prerequisite: Upper-division standing.

### **MAS 375. Internship.**

Restricted to Mexican American studies majors. Participate in a nonpartisan, direct-service capacity in a community, civic, or government organization or program that facilitates the economic, political, and social development of the Mexican American community. Write a report based on the internship project under the supervision of a faculty member. The equivalent of three lecture hours a week for one semester. Prerequisite: Consent of the internship coordinator.

### **MAS 376. Mexican American and Latina/o Studies Community Research and Analysis.**

Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374D (Topic: Community Research & Analysis), Mexican American Studies 374 (Topic: Community Research & Analysis), 376. Prerequisite: Upper-division standing.

### **MAS 177. Mellon Mays Program Seminar.**

Restricted to students accepted to the Mellon Mays Program. Seminar designed as an interdisciplinary primer to the exploration of research, writing, and professionalization in preparation for doctoral study. One lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and consent of instructor.

### **MAS 378. Capstone Seminar.**

Pursue in depth the research interests and methodological skills developed in other Mexican American and Latina/o Studies classes. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Mexican American Studies 301; and 307 or 308 or 309.

### **MAS 679H. Honors Tutorial Course.**

Restricted to Mexican American studies majors. Supervised research, readings, and writing of a substantial paper on a Mexican American studies topic. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679HA, Mexican American Studies 361, 362, or 372 with a grade of A; admission to the Mexican American Studies Honors Program no later than two semesters before expected graduation; a University grade point average of at least 3.00; and a grade point average in Mexican American studies of at least 3.50; for 679HB, Mexican American Studies 679HA.

## **Graduate Courses**

### **MAS 680. Clinical Program: Human Rights.**

Six lecture hours a week for one semester, with additional hours to be arranged. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **MAS 381. Learning from Mexico City: NAFTA, Neoliberalism, and Narco Cultura.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **MAS 382. Conference Course in Mexican American Studies.**

Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of the graduate adviser.

### **MAS 383. Internships in Applied Mexican American and Latina/o Studies.**

Practical field experience working in an agency, organization, business, or other site approved by the department after completion of M.A. or Ph.D. programs. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of graduate coordinator.

### **MAS 390. Introduction to Mexican American and Latina/o Studies.**

An overview of Mexican American studies for graduate research. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **MAS 392. Topics in Mexican American and Latina/o Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser; additional prerequisites vary with the topic.

### **MAS 394C. Service Learning Practicum.**

Provides the opportunity to identify and discuss the integration of service learning into course curricula and explore the ethics, dilemmas, challenges, and opportunities of service learning. Three lecture hours a

week for one semester. Additional hours may be required. Prerequisite: Graduate standing and consent of the graduate adviser.

### **MAS 395C. Theories in Mexican American and Latina/o Studies.**

Examines the major theoretical foundations in Mexican American and Latina/o Studies. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **MAS 395D. Theoretical Foundations of Behavioral and Social Science.**

An overview of social and behavioral science theories that are currently used to understand health related behaviors and guide development of interventions designed to prevent, reduce or eliminate major public health problems. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **MAS 395M. Interpretive Methods.**

Prerequisite: Graduate standing and consent of the graduate adviser.

### **MAS 397R. Secondary Report.**

Preparation of a report to be counted toward the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Mexican American studies and consent of the graduate adviser.

### **MAS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Mexican American studies and consent of the graduate adviser; for 698B, Mexican American Studies 698A.

### **MAS 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Mexican American studies and consent of the graduate adviser.

### **MAS 398T. Supervised Teaching in Mexican American and Latina/o Studies.**

Methods of interdisciplinary teaching and professional work in Mexican American and Latina/o Studies. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Mexican American and Latina/o Studies or consent of the graduate instructor and adviser.

### **MAS 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Middle Eastern Languages and Cultures Courses**

## **Middle Eastern Languages and Cultures: MEL Lower-Division Courses**

### **MEL 301. Gateway to the Middle East.**

Same as Middle Eastern Studies 301C. Three lecture hours a week for one semester. Middle Eastern Languages and Cultures 301 and Middle Eastern Studies 301C may not both be counted.

### **MEL 301J. The Ancient Middle East.**

Same as Ancient History and Classical Civilization 310 (Topic 3), History 306Q, and Middle Eastern Studies 301J. Survey the history of the Middle East from the beginning of the Neolithic period (9000 BCE) through the invasion of the region by Alexander the Great in 332 BCE and into the pre-Islamic era. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic 3), History 306Q, Middle Eastern Languages and Cultures 301J, Middle Eastern Studies 301J.

## **Upper-Division Courses**

### **MEL 321. Topics in Middle Eastern Languages and Cultures.**

Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: Islamic Studies 372, Middle Eastern Languages and Cultures 321, Middle Eastern Studies 342. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Introduction to Arabic Literature.** Same as Comparative Literature 323 (Topic 13), Islamic Studies 373 (Topic 1), and Middle Eastern Studies 342 (Topic 1). General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era. Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Arabic Literature), 323 (Topic 13), Islamic Studies 373 (Topic 1), Middle Eastern Languages and Cultures 321 (Topic 1), Middle Eastern Studies 342 (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 2: Loyalty and Rebellion in Arabic Literature.** Same as Islamic Studies 373 (Topic 2) and Middle Eastern Studies 342 (Topic 2). Only one of the following may be counted: Islamic Studies 373 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 2), Middle Eastern Studies 342 (Topic 2). Additional prerequisite: Upper-division standing.

**Topic 3: Memory and Identity in Ancient Arabia.** Same as Islamic Studies 373 (Topic 3) and Middle Eastern Studies 342 (Topic 3). Only one of the following may be counted: Islamic Studies 373 (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 3), Middle Eastern Studies 342 (Topic 3). Additional prerequisite: Upper-division standing.

**Topic 4: The Arabian Nights.** Same as Islamic Studies 373 (Topic 4) and Middle Eastern Studies 342 (Topic 4). Only one of the following may be counted: Comparative Literature 323 (Topic: The Arabian Nights), Middle Eastern Languages and Cultures 321 (Topic 4), Religious Studies 358 (Topic: The Arabian Nights), Women's and Gender Studies 340 (Topic: The Arabian Nights). Additional prerequisite: Upper-division standing.

**Topic 5: Israel Through Its Literature.** Same as Comparative Literature 323 (Topic 15), Jewish Studies 363 (Topic 17), and Middle Eastern Studies 342 (Topic 5). Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Israeli Literature), Comparative Literature 323 (Topic 15), English 322 (Topic: Introduction to Israeli Literature), Jewish Studies 363 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic 5), Middle Eastern Studies 342 (Topic 5). Additional prerequisite: Upper-division standing.

**Topic 6: Love and the State in Contemporary Israeli Literature.** Same as Jewish Studies 363 (Topic 7) and Middle Eastern Studies 342 (Topic 6). Only one of the following may be counted: Comparative Literature 323 (Topic: Love and State in Contemporary Israeli Literature), English 322 (Topic: Love and State in Contemporary Israeli Literature), Jewish Studies 363 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 6), Middle Eastern Studies 342 (Topic 6), Women's and Gender Studies 340 (Topic: Love and State in Contemporary Israeli Literature). Additional prerequisite: Upper-division standing.

**Topic 7: Postmodernist Israeli Literature.** Same as Jewish Studies 363 (Topic 19) and Middle Eastern Studies 342 (Topic 7). Study of the first decades of Israeli literature. Themes include the establishment of a new state in the aftermath of the Holocaust, conflict between Israel and Arab nations, and conflict between Israelis and Palestinians. Only one of the following may be counted: Comparative Literature 323 (Topic: Postmodernist Israeli Literature), English 322 (Topic: Postmodernist Israeli Literature), Jewish Studies 363 (Topic 19), Middle Eastern Languages and Cultures 321 (Topic 7), 342 (Topic 7). Additional prerequisite: Upper-division standing.

**Topic 8: The Sacred and the Secular in Contemporary Jewish Literature.** Same as Jewish Studies 363 (Topic 10), Middle Eastern Studies 342 (Topic 8), and Religious Studies 353L. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8), Middle Eastern Studies 342 (Topic 8), Religious Studies 353 (Topic 3), 353L. Additional prerequisite: Upper-division standing.

**Topic 9: The Qur'an.** Same as Comparative Literature 323 (Topic 37), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, and Women's and Gender Studies 340 (Topic 54). The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upper-division standing.

**Topic 10: Persian Literature, Past and Present.** Same as Middle Eastern Studies 342 (Topic 10). Middle Eastern Languages and Cultures 321 (Topic 10) and Middle Eastern Studies 342 (Topic 10) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 11: Iranian Women Writers.** Same as Middle Eastern Studies 342 (Topic 11) and Women's and Gender Studies 340 (Topic 10). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 11), Middle Eastern Studies 342 (Topic 11), WGS 340 (Topic 10). Additional prerequisite: Upper-division standing.

**Topic 13: Iranian Literature in Exile.** Same as Middle Eastern Studies 342 (Topic 13). Middle Eastern Languages and Cultures 321 (Topic 13) and Middle Eastern Studies 342 (Topic 13) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 14: Iranian Film and Fiction.** Same as Middle Eastern Studies 342 (Topic 14). Middle Eastern Languages and Cultures 321 (Topic 14) and Middle Eastern Studies 342 (Topic 14) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 16: Gender in North and West Africa.** Same as African and African Diaspora Studies 340S, Islamic Studies 373 (Topic 8), Middle Eastern Studies 342 (Topic 28), and Women's and Gender Studies 340 (Topic 34). Examines gender discourses through North African and West African literary works by looking at the role(s) played by Islam and Christianity in the creation of the identities of African men and women. Includes discussion of the question of what gender is,

and whether it is socially constructed. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340S, 372G (Topic 5), Islamic Studies 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 342 (Topic 28), Women's and Gender Studies 340 (Topic 34). Additional prerequisite: Upper-division standing.

**Topic 17: The Dead Sea Scrolls.** Same as Ancient History and Classical Civilization 330 (Topic 1), History 364E, Jewish Studies 364 (Topic 4), Middle Eastern Studies 342 (Topic 23), and Religious Studies 353D. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic 1), History 364G (Topic 3), 364E, Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), Religious Studies 353D. Additional prerequisite: Upper-division standing.

**Topic 19: Islamic Law.** Same as Islamic Studies 340 (Topic 5), Middle Eastern Studies 342 (Topic 27), Religious Studies 358K, and Women's and Gender Studies 340 (Topic 27). Designed to give students a foundation in the substantive teachings of the shariah, which comprises not only what we normally think of as law, but also ethics and etiquette. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic 5), Middle Eastern Languages and Cultures 321 (Topic: Islamic Law), 321 (Topic 19), Middle Eastern Studies 342 (Topic 27), Religious Studies 358 (Topic: Islamic Law), 358 (Topic 9), 358K, Women's and Gender Studies 340 (Topic 27). Additional prerequisite: Upper-division standing.

**Topic 20: Iranian Culture.** Same as Islamic Studies 373 (Topic 10) and Middle Eastern Studies 342 (Topic 30). Only one of the following may be counted: Islamic Studies 373 (Topic: Iranian Culture), Islamic Studies 373 (Topic 10), Middle Eastern Languages and Culture 321 (Topic: Iranian Culture), Middle Eastern Languages and Cultures (Topic 20), Middle Eastern Studies 342 (Topic: Iranian Culture), Middle Eastern Studies 342 (Topic 30), Persian 372 (Topic: Iranian Culture). Additional prerequisite: Upper-division standing.

**Topic 21: Palestine and the Palestinians: A Journey Through Time.** Same as Middle Eastern Studies 342 (Topic 31). Three lecture hours per week for one semester. Only one of the following may be counted: Arabic 360L (Topic: Palestine and the Palestinians), 360L (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 21), Middle Eastern Studies 342 (Topic 31). Additional prerequisite: Upper-division standing.

**Topic 22: Veiling in the Muslim World.** Same as Asian Studies 372F, Islamic Studies 372 (Topic 2), Religious Studies 358V, and Women's and Gender Studies 340 (Topic 11). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 14), 372F, Islamic Studies 372 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 22), Religious Studies 358 (Topic 5), 358V, Women's and Gender Studies 340 (Topic 11). Additional prerequisite: Upper-division standing.

**Topic 23: Women Filmmakers in the Middle East.** Same as Middle Eastern Studies 342 (Topic 32) and Women's and Gender Studies 340 (Topic 55). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 23), Middle Eastern Studies 322K (Topic: Women Filmmakers in the Middle East), 342 (Topic 32), Turkish 372 (Topic: Women Filmmakers in the Middle East), Women's and Gender Studies 340 (Topic: Women Filmmakers in the Middle East), 340 (Topic 55). Additional prerequisite: Upper-division standing.

**Topic 25: Love in the East and West.** Same as Comparative Literature 323 (Topic 36), Core Texts and Ideas 343, 345 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 25), Middle Eastern Studies 342 (Topic 33). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 36), Core Texts and Ideas 343, 345 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 25), Middle Eastern Studies 342 (Topic 33). Additional prerequisite: Upper-division standing.

**Topic 27: Islamic Theology.** Same as Core Texts and Ideas 357, Islamic Studies 340 (Topic 7), Middle Eastern Studies 342 (Topic 35), and Religious Studies 358U. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 375 (Topic 2), 357, Islamic Studies 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 27), Middle Eastern Studies 342 (Topic 35), Religious Studies 358 (Topic 14), 358U. Additional prerequisite: Upper-division standing.

**Topic 28: Rumi and the Persian Sufi Tradition.** Same as Islamic Studies 373 (Topic 12) and Middle Eastern Studies 342 (Topic 36). Only one of the following may be counted: Comparative Literature 323 (Topic: Rumi & Persian Sufi Tradition), Islamic Studies 372 (Topic: Rumi & Persian Sufi Tradition), Islamic Studies 373 (Topic: Rumi & Persian Sufi Tradition), Islamic Studies 373 (Topic 12), Middle Eastern Languages and Cultures 321 (Topic: Rumi & Persian Sufi Tradition), Middle Eastern Languages and Cultures 321 (Topic 28), Middle Eastern Studies 321K (Topic: Rumi & Persian Sufi Tradition), Middle Eastern Studies 342 (Topic: Rumi & Persian Sufi Tradition), Middle Eastern Studies 342 (Topic 36), Persian 361 (Topic: Rumi & Persian Sufi Tradition), Religious Studies 358 (Topic: Rumi & Persian Sufi Tradition). Additional prerequisite: Upper-division standing.

**Topic 29: Daily Life in Ancient Egypt.** Same as African and African Diaspora Studies 340Q, Classical Civilization 348 (Topic 24), and Middle Eastern Studies 342 (Topic 51). Delves into all areas of Egyptian daily life from the dawn of the dynasties to the age of Cleopatra. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340Q, 374C (Topic: Daily Life in Ancient Egypt), 374C (Topic 7), Classical Civilization 348 (Topic: Daily Life in Ancient Egypt), 348 (Topic 24), Middle Eastern Languages and Cultures 321 (Topic: Daily Life in Ancient Egypt), 321 (Topic 29), Middle Eastern Studies 342 (Topic: Daily Life in Ancient Egypt), 342 (Topic 51). Additional prerequisite: Upper-division standing.

**Topic 30: The Middle East in World Poetry.** Same as Islamic Studies 373 (Topic 14) and Middle Eastern Studies 342 (Topic 39). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Middle East in World Poetry), Islamic Studies 373 (Topic: Middle East in World Poetry), 373 (Topic 14), Middle Eastern Languages and Cultures 321 (Topic: Middle East in World Poetry), 321 (Topic 30), Middle Eastern Studies 342 (Topic: Middle East in World Poetry), 342 (Topic 39). Additional prerequisite: Upper-division standing.

**Topic 31: Gender and Art in the Muslim World.** Same as Asian Studies 374D, Islamic Studies 373 (Topic 15), Middle Eastern Studies 342 (Topic 40), Religious Studies 358W, and Women's and Gender Studies 340 (Topic 62). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 46), 374D, Islamic Studies 373 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 31), Middle Eastern Studies 342 (Topic 40), Religious Studies 358 (Topic 20), 358W, Women's and Gender Studies 340 (Topic 62). Additional prerequisite: Upper-division standing.

**Topic 33: Archaeology of Greek Prehistory.** Same as Ancient History and Classical Civilization 325 (Topic 8), Classical Civilization 340 (Topic 8), and Middle Eastern Studies 342 (Topic 42). Explores the development of complex societies in ancient Greece by studying its prehistory through archaeology. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Archaeology of Greek Prehistory), 325 (Topic 8), Classical Civilization 340 (Topic: Archaeology of Greek Prehistory), 340 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic: Archaeology of Greek Prehistory), 321 (Topic 33), Middle Eastern Studies 320 (Topic: Archaeology of Greek Prehistory), 342 (Topic: Archaeology of Greek Prehistory), 342 (Topic 42), Persian 372 (Topic: Archaeology of Greek Prehistory).

**Topic 34: Sacred and Ceremonial Textiles.** Same as Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Religious Studies 358T, and Women's and Gender Studies 340 (Topic 57). Textiles and material objects indigenous to the Islamic world, and what they reveal about the culture of various Islamic societies. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Middle Eastern Languages and Cultures 321 (Topic: Sacred and Ceremonial Textiles), 321 (Topic 34), Religious Studies 358 (Topic 11), 358T, Textiles and Apparel 365 (Topic: Sacred and Ceremonial Textiles), Women's and Gender Studies 340 (Topic 57). Additional prerequisite: Upper-division standing.

**Topic 35: Persian Art: Past and Present.** Same as Islamic Studies 373 (Topic 16) and Middle Eastern Studies 342 (Topic 43). Only one of the following may be counted: Islamic Studies 373 (Topic: Persian Art: Past and Present), 373 (Topic 16), Middle Eastern Languages and Cultures 321 (Topic: Persian Art: Past and Present), 321 (Topic 35), Middle Eastern Studies 342 (Topic: Persian Art: Past and Present), 342 (Topic 43). Prerequisite: Upper-division standing.

**Topic 36: Graffiti and Poster Art in the Islamic World.** Same as Anthropology 324L (Topic 59), Islamic Studies 373 (Topic 17), Middle Eastern Studies 342 (Topic 44), Religious Studies 359C, and Women's and Gender Studies 340 (Topic 67). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Graffiti/Poster Art: Islm Wrld), 324L (Topic 59), Islamic Studies 373 (Topic: Graffiti/Poster Art: Islm Wrld), 373 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic: Graffiti/Poster Art: Islam World), 321 (Topic 36), Middle Eastern Studies 342 (Topic: Graffiti/Poster Art: Islam World), 342 (Topic 44), Religious Studies 358 (Topic: Graffiti/Poster Art: Islm Wrld), 358 (Topic 21), 359C, Women's and Gender Studies 340 (Topic: Graffiti/Poster Art: Islm Wrld), 340 (Topic 67). Additional prerequisite: Upper-division standing.

**Topic 37: Lost Languages and Decipherment.** Same as Ancient History and Classical Civilization 330 (Topic 4), Classical Civilization 348 (Topic 21), and Middle Eastern Studies 342 (Topic 45). Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Lost Languages & Decipherment), 330 (Topic 4), Classical Civilization 348 (Topic: Lost Languages & Decipherment), 348 (Topic 21), Linguistics 350 (Topic: Lost Languages & Decipherment), Middle Eastern Languages and Cultures 321 (Topic: Lost Languages & Decipherment), 321 (Topic 37), Middle Eastern Studies 342 (Topic: Lost Languages & Decipherment), 342 (Topic 45). Prerequisite: Upper-division standing.

**Topic 38: Comparative Jewish Literature: Israel, France, and the United States.** Same as Jewish Studies 363 (Topic 22) and Middle Eastern Studies 342 (Topic 38). Only one of the following may be counted: Jewish Studies 363 (Topic 22), Middle Eastern Languages and Cultures 321 (Topic 38), Middle Eastern Studies 342 (Topic 38). Additional prerequisite: Upper-division standing.

**Topic 40: Israel and Palestine: A Cultural Perspective.** Same as Comparative Literature 323 (Topic 64), Jewish Studies 363 (Topic 23), and Middle Eastern Studies 342 (Topic 56). Only one of the following may be counted: Comparative Literature 323 (Topic: Israel/Palestine: Cultrl Persp), 323 (Topic 64), Jewish Studies 363 (Topic: Israel/Palestine: Cultrl Persp), 363 (Topic 23), Middle Eastern Languages and Cultures 321 (Topic: Israel/Palestine: Cultrl Persp), 321 (Topic 40), Middle Eastern Studies 342 (Topic: Israel/Palestine: Cultrl Persp), 342 (Topic 56). Additional prerequisite: Upper-division standing.

### **MEL 321C. Iranian and Iranian-American Identity.**

Same as Comparative Literature 323 (Topic 63), Middle Eastern Studies 342 (Topic 62), and Women's and Gender Studies 340 (Topic 81). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Iran/Iranian-Amer Ident), 323 (Topic 63), Middle Eastern Languages and Cultures 321 (Topic:

Iran/Iranian-Amer Ident), 321C, Middle Eastern Studies 342 (Topic: Iran/Iranian-Amer Ident), 342 (Topic 62), Women's and Gender Studies 340 (Topic: Iran/Iranian-Amer Ident), 340 (Topic 81). Prerequisite: Upper-division standing.

### **MEL 321D. Debating Genesis.**

Same as Jewish Studies 363 (Topic 26), Middle Eastern Studies 342 (Topic 65), and Religious Studies 353M. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic: Debating Genesis), 363 (Topic 26), Middle Eastern Languages and Cultures 321 (Topic: Debating Genesis), 321D, Middle Eastern Studies 342 (Topic: Debating Genesis), 342 (Topic 65), Religious Studies 353 (Topic: Debating Genesis), 353M. Prerequisite: Upper-division standing.

### **MEL 321P. The Persian Epic and Popular Culture.**

Same as Middle Eastern Studies 342 (Topic 60). Three lecture hours a week for one semester. Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic: Persian Epic/Pop Culture), 321P, Middle Eastern Studies 342 (Topic: Persian Epic/Pop Culture), 342 (Topic 60). Prerequisite: Upper-division standing.

### **MEL 323. Engaging the Middle East.**

Same as Middle Eastern Studies 323C. Three lecture hours a week for one semester. Middle Eastern Languages and Cultures 323 and Middle Eastern Studies 323C may not both be counted. Prerequisite: Upper-division standing; Middle Eastern Languages and Cultures 301 or Middle Eastern Studies 301C.

### **MEL 358Q. Supervised Research.**

Supervised research experience in Middle Eastern languages, literatures and cultures. Individual instruction. May be repeated for credit. Prerequisite: Middle Eastern Languages and Cultures 301, and six hours of upper-division Arabic, Hebrew, Persian, or Turkish.

### **MEL 379. Conference Course.**

Supervised individual study of selected problems in Middle Eastern languages and cultures. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **MEL 679H. Honors Tutorial Course.**

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper on a literary or linguistic problem. Conference course for two semesters. Prerequisite: For 679HA, admission to the Middle Eastern Languages and Cultures Honors Program; for 679HB, Middle Eastern Languages and Cultures 679HA.

## **Graduate Courses**

### **MEL 380. Topics in Middle Eastern Cultures.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Gender, Clothing, and Identity in Muslim Societies.** Same as Middle Eastern Studies 386 (Topic 25). Three lecture hours a week for one semester. Only one of the following may be counted: Middle Eastern Languages and Cultures 380 (Topic 1), Middle Eastern Studies 381 (Topic: Gend/Cloth/Ident in Muslim Soc), 386 (Topic 25). Additional prerequisite: Graduate standing.

**Topic 2: Introduction to Islamic Studies.** Introduction to the academic field of Islamic Studies. Three lecture hours a week for one semester. Additional prerequisite: Graduate standing.

### **MEL 380C. Topics in Middle Eastern Languages.**

Advanced studies in Middle Eastern languages. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites may vary with the topic.

**Topic 1: Targumic Aramaic.** Examines Aramaic translations of the Hebrew bible that contain many exegetical deviations from the Hebrew text, and provide a glimpse of Jewish theology at the time of their composition. Additional prerequisite: Consent of instructor; some knowledge of Hebrew is recommended.

**Topic 2: Syriac.** Study of the eastern Aramaic dialect that was spoken in the ancient Near East until the Muslim occupation. Examines the use of the dialect as a vehicle for Christianity in the East; its use in poetry, science, and philosophy; and its influence on Arabic. Covers the essentials of Syriac grammar for the purpose of reading Syriac texts. Hebrew 380C (Topic 9: Syriac) and Middle Eastern Languages and Cultures 380C (Topic 2) may not both be counted. Additional prerequisite: Consent of instructor.

**Topic 3: Classical Ethiopic.** Study of the fourth-century language of the Semitic people who lived in what is now Ethiopia and Eritrea. Covers the alphabet and grammar needed for reading translations of the Bible and other texts. Additional prerequisite: Consent of instructor.

**Topic 4: Ugaritic.** Study of the West Semitic languages from the city of Ugarit in what is now Syria, which was spoken from the fourteenth through twelfth century BC. Covers the essentials of grammar needed for reading Ugaritic texts. Additional prerequisite: Consent of instructor.

### **MEL 381. Topics in Middle Eastern Literatures.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

### **MEL 382. Topics in Middle Eastern Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Teaching Middle Eastern Languages.** Additional prerequisite: Graduate standing and consent of instructor.

**Topic 2: Introduction to the Structure of Semitic Languages.** Covers the grammatical structure of a number of ancient and modern Semitic languages (such as Akkadian, Biblical Hebrew, Ethiopic, and Modern Aramaic) and of the family of languages as a whole. Additional prerequisite: Graduate standing and consent of instructor.

### **MEL 383. Topics in the Ancient Near East.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

### **MEL 383C. Current Issues in Hebrew Bible.**

Examines the issues that are current in one major area of Hebrew Bible scholarship. Three lecture hours a week for one semester. Only one of the following may be counted: Hebrew 380C (Topic: Hebrew Bible Doctoral Seminar I), Jewish Studies 383 (Topic: Hebrew Bible Doctoral Seminar III), Middle Eastern Languages and Cultures 383 (Topic: Hebrew Bible Doctoral Seminar III), 383C, 383 (Topic 1: Hebrew Bible Doctoral Seminar I), 383 (Topic 3: Hebrew Bible Doctoral Seminar III), Religious Studies 386H (Topic: Hebrew Bible Doctoral Seminar III). Prerequisite: Graduate standing and consent of instructor.

### **MEL 383D. Exegetical Seminar in Hebrew Bible.**

Examines a biblical book (e.g. Song of Songs) or subject (e.g. Jubilee) applying history, philology, literary theory, poetics, history of interpretation, and linguistics. Three lecture hours a week for one semester. Only one of the following may be counted: Hebrew 380C (Topic: Hebrew Bible Doctoral Seminar II), Middle Eastern Languages and Cultures 383 (Topic: Hebrew Bible Doctoral Seminar IV), 383 (Topic 2: Hebrew Bible Doctoral Seminar II), 383 (Topic 4: Hebrew Bible Doctoral Seminar IV), 383D. Prerequisite: Graduate standing and consent of instructor.

### **MEL 389. Conference Course in Middle Eastern Languages and Cultures.**

Supervised individual study of selected problems in Middle Eastern languages and cultures. The equivalent of three lectures a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, consent of the instructor and graduate adviser.

### **MEL 393. Comprehensive Examination Preparation.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, and consent of the instructor and graduate adviser.

### **MEL 194, 294, 394. Professional Development in Middle Eastern Languages and Cultures.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **MEL 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Middle Eastern languages and cultures and consent of the graduate adviser; for 698B, Middle Eastern Languages and Cultures 698A.

### **MEL 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Middle Eastern languages and cultures and consent of the graduate adviser.

### **MEL 398T. Supervised Teaching in Middle Eastern Languages and Cultures.**

Teaching under the close supervision of a faculty member; weekly group meetings with the instructor, individual consultation, and reports throughout the teaching period. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **MEL 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Middle Eastern Studies Courses**

## **Middle Eastern Studies: MES**

### **Lower-Division Courses**

#### **MES 301C. Gateway to the Middle East.**

Same as Middle Eastern Languages and Cultures 301. Three lecture hours a week for one semester. Middle Eastern Languages and Cultures 301 and Middle Eastern Studies 301C may not both be counted.

#### **MES 301J. The Ancient Middle East.**

Same as Ancient History and Classical Civilization 310 (Topic 3), History 306Q, and Middle Eastern Languages and Cultures 301J. Survey the history of the Middle East from the beginning of the Neolithic period (9000 BCE) through the invasion of the region by Alexander the Great in 332 BCE and into the pre-Islamic era. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic 3), History 306Q, Middle Eastern Languages and Cultures 301J, Middle Eastern Studies 301J.

#### **MES 301K. Introduction to the Middle East: Religious, Cultural, and Historical Foundations.**

Same as History 306K and Religious Studies 314K. A survey of the history and civilization of the Middle East from the sixth to the fourteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: History 306K, Middle Eastern Studies 301K, Religious Studies 314 (Topic: Intro M East: Rel/Cul/Hist Fnd), 314K.

#### **MES 301L. Introduction to the Middle East: Adjustment and Change in Modern Times.**

Same as Government 303D and History 306J. The responses of the societies of the Middle East and North Africa (Turkey, Iran, Afghanistan, Israel, and the Arab world) to Western cultural and political challenges, primarily since about 1800. Three lecture hours a week for one semester. Only one of the following may be counted: Government 303D, 314 (Topic 3), History 306J, 306N (Topic 5), Middle Eastern Studies 301L.

#### **MES 310. Topics in Middle Eastern Studies.**

Studies of areas and issues in the Middle East and North Africa. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 4: Social Transformation of Love and Relationships.** Same as Sociology 308L. Examination of the social, psychological, and spiritual perspectives toward the ideas of love and intimacy; how love and intimacy interact with rapid social, economic, and cultural change; and how the subsequent change transformed the social world and the meaning of love. Subjects include the aspects of self and identity; differentiation in the context of love in the modern age; the family and the individual; the impact of industrialization on private lives and the public order; gender, communication, love; intercultural love and intimacy; and personal choice and arranged marriages. Three lecture hours a week for one semester. Only one of the following may be counted: Middle Eastern Studies 310 (Topic: Social Transformation of Love and Relationships), 310 (Topic 4), Sociology 308 (Topic: Social Transformation of Love and Relationships), 308L.

**Topic 5: Introduction to Music in World Cultures.** Same as Music 303M. Exploration of practices, beliefs, and issues through the study of various musical genres in the regions of Asia, the Middle East, Africa, the Pacific, Europe, and the Americas. Three lecture hours a week for one semester, with additional hours to be arranged. Only one of the following may be counted: Asian Studies 303M, Middle Eastern Studies 310 (Topic: Introduction to Music In World Cultures), 310 (Topic 5), Music 303M.

**Topic 6: Jewish Civilization: Beginnings to 1492.** Same as History 306N (Topic 10), Jewish Studies 304M, and Religious Studies 313M. Introduction to the history, culture, and religion of the Jewish people from around 1000 BC to the end of the medieval period. Subjects may include ancient Israel, late Second Temple sectarianism, the rise of Christianity, rabbinic Judaism, medieval Jewish philosophy, Jewish mysticism, and Hebrew poetry. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Jewish Civilization I), 306N (Topic 10), Jewish Studies 304M, 311 (Topic: Jewish Civilization I), Middle Eastern Studies 310 (Topic: Jewish Civilization: Beginnings to 1492), 310 (Topic 6), Religious Studies 313 (Topic: Jewish Civilization I), 313M.

**Topic 8: Introduction to Jewish Studies.** Same as Anthropology 311D, Jewish Studies 301, and Religious Studies 313D. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: Jewish Studies: An Introduction), 311D, Jewish Studies 301, 311 (Topic: Jewish Studies: An Introduction), Middle Eastern Studies 310 (Topic: Jewish Studies: An Introduction), 310 (Topic 8), Religious Studies 313 (Topic: Jewish Studies: An Introduction), 313D.

### **MES 310C. Introduction to the Old Testament.**

Same as Core Texts and Ideas 305G, Jewish Studies 311 (Topic 4), and Religious Studies 313C. Introduction to the many interpretations of the Hebrew Bible (the Old Testament) and its meaning in the context of its historical and cultural setting in the ancient Near East. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 305G, Jewish Studies 311 (Topic 4), Middle Eastern Studies 310 (Topic 3), 310C, Religious Studies 313C.

### **MES 310N. Introduction to Modern North Africa.**

Same as History 306N (Topic 12) and Religious Studies 317N. Introduction to the major themes of North African history from the sixteenth century to the present. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Intro to Modern North Africa), 306N (Topic 12), Middle Eastern Studies 310 (Topic: Intro Modern North Africa), 310N, Religious Studies 317 (Topic: Intro Modern North Africa), 317N.

### **MES 310R. Introduction to Middle East Religions.**

Same as Islamic Studies 310R, Jewish Studies 310R, and Religious Studies 310R. Introduction to the religious landscape of the Middle East including the various expressions of Eastern Christianity, Islam, and Judaism as well as Zoroastrianism. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 310R, Jewish Studies 310R, Middle Eastern Studies 310R, Religious Studies 310R.

### **MES 311. The History of Israel.**

Same as History 311J and Jewish Studies 311 (Topic 7). An introduction to the history of Israel, from the emergence of the modern Zionist movement beginning in 1881 to the present. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: History of Israel), 311J, Jewish Studies 311 (Topic: History of Israel), 311 (Topic 7), Middle Eastern Studies 310 (Topic: History of Israel), 311.

### **MES 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Middle Eastern Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded to work in an exchange program; it may be counted as coursework taken

in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **MES 323C. Engaging the Middle East.**

Same as Middle Eastern Languages and Cultures 323. Three lecture hours a week for one semester. Middle Eastern Languages and Cultures 323 and Middle Eastern Studies 323C may not both be counted. Prerequisite: Upper-division standing; Middle Eastern Languages and Cultures 301 or Middle Eastern Studies 301C.

### **MES 127. Middle Eastern Cultural Exchange.**

Provides an opportunity for students to interact with peer groups in Middle Eastern countries in which Arabic, Hebrew, Persian, and Turkish are spoken. Students engage in a variety of cultural activities and correspond with peer groups via blogs and Internet discussion forums. One lecture hour a week for one semester. Offered on the pass/fail basis only. Prerequisite: Upper-division standing.

### **MES 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Middle Eastern Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **MES 331C. History of the Ottoman Empire.**

Same as History 331C. A survey of Ottoman society and culture and of the empire's place on the world scene. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **MES 334C. Music Cultures of the Middle East, Past and Present.**

Same as History 334C. A historical and ethnomusicological survey of the Arab, Turkish, and Persian music cultures. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **MES 341. Topics in the Middle East: Social Science.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 3: The Cities of the Middle East.** Same as Anthropology 324L (Topic 51) and Islamic Studies 373 (Topic 9). Anthropological and sociological analysis of space, with a special emphasis on urban theory and culture in the Middle East. Only one of the following may be counted: Anthropology 324L (Topic: Cities of the Middle East), 324L (Topic 51), Islamic Studies 373 (Topic: Cities of the Middle East), 373 (Topic 9), Middle Eastern Studies 322K (Topic: Cities of the Middle East), 341 (Topic 3), Urban Studies 354 (Topic: Cities of the Middle East), 354 (Topic 15).

**Topic 4: Development Communication.** Same as Radio-Television-Film 342 (Topic 6). Middle Eastern Studies 341 (Topic 4) and Radio-Television-Film 342 (Topic 6) may not both be counted.

**Topic 5: Arab-Israeli Politics.** Same as Government 320L. In-depth study of domestic, regional, and international factors involved in politics in the Middle East, including simulation of diplomatic interaction in the Arab-Israeli conflict. Government 320L and Middle Eastern Studies 341 (Topic 5) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 6: Negotiating Urbanization: Case Studies in Turkey.** Same as Urban Studies 354 (Topic 9). Examines local and transnational forces that have driven and continue to drive contemporary urbanization

in Turkey. Focuses on key issues that emerge in rapidly growing cities of the developing world, such as growing income inequality and socioeconomic exclusion, environmental challenges, and rising violence. Only one of the following may be counted: Middle Eastern Studies 326 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), 341 (Topic 6), Turkish 372 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), Urban Studies 354 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), 354 (Topic 9).

**Topic 7: Gender Politics in the Islamic World.** Same as Islamic Studies 373 (Topic 11), Religious Studies 358G, Sociology 336G, and Women's and Gender Studies 340 (Topic 44). Study of the Islamic world and major sociological concepts such as gender, social organizations, culture, and politics. Examines how culture is mediated by politics, resulting in diverse interpretations of Islam and in different policies with respect to women's rights. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 373 (Topic 11), Middle Eastern Studies 341 (Topic 7), Religious Studies 358 (Topic 8), 358G, Sociology 336G, Women's and Gender Studies 340 (Topic 44). Additional prerequisite: Upper-division standing.

**Topic 8: Multicultural Israel.** Same as Anthropology 322D and Jewish Studies 365C. Examines the complex social fabric that comprises contemporary Israeli society, and that shapes Israeli identity, practice and politics. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322D, 325L (Topic: Multicultural Israel), Jewish Studies 365 (Topic: Multicultural Israel), 365C, Middle Eastern Studies 341 (Topic: Multicultural Israel), 341 (Topic 8). Additional prerequisite: Upper division standing.

**Topic 9: Islam and Politics.** Same as Government 364C, Islamic Studies 373 (Topic 19), and Religious Studies 358C. An introduction to Islamic political thought. Three lecture hours a week for one semester. Only one of the following may be counted: Government 364C, 365N (Topic: Islam and Politics), Islamic Studies 373 (Topic: Islam and Politics), 373 (Topic 19), Middle Eastern Studies 341 (Topic: Islam and Politics), 341 (Topic 9), Religious Studies 358 (Topic: Islam and Politics), 358C. Additional prerequisite: Upper division standing.

**Topic 10: Cultural Geographies of Israel.** Same as Anthropology 322G and Jewish Studies 365D. Examines critical spatial theory, landscape phenomenology, histories of Zionist architecture and urban planning as applied to Israel from the Yishuv period to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322G, Jewish Studies 311 (Topic: Israel: Space/Place/Landscape), 365D, Middle Eastern Studies 341 (Topic 10). Additional prerequisite: Upper division standing.

**Topic 11: Rule of Law in the Middle East.** Same as Government 3660, Islamic Studies 373 (Topic 25), and Religious Studies 358L. Three lecture hours a week for one semester. Only one of the following may be counted: Government 365N (Topic: Rule of Law in the Mid East), 3660, Islamic Studies 373 (Topic: Rule of Law in the Mid East), 373 (Topic 25), Middle Eastern Studies 341 (Topic: Rule of Law in the Mid East), 341 (Topic 11), Religious Studies 358 (Topic: Rule of Law in the Mid East), 358L. Additional prerequisite: Upper-division standing.

#### **MES 342. Topics in the Middle East: Arts and Humanities.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Introduction to Arabic Literature.** Same as Comparative Literature 323 (Topic 13), Islamic Studies 373 (Topic 1), and Middle Eastern Languages and Cultures 321 (Topic 1). General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era. Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Arabic Literature), 323 (Topic 13), Islamic Studies 373 (Topic 1), Middle

Eastern Languages and Cultures 321 (Topic 1), Middle Eastern Studies 342 (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 2: Loyalty and Rebellion in Arabic Literature.** Same as Islamic Studies 373 (Topic 2) and Middle Eastern Languages and Cultures 321 (Topic 2). Only one of the following may be counted: Islamic Studies 373 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 2), Middle Eastern Studies 342 (Topic 2). Additional prerequisite: Upper-division standing.

**Topic 3: Memory and Identity in Ancient Arabia.** Same as Islamic Studies 373 (Topic 3) and Middle Eastern Languages and Cultures 321 (Topic 3). Only one of the following may be counted: Islamic Studies 373 (Topic 3), Middle Eastern Languages and Cultures 321 (Topic 3), Middle Eastern Studies 342 (Topic 3). Additional prerequisite: Upper-division standing.

**Topic 4: The Arabian Nights.** Same as Islamic Studies 373 (Topic 4) and Middle Eastern Languages and Cultures 321 (Topic 4). Only one of the following may be counted: Comparative Literature 323 (Topic: The Arabian Nights), Middle Eastern Languages and Cultures 321 (Topic 4), Religious Studies 358 (Topic: The Arabian Nights), Women's and Gender Studies 340 (Topic: The Arabian Nights). Additional prerequisite: Upper-division standing.

**Topic 5: Israel Through Its Literature.** Same as Comparative Literature 323 (Topic 15), Jewish Studies 363 (Topic 17), and Middle Eastern Languages and Cultures 321 (Topic 5). Only one of the following may be counted: Comparative Literature 323 (Topic: Introduction to Israeli Literature), Comparative Literature 323 (Topic 15), English 322 (Topic: Introduction to Israeli Literature), Jewish Studies 363 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic 5), Middle Eastern Studies 342 (Topic 5). Additional prerequisite: Upper-division standing.

**Topic 6: Love and the State in Contemporary Israeli Literature.** Same as Jewish Studies 363 (Topic 7) and Middle Eastern Languages and Cultures 321 (Topic 6). Only one of the following may be counted: Comparative Literature 323 (Topic: Love and State in Contemporary Israeli Literature), English 322 (Topic: Love and State in Contemporary Israeli Literature), Jewish Studies 363 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 6), Middle Eastern Studies 342 (Topic 6), Women's and Gender Studies 340 (Topic: Love and State in Contemporary Israeli Literature). Additional prerequisite: Upper-division standing.

**Topic 7: Postmodernist Israeli Literature.** Same as Jewish Studies 363 (Topic 19) and Middle Eastern Languages and Cultures 321 (Topic 7). Study of the first decades of Israeli literature. Themes include the establishment of a new state in the aftermath of the Holocaust, conflict between Israel and Arab nations, and conflict between Israelis and Palestinians. Only one of the following may be counted: Comparative Literature 323 (Topic: Postmodernist Israeli Literature), English 322 (Topic: Postmodernist Israeli Literature), Jewish Studies 363 (Topic 19), Middle Eastern Languages and Cultures 321 (Topic 7), 342 (Topic 7). Additional prerequisite: Upper-division standing.

**Topic 8: The Sacred and the Secular in Contemporary Jewish Literature.** Same as Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8), and Religious Studies 353L. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8), Middle Eastern Studies 342 (Topic 8), Religious Studies 353 (Topic 3), 353L. Additional prerequisite: Upper-division standing.

**Topic 9: Mizrahi Writing in Israel.** Same as Hebrew 346 (Topic 9) and Jewish Studies 363 (Topic 8). Only one of the following may be counted: Hebrew 346 (Topic 9), Jewish 363 (Topic 8), Middle Eastern Studies 342 (Topic 9). Additional prerequisite: Upper-division standing, and Hebrew 412L (or 312L) or 320L with a grade of at least C.

**Topic 10: Persian Literature, Past and Present.** Same as Middle Eastern Languages and Cultures 321 (Topic 10). Middle Eastern Languages and Cultures 321 (Topic 10) and Middle Eastern Studies

342 (Topic 10) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 11: Iranian Women Writers.** Same as Middle Eastern Languages and Cultures 321 (Topic 11) and Women's and Gender Studies 340 (Topic 10). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 11), Middle Eastern Studies 342 (Topic 11), WGS 340 (Topic 10). Additional prerequisite: Upper-division standing.

**Topic 13: Iranian Literature in Exile.** Same as Middle Eastern Languages and Cultures 321 (Topic 13). Middle Eastern Languages and Cultures 321 (Topic 13) and Middle Eastern Studies 342 (Topic 13) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 14: Iranian Film and Fiction.** Same as Middle Eastern Languages and Cultures 321 (Topic 14). Middle Eastern Languages and Cultures 321 (Topic 14) and Middle Eastern Studies 342 (Topic 14) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 16: The Qur'an.** Same as Comparative Literature 323 (Topic 37), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Religious Studies 325G, and Women's and Gender Studies 340 (Topic 54). The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upper-division standing.

**Topic 19: Self-Revelation in Women's Writing.** Same as African and African Diaspora Studies 330N, Comparative Literature 323 (Topic 4), and Women's and Gender Studies 340 (Topic 14). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330N, 372E (Topic 8), Comparative Literature 323 (Topic 4), Middle Eastern Studies 342 (Topic 19), Women's and Gender Studies 340 (Topic 14).

**Topic 20: Autobiography: A Modern Literary Species.** Same as Comparative Literature 323 (Topic 3). Only one of the following may be counted: Comparative Literature 323 (Topic 3), Middle Eastern Studies 342 (Topic 20), Women's and Gender Studies 340 (Topic: Autobiography: A Modern Literary Species). Additional prerequisite: Upper-division standing.

**Topic 22: Biblical Archaeology.** Only one of the following may be counted: Anthropology 324L (Topic: Biblical Archaeology), History 364G (Topic: Biblical Archaeology), Jewish Studies 361 (Topic: Biblical Archaeology), Middle Eastern Studies 342 (Topic 22), Religious Studies 353 (Topic: Biblical Archaeology). Prerequisite: Upper-division standing.

**Topic 23: The Dead Sea Scrolls.** Same as Ancient History and Classical Civilization 330 (Topic 1), History 364E, Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), and Religious Studies 353D. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic 1), History 364G (Topic 3), 364E, Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), Religious Studies 353D. Additional prerequisite: Upper-division standing.

**Topic 25: Politics of Court Literature.** Same as Islamic Studies 373 (Topic 6). Only one of the following may be counted: Arabic 360L (Topic 3), Comparative Literature 323 (Topic: Politics of Court Literature), Islamic Studies 373 (Topic 6), Middle Eastern Studies 342 (Topic 25). Additional prerequisite: Upper-division standing.

**Topic 26: Arab Women Poets.** Same as Arabic 360L (Topic 2) and Islamic Studies 373 (Topic 7). Only one of the following may be counted: Arabic 360L (Topic 2), Comparative Literature 323 (Topic:

Arab Women Poets), Islamic Studies 373 (Topic 7), Middle Eastern Studies 342 (Topic 26). Additional prerequisite: Upper-division standing, and Arabic 420L with a grade of at least C in each, or Arabic 531L with a grade of at least C.

**Topic 27: Islamic Law.** Same as Islamic Studies 340 (Topic 5), Middle Eastern Languages and Cultures 321 (Topic 19), Religious Studies 358K, and Women's and Gender Studies 340 (Topic 27). Designed to give students a foundation in the substantive teachings of the shariah, which comprises not only what we normally think of as law, but also ethics and etiquette. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic 5), Middle Eastern Languages and Cultures 321 (Topic: Islamic Law), 321 (Topic 19), Middle Eastern Studies 342 (Topic 27), Religious Studies 358 (Topic: Islamic Law), 358 (Topic 9), 358K, Women's and Gender Studies 340 (Topic 27). Additional prerequisite: Upper-division standing.

**Topic 28: Gender in North and West Africa.** Same as African and African Diaspora Studies 340S, Islamic Studies 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), and Women's and Gender Studies 340 (Topic 34). Examines gender discourses through North African and West African literary works by looking at the role(s) played by Islam and Christianity in the creation of the identities of African men and women. Includes discussion of the question of what gender is, and whether it is socially constructed. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340S, 372G (Topic 5), Islamic Studies 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 342 (Topic 28), Women's and Gender Studies 340 (Topic 34). Additional prerequisite: Upper-division standing.

**Topic 30: Iranian Culture.** Same as Islamic Studies 373 (Topic 10) and Middle Eastern Languages and Cultures 321 (Topic 20). Only one of the following may be counted: Islamic Studies 373 (Topic: Iranian Culture), Islamic Studies 373 (Topic 10), Middle Eastern Languages and Culture 321 (Topic: Iranian Culture), Middle Eastern Languages and Cultures (Topic 20), Middle Eastern Studies 342 (Topic: Iranian Culture), Middle Eastern Studies 342 (Topic 30), Persian 372 (Topic: Iranian Culture). Additional prerequisite: Upper-division standing.

**Topic 31: Palestine and the Palestinians: A Journey Through Time.** Same as Middle Eastern Languages and Cultures 321 (Topic 21). Three lecture hours per week for one semester. Only one of the following may be counted: Arabic 360L (Topic: Palestine and the Palestinians), 360L (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 21), Middle Eastern Studies 342 (Topic 31). Additional prerequisite: Upper-division standing.

**Topic 32: Women Filmmakers in the Middle East.** Same as Middle Eastern Languages and Cultures 321 (Topic 23) and Women's and Gender Studies 340 (Topic 55). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 23), Middle Eastern Studies 322K (Topic: Women Filmmakers in the Middle East), 342 (Topic 32), Turkish 372 (Topic: Women Filmmakers in the Middle East), Women's and Gender Studies 340 (Topic: Women Filmmakers in the Middle East), 340 (Topic 55). Additional prerequisite: Upper-division standing.

**Topic 33: Love in the East and West.** Same as Comparative Literature 323 (Topic 36), Core Texts and Ideas 343, and Middle Eastern Languages and Cultures 321 (Topic 25). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 36), Core Texts and Ideas 343, 345 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 25), Middle Eastern Studies 342 (Topic 33). Additional prerequisite: Upper-division standing.

**Topic 35: Islamic Theology.** Same as Core Texts and Ideas 357, Islamic Studies 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 27), and Religious Studies 358U. Three lecture hours a

week for one semester. Only one of the following may be counted: Core Texts and Ideas 375 (Topic 2), 357, Islamic Studies 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 27), Middle Eastern Studies 342 (Topic 35), Religious Studies 358 (Topic 14), 358U. Additional prerequisite: Upper-division standing.

**Topic 36: Rumi and the Persian Sufi Tradition.** Same as Islamic Studies 373 (Topic 12) and Middle Eastern Languages and Cultures 321 (Topic 28). Only one of the following may be counted: Comparative Literature 323 (Topic: Rumi & Persian Sufi Tradition), Islamic Studies 372 (Topic: Rumi & Persian Sufi Tradition), Islamic Studies 373 (Topic: Rumi & Persian Sufi Tradition), Islamic Studies 373 (Topic 12), Middle Eastern Languages and Cultures 321 (Topic: Rumi & Persian Sufi Tradition), Middle Eastern Languages and Cultures 321 (Topic 28), Middle Eastern Studies 321K (Topic: Rumi & Persian Sufi Tradition), Middle Eastern Studies 342 (Topic: Rumi & Persian Sufi Tradition), Middle Eastern Studies 342 (Topic 36), Persian 361 (Topic: Rumi & Persian Sufi Tradition), Religious Studies 358 (Topic: Rumi & Persian Sufi Tradition). Additional prerequisite: Upper-division standing.

**Topic 37: Biblical Prophecy.** Same as Core Texts and Ideas 354P, Jewish Studies 363 (Topic 28), and Religious Studies 353N. An introduction to the diversity of prophetic literature in the Old Testament, its historical development, social context, and Near Eastern parallels. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354P, 375 (Topic: Biblical Prophecy), Jewish Studies 363 (Topic: Biblical Prophecy), 363 (Topic 28), Middle Eastern Languages and Cultures 321 (Topic 24), Middle Eastern Studies 342 (Topic 37), Religious Studies 353 (Topic: Biblical Prophecy), 353N, 361 (Topic: Biblical Prophecy). Additional prerequisite: Upper-division standing.

**Topic 38: Comparative Jewish Literature: Israel, France, and the United States.** Same as Jewish Studies 363 (Topic 22) and Middle Eastern Languages and Cultures 321 (Topic 38). Only one of the following may be counted: Jewish Studies 363 (Topic 22), Middle Eastern Languages and Cultures 321 (Topic 38), Middle Eastern Studies 342 (Topic 38). Additional prerequisite: Upper-division standing.

**Topic 39: The Middle East in World Poetry.** Same as Islamic Studies 373 (Topic 14) and Middle Eastern Languages and Cultures 321 (Topic 30). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Middle East in World Poetry), Islamic Studies 373 (Topic: Middle East in World Poetry), 373 (Topic 14), Middle Eastern Languages and Cultures 321 (Topic: Middle East in World Poetry), 321 (Topic 30), Middle Eastern Studies 342 (Topic: Middle East in World Poetry), 342 (Topic 39). Additional prerequisite: Upper-division standing.

**Topic 40: Gender and Art in the Muslim World.** Same as Asian Studies 374D, Islamic Studies 373 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 31), Religious Studies 358W, and Women's and Gender Studies 340 (Topic 62). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 46), 374D, Islamic Studies 373 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 31), Middle Eastern Studies 342 (Topic 40), Religious Studies 358 (Topic 20), 358W, Women's and Gender Studies 340 (Topic 62). Additional prerequisite: Upper-division standing.

**Topic 42: Archaeology of Greek Prehistory.** Same as Ancient History and Classical Civilization 325 (Topic 8), Classical Civilization 340 (Topic 8), and Middle Eastern Languages and Cultures 321 (Topic 33). Explores the development of complex societies in ancient Greece by studying its prehistory through archaeology. Only one of the following may be counted: Ancient History and Classical Civilization 325 (Topic: Archaeology of Greek Prehistory), 325 (Topic 8), Classical Civilization 340 (Topic: Archaeology of Greek Prehistory), 340 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic: Archaeology of

Greek Prehistory), 321 (Topic 33), Middle Eastern Studies 320 (Topic: Archaeology of Greek Prehistory), 342 (Topic: Archaeology of Greek Prehistory), 342 (Topic 42), Persian 372 (Topic: Archaeology of Greek Prehistory).

**Topic 43: Persian Art: Past and Present.** Same as Islamic Studies 373 (Topic 16) and Middle Eastern Languages and Cultures 321 (Topic 35). Only one of the following may be counted: Islamic Studies 373 (Topic: Persian Art: Past and Present), 373 (Topic 16), Middle Eastern Languages and Cultures 321 (Topic: Persian Art: Past and Present), 321 (Topic 35), Middle Eastern Studies 342 (Topic: Persian Art: Past and Present), 342 (Topic 43). Prerequisite: Upper-division standing.

**Topic 44: Graffiti and Poster Art in the Islamic World.** Same as Anthropology 324L (Topic 59), Islamic Studies 373 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic 36), Religious Studies 359C, and Women's and Gender Studies 340 (Topic 67). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Graffiti/Poster Art: Islm Wrld), 324L (Topic 59), Islamic Studies 373 (Topic: Graffiti/Poster Art: Islm Wrld), 373 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic: Graffiti/Poster Art: Islam World), 321 (Topic 36), Middle Eastern Studies 342 (Topic: Graffiti/Poster Art: Islam World), 342 (Topic 44), Religious Studies 358 (Topic: Graffiti/Poster Art: Islm Wrld), 358 (Topic 21), 359C, Women's and Gender Studies 340 (Topic: Graffiti/Poster Art: Islm Wrld), 340 (Topic 67). Additional prerequisite: Upper-division standing.

**Topic 45: Lost Languages and Decipherment.** Same as Ancient History and Classical Civilization 330 (Topic 4), Classical Civilization 348 (Topic 21), and Middle Eastern Languages and Cultures 321 (Topic 37). Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Lost Languages & Decipherment), 330 (Topic 4), Classical Civilization 348 (Topic: Lost Languages & Decipherment), 348 (Topic 21), Linguistics 350 (Topic: Lost Languages & Decipherment), Middle Eastern Languages and Cultures 321 (Topic: Lost Languages & Decipherment), 321 (Topic 37), Middle Eastern Studies 342 (Topic: Lost Languages & Decipherment), 342 (Topic 45). Prerequisite: Upper-division standing.

**Topic 51: Daily Life in Ancient Egypt.** Same as African and African Diaspora Studies 340Q, Classical Civilization 348 (Topic 24), and Middle Eastern Languages and Cultures 321 (Topic 29). Delves into all areas of Egyptian daily life from the dawn of the dynasties to the age of Cleopatra. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340Q, 374C (Topic: Daily Life in Ancient Egypt), 374C (Topic 7), Classical Civilization 348 (Topic: Daily Life in Ancient Egypt), 348 (Topic 24), Middle Eastern Languages and Cultures 321 (Topic: Daily Life in Ancient Egypt), 321 (Topic 29), Middle Eastern Studies 342 (Topic: Daily Life in Ancient Egypt), 342 (Topic 51). Additional prerequisite: Upper-division standing.

**Topic 52: Abraham and Abrahamic Religions.** Same as Core Texts and Ideas 354, Jewish Studies 363D, and Religious Studies 353G. Examines the figure of Abraham as portrayed in the Bible and the reception of that portrayal in Judaism, Christianity, and Islam. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354, 375 (Topic: Abraham & Abrahamic Religions), Jewish Studies 363 (Topic: Abraham & Abrahamic Religions), 363D, Middle Eastern Studies 342 (Topic: Abraham & Abrahamic Religions), 342 (Topic: 52), Religious Studies 353 (Topic: Abraham & Abrahamic Religions), 353G. Additional prerequisite: Upper division standing.

**Topic 53: Angels, Demons, and Magic in Early Christianity.** Same as Religious Studies 353C. Examine angelology, demonology and magic influence on the lives of early Christians and Christianity. Three lecture hours a week for one semester. Only one of the following may be counted: Middle Eastern Studies 342 (Topic: Angel/Demon/Magic Early Cen), 342 (Topic 53), Religious Studies 353 (Topic: Angel/

Demon/Magic Early Cen), 353C. Additional prerequisite: Upper-division standing.

**Topic 54: Hermits, Monks, and Saints in Early Christianity.** Same as Classical Civilization 348C and Religious Studies 365D. Examine individual and communal forms of Christian monasticism from the first through fifth centuries CE. Explore the social, economic and religious factors that may have made a life of self-denial attractive to many early Christians and the role of authority in these movements. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Hermits, Monks, and Saints in Early Christianity), 348C, Middle Eastern Studies 342 (Topic: Hermits, Monks, and Saints in Early Christianity), 342 (Topic 54), Religious Studies 365 (Topic: Hermits, Monks, and Saints in Early Christianity), 365D. Additional prerequisite: Upper-division standing.

**Topic 55: Ancient Egypt.** Same as African and African Diaspora Studies 340G and Classical Civilization 348 (Topic 11). Discussion of Egypt's culture, language, and history from the prehistorical period (13,000 BC) to the New Kingdom (1069 BC). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340G, 374C (Topic: Ancient Egypt), Classical Civilization 348 (Topic 11), Middle Eastern Studies 342 (Topic: Ancient Egypt), 342 (Topic 55). Additional prerequisite: Upper-division standing.

**Topic 56: Israel and Palestine: A Cultural Perspective.** Same as Comparative Literature 323 (Topic 64), Jewish Studies 363 (Topic 23), and Middle Eastern Languages and Cultures 321 (Topic 40). Only one of the following may be counted: Comparative Literature 323 (Topic: Israel/Palestine: Cultrl Persp), 323 (Topic 64), Jewish Studies 363 (Topic: Israel/Palestine: Cultrl Persp), 363 (Topic 23), Middle Eastern Languages and Cultures 321 (Topic: Israel/Palestine: Cultrl Persp), 321 (Topic 40), Middle Eastern Studies 342 (Topic: Israel/Palestine: Cultrl Persp), 342 (Topic 56). Additional prerequisite: Upper-division standing.

**Topic 57: Divine Persuasion in Biblical Times and Place.** Same as Jewish Studies 363 (Topic 24) and Rhetoric and Writing 330E (Topic 13). Explore the use of persuasive strategies in an ancient and non-Western culture, that of the Hebrew Bible. Using rhetorical techniques, analyze three types of texts: narratives of interactions between ordinary people and God; interactions between people, God, and authorized prophets; and prayers in prose and poetry. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic: Persuasion Bible Time/Place), 363 (Topic 24), Middle Eastern Studies 342 (Topic: Persuasion Bible Time/Place), 342 (Topic 57), Rhetoric and Writing 330E (Topic: Persuasion Bible Time/Place), 330E (Topic 13). Additional prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

**Topic 58: Islamic Ethics.** Same as Islamic Studies 340 (Topic 9), Religious Studies 358R, and Women's and Gender Studies 340 (Topic 80). Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic: Islamic Ethics), 340 (Topic 9), Middle Eastern Studies 342 (Topic: Islamic Ethics), 342 (Topic 58), Religious Studies 358 (Topic: Islamic Ethics), 358R, Women's and Gender Studies 340 (Topic: Islamic Ethics), 340 (Topic 80). Additional prerequisite: Upper-division standing.

**Topic 59: Classic Lyric Poems.** Same as Comparative Literature 323 (Topic 61). Only one of the following may be counted: Comparative Literature 323 (Topic: Classic Lyric Poems), 323 (Topic 61), Middle Eastern Studies 342 (Topic: Classic Lyric Poems), 342 (Topic 59). Additional prerequisite: Upper-division standing.

**Topic 60: The Persian Epic and Popular Culture.** Same as Middle Eastern Languages and Cultures 321P. Three lecture hours a week for one semester. Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic: Persian Epic/Pop Culture), 321P, Middle Eastern Studies 342 (Topic: Persian Epic/

Pop Culture), 342 (Topic 60). Additional prerequisite: Upper-division standing.

**Topic 61: Forugh Farrokhzad and Her Poetry.** Same as Comparative Literature 323 (Topic 62) and Women's and Gender Studies 340 (Topic 79). Only one of the following may be counted: Comparative Literature 323 (Topic: Forugh Farrokhzad/Her Ptry), 323 (Topic 62), Middle Eastern Languages and Cultures 321 (Topic: Forugh Farrokhzad/Her Ptry), Middle Eastern Studies 342 (Topic: Forugh Farrokhzad/Her Ptry), 342 (Topic 61), Women's and Gender Studies 340 (Topic: Forugh Farrokhzad/Her Ptry), 340 (Topic 79). Additional prerequisite: Upper-division standing.

**Topic 62: Iranian and Iranian-American Identity.** Same as Comparative Literature 323 (Topic 63), Middle Eastern Languages and Cultures 321C, and Women's and Gender Studies 340 (Topic 81). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Iran/Iranian-Amer Ident), 323 (Topic 63), Middle Eastern Languages and Cultures 321 (Topic: Iran/Iranian-Amer Ident), 321C, Middle Eastern Studies 342 (Topic: Iran/Iranian-Amer Ident), 342 (Topic 62), Women's and Gender Studies 340 (Topic: Iran/Iranian-Amer Ident), 340 (Topic 81). Additional prerequisite: Upper-division standing.

**Topic 63: Twentieth-Century Persian Literature.** Same as Comparative Literature 323 (Topic 66). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: 20th Cen Persian Literature), 323 (Topic 66), Middle Eastern Studies 342 (Topic: 20th Cen Persian Literature), 342 (Topic 63). Additional prerequisite: Upper-division standing.

**Topic 64: Youth and Violence in the Middle East and Eurasia.** Same as Comparative Literature 323 (Topic 65) and Russian, East European, and Eurasian Studies 325 (Topic 42). Only one of the following may be counted: Comparative Literature 323 (Topic: Youth/Violence Mid East/Eur), 323 (Topic 65), Middle Eastern Languages and Cultures 321 (Topic: Youth/Violence Mid East/Eur), Middle Eastern Studies 342 (Topic: Youth/Violence Mid East/Eur), 342 (Topic 64), Russian, East European, and Eurasian Studies 325 (Topic: Youth/Violence Mid East/Eur), 325 (Topic 42). Additional prerequisite: Upper-division standing.

**Topic 65: Debating Genesis.** Same as Jewish Studies 363 (Topic 26), Middle Eastern Languages and Cultures 321D, and Religious Studies 353M. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic: Debating Genesis), 363 (Topic 26), Middle Eastern Languages and Cultures 321 (Topic: Debating Genesis), 321D, Middle Eastern Studies 342 (Topic: Debating Genesis), 342 (Topic 65), Religious Studies 353 (Topic: Debating Genesis), 353M. Additional prerequisite: Upper-division standing.

**Topic 66: Law and Justice in the Bible.** Same as Core Texts and Ideas 354L, Jewish Studies 363 (Topic 30), and Religious Studies 353K. Examine the legal traditions of the Torah (Pentateuch) and what they reveal about the practice of law and justice in ancient Israel and the wider biblical world. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354L, Jewish Studies 363 (Topic 30), Middle Eastern Studies 342 (Topic: Law/Justice in the Bible), 342 (Topic 66), Religious Studies 353 (Topic: Law/Justice in the Bible), 353K. Additional prerequisite: Upper-division standing.

**Topic 67: The Book of Job.** Same as Core Texts and Ideas 354J, Jewish Studies 363 (Topic 29), and Religious Studies 365J. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354J, 375 (Topic: The Book of Job), Jewish Studies 363 (Topic: The Book of Job), 363 (Topic 29), Middle Eastern Studies 342 (Topic: The Book of Job), 342 (Topic 67), Religious Studies 361 (Topic: The Book of Job), 365 (Topic: The Book of Job), 365J. Additional prerequisite: Upper-division standing.

**Topic 68: The Five Books of Moses.** Same as Core Texts and Ideas 354F, Jewish Studies 364 (Topic 15), and Religious Studies 353R.

Study the socio-historical circumstances that gave shape to the first five books of the Bible: Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. Examine how these five books achieved the status of sacred literature. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354F, 375 (Topic: The Five Books of Moses), Jewish Studies 364 (Topic: The Five Books of Moses), 364 (Topic 15), Middle Eastern Studies 342 (Topic: The Five Books of Moses), 342 (Topic 68), Religious Studies 353 (Topic: The Five Books of Moses), 353R, 361 (Topic: The Five Books of Moses). Additional prerequisite: Upper-division standing.

### **MES 342S. Sufism: Islamic Thought and Spirituality.**

Same as Asian Studies 340Q, History 339S, and Religious Studies 358I. Explore Sufism and other Islamic mystical traditions that color cultural milieus spanning four continents and fourteen centuries. Focus on the historical developments in the Islamic theosophical tradition, as well as the relationship between Sufism and poetics, colonialism, and post-colonial resistance movements. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic 8), 340Q, 361 (Topic: Sufism and Islam Mysticism), History 339S, 366N (Topic: Sufism and Islam Mysticism), Islamic Studies 340 (Topic 4), Middle Eastern Studies 342 (Topic: Sufism and Islam Mysticism), 342 (Topic 24), 342S, Religious Studies 358 (Topic 4), 358I, 361 (Topic: Sufism and Islam Mysticism). Prerequisite: Upper-division standing.

### **MES 343. Topics in the Middle East: History.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Modern Egypt: A History.** Same as History 334E and Islamic Studies 373 (Topic 5). Critically examines the social, political, and intellectual dynamics that shaped the different forms of political community, economic organization, and public culture over the past century. Covers colonialism, liberalism, Arab socialism, authoritarian capitalism, and Islamic republicanism. Three lecture hours a week for one semester. Only one of the following may be counted: History 334E, History 364G (Topic: Modern Egypt: A History), Islamic Studies 372 (Topic: Modern Egypt: A History), 373 (Topic 5), Middle Eastern Studies 343 (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 2: Re-forming the Arab East, 1914-Present.** Same as History 331R. Introduction to the history of the Middle East in the twentieth century. Examines forces that transformed the area from a relatively peaceful region to a radicalized environment. Explores colonialism, nationalism, secular modernism, impact of Zionism, rise of political Islam, status of women, and the oil revolution. Only one of the following may be counted: History 331R, History 364G (Topic: Re-forming the Arab East), Middle Eastern Studies 343 (Topic 2). Additional prerequisite: Upper-division standing.

**Topic 3: History of Iran to 1800.** Same as History 331G. A survey of the social, economic, and religious components unique to Iran from the pre-Islamic empire of the Achaemenids through the development of Iran as a medieval and premodern Islamic state. History 331G and Middle Eastern Studies 343 (Topic 3) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 4: Islamic Spain and North Africa to 1492.** Same as History 375D and Religious Studies 345. An introduction to the impact of Islam on Spain and North Africa, with emphasis on social, economic, and cultural development. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Islamic Spain and North Africa to 1492), History 375D, Islamic Studies 373 (Topic: Islamic Spain and North Africa to 1492), Middle Eastern Studies 343 (Topic 4), Religious Studies 345, 363 (Topic: Islamic Spain and North Africa to 1492). Additional prerequisite: Upper-division standing.

**Topic 5: Medieval Islam: Faith and History.** Same as History 350L (Topic 34) and Religious Studies 358E. Three lecture hours a week for

one semester. Only one of the following may be counted: History 350L (Topic 34), Middle Eastern Studies 343 (Topic 5), Religious Studies 358 (Topic 2), 358E. Additional prerequisite: Upper-division standing.  
**Topic 6: Modern Iran.** Same as History 331L and Islamic Studies 373 (Topic 22). Explore the development of modern Iran; special attention is given to the impact of the West, the constitutional movement, nationalism, the oil crisis, and the Islamic Revolution of 1979. Three lecture hours a week for one semester. Only one of the following may be counted: History 331L, Islamic Studies 373 (Topic: Modern Iran), 373 (Topic: 22), Middle Eastern Studies 343 (Topic: 6). Additional prerequisite: Upper-division standing.

**Topic 7: History of the Pilgrimage to Mecca, Hajj.** Same as History 367E and Religious Studies 358P. Survey of the Hajj, Islam's major pilgrimage to Mecca and the nearby Holy Places. It will examine the Islamic pilgrimage from its beginnings in the seventh century C.E. through today. Three lecture hours a week for one semester. Only one of the following may be counted: History 364G (Topic: History of the Pilgrimage to Mecca, Hajj), 364G (Topic 14), 367E, Middle Eastern Studies 343 (Topic: History of the Pilgrimage to Mecca), 343 (Topic 7), Religious Studies 358 (Topic: History of the Pilgrimage to Mecca), 358 (Topic 24), 358P. Additional prerequisite: Upper-division standing.

**Topic 10: Origins of Monotheism.** Same as Jewish Studies 364 (Topic 13) and Religious Studies 358O. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 364 (Topic: Origins of Monotheism), 364 (Topic 13), Middle Eastern Studies 343 (Topic: Origins of Monotheism), 343 (Topic 10), Religious Studies 358 (Topic: Origins of Monotheism), 358O. Additional prerequisite: Upper-division standing.

**Topic 11: Medieval Middle East History in One Hundred Objects.** Same as Art History 328L, History 339Q, and Islamic Studies 373 (Topic 21). Survey the history of the medieval Middle East, from the period of Late Antiquity (in the seventh century) to the rise of early modern empires of the Safavids, Ottomans, and Mughals (in the seventeenth century), through close examination of the meaning and significance of 100 objects. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328L, 363 (Topic: Mid East Hist in 100 Objects), History 339Q, 364G (Topic: Mid East Hist in 100 Objects), Islamic Studies 373 (Topic: Mid East Hist in 100 Objects), 373 (Topic 21), Middle Eastern Studies 343 (Topic: Mid East Hist in 100 Objects), 343 (Topic 11). Additional prerequisite: Upper-division standing.

**Topic 12: Modern Middle East History in One Hundred Objects.** Same as Art History 328M, History 343E, and Islamic Studies 373 (Topic 23). Survey the history of the medieval Middle East, from 1500 to the present, through close examination of the meaning and significance of 100 objects. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328M, 366P (Topic: Mod Mid East In 100 Objects), History 343E, 364G (Topic: Mod Mid East In 100 Objects), Islamic Studies 373 (Topic: Mod Mid East In 100 Objects), 373 (Topic 23), Middle Eastern Studies 343 (Topic: Mod Mid East In 100 Objects), 343 (Topic 12). Additional prerequisite: Upper-division standing.

**Topic 13: Arabs and Vikings: Art and Culture.** Same as Art History 328N and German, Scandinavian, and Dutch Studies 362F. Explore the art and culture of the global Middle Ages through close examination of recent films, popular and academic publications, and works of art and architecture that reveal the interconnection between the European and the Islamic worlds. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328N, 361L (Topic: Arabs/Vikings Art Culture), German, Scandinavian, and Dutch Studies 360 (Topic: Arabs/Vikings Art Culture) 362F, Middle Eastern Studies 343 (Topic: Arabs/Vikings Art Culture), 343 (Topic 13). Additional prerequisite: Upper-division standing.

**Topic 15: Africa and Rome.** Same as African and African Diaspora Studies 340U, Classical Civilization 348P, and History 321J. Explore

the history of Roman Africa with emphasis on what is now Tunisia and northern Algeria. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340U, 370 (Topic: Africa and Rome), 374C (Topic: Africa and Rome), Ancient History and Classical Civilization 330 (Topic: Africa and Rome), Classical Civilization 348 (Topic: Africa and Rome), 348P, History 321J, 364G (Topic: Africa and Rome), 366N (Topic: Africa and Rome), Middle Eastern Studies 343 (Topic: Africa and Rome), 343 (Topic 15). Additional prerequisite: Upper-division standing.

**Topic 16: Jews: Nation or People.** Same as History 366D and Jewish Studies 364 (Topic 16). Three lecture hours a week for one semester. Only one of the following may be counted: History 366D, 366N (Topic: Jews: Nation or People?), Jewish Studies 364 (Topic: Jews: Nation or People?), 364 (Topic 16), Middle Eastern Studies 343 (Topic: Jews: Nation or People?), 343 (Topic 16). Additional prerequisite: Upper-division standing

**Topic 17: Restitution and Restorative Justice after the Holocaust.** Same as European Studies 346 (Topic 35), History 366E, and Jewish Studies 364 (Topic 17). Examine attempts to find a measure of justice after the Holocaust. Explore themes of human rights and international law. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Holocaust/Restitun/Justice), 346 (Topic 35), History 366E, 366N (Topic: Holocaust/Restitun/Justice), Jewish Studies 364 (Topic: Holocaust/Restitun/Justice), 364 (Topic 17), Middle Eastern Studies 343 (Topic: Holocaust/Restitun/Justice), 343 (Topic 17). Additional prerequisite: Upper-division standing.

**Topic 20: Islam in the Early Modern World: Religion and Culture.** Same as History 367S, Islamic Studies 373 (Topic 20), and Religious Studies 359D. Examine a history of the religious and cultural development across the Islamic world between the thirteenth and eighteenth centuries, stemming from the rise of the Mongols and the end of the caliphate. Explore the early modern Muslim empires of the Ottomans, Safavids, and the Mughals. Three lecture hours a week for one semester. Only one of the following may be counted: History 364G (Topic: Islam Early Mod World:Rel/Cult), 367S, Islamic Studies 372 (Topic: Islam Early Mod World:Rel/Cult), 373 (Topic 20), Middle Eastern Studies 343 (Topic: Islam Early Mod World:Rel/Cult), 343 (Topic 20), Religious Studies 358 (Topic: Islam Early Mod World:Rel/Cult), 358 (Topic 22), 359D. Additional prerequisite: Upper-division standing.

**Topic 21: Transnational Asia: From the Middle East to the Far East.** Same as Asian Studies 361R and History 343C. Examine how various groups of people understood, experienced, and imagined concepts such as "the East" and "Asia" with a primary focus on the nineteenth and twentieth centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Transnational Asia), 361R, History 343C, Middle Eastern Studies 343 (Topic: Transnational Asia), 343 (Topic 21). Additional prerequisite: Upper-division standing.

### **MES 351. Mediterranean Crossroads Seminar.**

Reading and discussion about the lands, cultures, and societies of the eastern Mediterranean from a variety of disciplinary perspectives. Students prepare to study in the Middle East (in Middle Eastern Studies 352) and begin work on their individual research projects. Three lecture hours a week for one semester. Offered in the spring semester only. Prerequisite: Upper-division standing and consent of instructor.

### **MES 352. Mediterranean Crossroads Study Abroad Seminar.**

Students study and conduct research in the Middle East. The equivalent of three lecture hours a week for one semester. Offered in the summer session only. Prerequisite: Middle Eastern Studies 351.

### **MES 353. Mediterranean Crossroads Conference Course.**

Under supervision of a faculty member, students complete their research projects following participation in Middle Eastern Studies 352. Conference course. Offered in the fall semester only. Prerequisite: Middle Eastern Studies 352.

### **MES 360. Conference Course.**

Supervised individual research, discussion, and writing of papers about various general and specialized Middle Eastern subjects. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **MES 370. Practicum: Internships in Applied Middle Eastern Studies.**

Research and staff experience working in an appropriate agency or business. At least six but no more than nine hours of work a week for one semester. May not be repeated for credit. Prerequisite: Completion of at least seventy semester hours of coursework, including twelve hours of Middle Eastern studies, and consent of the undergraduate adviser.

### **MES 679H. Honors Tutorial Course.**

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper on a special topic in middle eastern studies, to be completed during the second semester. Conference course for two semesters. Prerequisite: For 679HA, admission to the Middle Eastern Studies Honors Program; for 679HB, Middle Eastern Studies 679HA.

## **Graduate Courses**

### **MES 380. International Business Fellows Seminar.**

Same as Asian Studies 391 (Topic 6), Latin American Studies 381 (Topic 8), and Russian, East European, and Eurasian Studies 380. Multidisciplinary seminar for students in area studies, business administration, law, and public policy. The faculty includes both academics and business leaders. Only one of the following may be counted: Asian Studies 391 (Topic 6), International Business 395 (Topic: International Business Fellows Seminar), Latin American Studies 381 (Topic 8), Middle Eastern Studies 380, Public Affairs 388K (Topic: International Business Fellows Seminar), Russian, East European, and Eurasian Studies 380.

### **MES 381. Seminar in Middle Eastern Civilizations and Cultures.**

Advanced studies of various aspects of the civilizations and cultures of the Middle East and North Africa. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

#### **Topic 11: Regional Geography of the Middle East and North Africa.**

Same as Geography 385 (Topic 5: The Middle East and North Africa). Topics include developmental activity and spatial change in the Middle East, comparative regional studies.

**Topic 22: Politics of the Middle East and North Africa.** Same as Government 390L (Topic 4: Politics of the Middle East and North Africa). Readings and research on the political systems of the Arab world, Israel, Turkey, Iran, and Afghanistan. Precise topics vary.

Additional prerequisite: Twenty-four semester hours of coursework in government or related fields, and consent of the graduate adviser.

**Topic 26: Turkic Cultures and Languages in Central Asia.** Same as Linguistics 396 (Topic 4: Turkic Cultures and Languages in Central Asia). Additional prerequisite: Consent of instructor.

**Topic 29: Environment and Development in the Middle East.**

**Topic 30: Language and Politics in Language Planning.** Same as Curriculum and Instruction 385G (Topic 7). Additional prerequisite: Consent of instructor.

**Topic 33: Translation: Theory, History, and Practice.** Additional prerequisite: Consent of instructor.

**Topic 37: Intellectual History of Indo-Iranian Islam.** Same as Asian Studies 390 (Topic 6) and History 388K (Topic 2).

**Topic 38: Music Cultures of the Middle East: Past and Present.**

**Topic 39: Translating Arabic Texts.** Same as Arabic 380C (Topic 8: Translating Arabic Texts). Only one of the following may be counted: Arabic 360L (Topic 4: Translating Arabic Texts), 380C (Topic 8), Middle Eastern Studies 381 (Topic 39).

**Topic 41: Gender, Clothing, and Identity in Muslim Society.**

### **MES 383. Internships in Applied Middle Eastern Studies.**

Students conduct research and participate in other work in an appropriate agency or business. At least nine but no more than twelve hours of fieldwork a week for one semester. May not be repeated for credit. Prerequisite: Graduate standing and consent of the graduate adviser.

### **MES 384. Topics in the Middle East: Social Science.**

Advanced studies of various aspects of social sciences in the Middle East. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: Middle Eastern Studies 381, 384, 385, 386. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of the instructor and graduate advisor.

**Topic 6: Cities and Citizenship.**

**Topic 7: Culture, History, and Power.**

**Topic 8: Gender and Development.**

**Topic 10: The Military in Politics.**

**Topic 11: Nationalism and Gender.**

**Topic 12: Comparative Middle Eastern Law.** Exploration of legal structures of the modern Middle East from a comparative approach. Three lecture hours a week for one semester. Middle Eastern Studies 384 (Topic: Comparative Middle East Law) and 384 (Topic 12) may not both be counted.

### **MES 385. Topics in the Middle East: History.**

Advanced studies of various aspects of history in the Middle East. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: Middle Eastern Studies 381, 384, 385, 386. May be repeated for credit when the topics vary. Prerequisite: Graduate standing. Additional prerequisites may vary with the topic.

**Topic 3: Islamic Historiography.**

**Topic 4: Islamic Revolution of Iran.** Additional prerequisite: Consent of instructor.

**Topic 5: Modern Iranian History and Historiography.**

**Topic 6: Shi'ite Religious and Political Ideologies.**

**Topic 7: Women in Islamic Societies.** Same as Asian Studies 391 (Topic 7: Women in Islamic Societies) and History 382N (Topic 2: Women in Islamic Societies). Only one of the following may be counted: Asian Studies 391 (Topic 7), History 382N (Topic 2), Middle Eastern Studies 385 (Topic 7).

**Topic 9: Method and Theory in Middle Eastern Studies.**

**Topic 10: Modern Arab Renaissance: An Inquiry.**

**Topic 11: State and Society in the Middle East.**

**Topic 12: European Imperialism: British Empire.** Same as Asian Studies 391 (Topic 3) and History 380L (Topic 1). Study of the British empire in the Middle East, Asia and Africa. Only one of the following may be counted: Asian Studies 391 (Topic 3), History 380L (Topic 1), Middle Eastern Studies 385 (Topic 12). Additional prerequisite: Graduate standing.

### **MES 386. Topics in the Middle East: Arts and Humanities.**

Advanced studies of various aspects of the arts and humanities in the Middle East. Three lecture hours a week for one semester. Only one of the following may be counted unless the topics vary: Middle Eastern Studies 381, 384, 385, 386. May be repeated for credit when the topics vary. Prerequisite: Graduate standing. Additional prerequisites may vary with the topic.

**Topic 2: Iranian Film and Fiction.** Same as Persian 384C (Topic 10). Middle Eastern Studies 386 (Topic 2) and Persian 384C (Topic 10) may not both be counted.

**Topic 5: Theory and Practice in Literary Translation.**

**Topic 7: Arab Women Poets.**

**Topic 9: Classical Arabic Ahkbar.**

**Topic 11: Islamic Ornament.**

**Topic 12: Islamic Studies: Disciplinary Introduction.**

**Topic 14: Mizrahi Writing in Israel.**

**Topic 15: Post-Zionist Perspectives in Israeli Literature.**

**Topic 16: Readings in Contemporary Persian Political Writings.**

**Topic 18: Seminar in Music, Gender, and Sexuality.**

**Topic 19: Women in Scripture.**

**Topic 23: Late Ottoman State and Society.** Study of state and society in the late Ottoman Empire (c. 1700-1922), focusing on social and economic life, religion, law, government, ideology, arts, and sciences. Three lecture hours a week for one semester. Middle Eastern Studies 386 (Topic: Late Ottoman State & Society) and 386 (Topic 23) may not both be counted. Additional prerequisite: Graduate standing.

**Topic 24: Islamic Feminism.** Exploration of the idea, history, figures, and writings of Islamic feminism, covering the 20th and 21st century. Three lecture hours a week for one semester. Middle Eastern Studies 386 (Topic: Islamic Feminism) and 386 (Topic 24) may not both be counted.

**Topic 25: Gender, Clothing, and Identity in Muslim Societies.** Same as Middle Eastern Languages and Cultures 380 (Topic 1). Three lecture hours a week for one semester. Only one of the following may be counted: Middle Eastern Languages and Cultures 380 (Topic 1), Middle Eastern Studies 381 (Topic: Gend/Cloth/Ident in Muslim Soc), 386 (Topic 25). Additional prerequisite: Graduate standing.

### **MES 389. Conference Course.**

Supervised individual study of selected problems in Middle Eastern Studies. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, consent of the instructor and graduate adviser.

### **MES 390M. Applied Methods and Practice in Middle Eastern Studies.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **MES 194, 294, 394. Professional Development in Middle Eastern Studies.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **MES 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Middle Eastern studies and consent of the graduate adviser; for 698B, Middle Eastern Studies 698A.

### **MES 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Middle Eastern studies and consent of the graduate adviser.

### **MES 398T. Supervised Teaching in Middle Eastern Studies.**

Teaching under the close supervision of a faculty member; weekly group meetings with the instructor, individual consultation, and reports throughout the teaching period. Three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant or assistant instructor.

## **Professional Courses**

# **Military Science Courses**

## **Military Science: M S**

### **Lower-Division Courses**

#### **M S 000. Leadership Laboratory.**

Open only to students in associated military science courses. Leadership responsibilities for planning, coordination, execution, and evaluation of training and other activities. Self-confidence and team-building leadership skills that can be applied throughout life. One and one-half laboratory hours a week for one semester. Required of all military science students. Prerequisite: Concurrent enrollment in another military science course.

#### **M S 304. American Military History: 1775 to Present.**

Covers development of American Profession of Arms from a "dual military tradition" evaluating military leadership at the tactical, operational, and strategic levels of war. Explores ways in which Industrial Revolution transformed the United States and other societies organized armed violence. Three lecture hours a week for one semester.

#### **M S 209. Basic Military Science I-A.**

Two lecture hours and three laboratory hours a week for one semester. Military Science 101, 201 and 209 may not both be counted. Prerequisite: Concurrent Enrollment in Military Science 000.

#### **M S 209K. Basic Military Science I-B.**

Two lecture hours and three laboratory hours a week for one semester. Military Science 103, 203 and 209K may not both be counted. Prerequisite: Concurrent enrollment in Military Science 000.

#### **M S 219. Basic Military Science II-A.**

Two lecture hours and three laboratory hours a week for one semester. Military Science 210 and 219 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in Military Science 000.

#### **M S 219K. Basic Military Science II-B.**

Two lecture hours and three laboratory hours a week for one semester. Military Science 212 and 219K may not both be counted. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in Military Science 000.

### **Upper-Division Courses**

#### **M S 329. Advanced Military Science III-A.**

Three lecture hours a week for one semester. Military Science 320 and 329 may not both be counted. Offered on the letter-grade basis only.

Prerequisite: Concurrent enrollment in Military Science 000 and approval of departmental representative.

#### **M S 329K. Advanced Military Science III-B.**

Three lecture hours and three laboratory hours a week for one semester. Military Science 320K and 329K may not both be counted. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in Military Science 000 and approval of departmental representative.

#### **M S 339. Advanced Military Science IV-A.**

Three lecture hours and two laboratory hours a week for one semester. Military Science 339 and 375 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in Military Science 000 and approval of departmental representative.

#### **M S 339K. Advanced Military Science IV-B.**

Three lecture hours a week for one semester. Military Science 339K and 375K may not both be counted. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in Military Science 000 and approval of departmental representative.

#### **M S 379. Advanced Military Science V-A.**

Advanced study of planning, executing, and assessing complex operations. Composed primarily of independent study, cadets are given opportunities to plan and execute events, assess risk, make ethical decisions, and lead fellow ROTC cadets. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in Military Science 000.

#### **M S 379K. Advanced Military Science V-B.**

Advanced study of planning, executing, and assessing complex operations. Composed primarily of independent study, cadets are given opportunities to plan and execute events, assess risk, make ethical decisions, and lead fellow ROTC cadets. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in Military Science 000.

## **Graduate Courses**

### **Professional Courses**

# **Molecular Biology Courses**

## **Molecular Biology: MOL**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **MOL 380. Advanced Readings in Molecular Biology.**

Individual instruction in the literature of molecular biology. Individual instruction. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

#### **MOL 080M. Dual MD/PhD Program with UT Medical Branch.**

Preclinical medical study at the University of Texas Medical Branch at Galveston. May not be taken concurrently with another course at the University of Texas at Austin. Prerequisite: Graduate standing and admission to the MD/PhD dual degree program in cell and molecular biology.

#### **MOL 190C, 290C, 390C. Seminar in Molecular Biology.**

Lectures and discussions on current topics in molecular biology. One, two, or three lecture hours a week for one semester. May be repeated for

credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Seminar in Molecular Biology I.** Students read, present, and discuss current research papers based on speakers for the Institute for Cellular and Molecular Biology weekly seminar series. Students also will present short talks on their the research from one of their laboratory rotations.

**Topic 2: Seminar in Molecular Biology II.** Students write a mock grant proposal with their principle investigator and present a practice part one preliminary exam talk based on the proposal.

**Topic 3: Seminar in Molecular Biology III.** Students present a detailed seminar on their thesis research.

### **MOL 192, 292, 392, 492, 592, 692, 792, 892, 992. Research Problems.**

One lecture hour a week for one semester, with additional laboratory hours. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **MOL 195. Molecular Biology Conference Course.**

Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **MOL 395F. Genetics.**

Same as Biology 395F and Chemistry 395F. Basic principles of Mendelian and molecular genetics, and an exploration of the genetic toolbox using examples of analytic methods and modern manipulations. Focus on the genetic analysis of model organisms. Use of genetic tools in dissecting complex biological pathways, developmental processes, and regulatory systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing. An introductory course in genetics, such as Biology 325, is strongly recommended.

### **MOL 395G. Structure and Function of Proteins and Membranes.**

Same as Biochemistry 395G and Biology 395G. Detailed consideration of the structure and function of proteins, with discussion of enzyme mechanisms and kinetics, the biochemistry of energy production, and the metabolism of lipids and nucleotides. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 395G, Biology 395G, Molecular Biology 395G. Prerequisite: Graduate standing; a one-year undergraduate sequence in biochemistry is strongly recommended.

### **MOL 395H. Cell Biology.**

Same as Biology 395H and Chemistry 395H. Detailed consideration of mechanisms of growth control, cell cycle regulation, mitosis, cell signaling, protein targeting, and the integration of these processes. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and consent of instructor or Biology 395F and 395G, Chemistry 395F, Molecular Biology 395F and 395G.

### **MOL 395J. Genes, Genomes, and Gene Expression.**

Same as Biochemistry 395J and Biology 395J. Detailed consideration of prokaryotic and eukaryotic mechanisms of DNA replication and transcription; posttranscriptional processing of transcription products; and mechanism and regulation of the translation of messenger RNAs. Three lecture hours a week for one semester. Only one of the following may be counted: Biochemistry 395J, Biology 395J, Molecular Biology 395J. Prerequisite: Graduate standing; and Biology 395F and 395G, or Chemistry 395F and 395G, or Molecular Biology 395F and 395G, or consent of instructor.

### **MOL 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in molecular biology and consent of the graduate adviser; for 698B, Molecular Biology 698A.

### **MOL 398T. Supervised Teaching in Molecular Biology.**

Teaching under close supervision of the instructor; weekly laboratory instruction of undergraduates, group meetings with the instructor, individual consultations, and reports throughout the teaching period. Three lecture hours a week for one semester. Prerequisite: Graduate standing in molecular biology.

### **MOL 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

## **Music Courses**

### **Music: MUS**

#### **Lower-Division Courses**

#### **MUS 201F. PIANO FOR TEACHERS.**

Restricted to music studies students. Three laboratory hours a week for one semester MUS 201F and 376C (Topic: Piano for Teachers) may not both be counted. Offered on the letter-grade basis only. Prerequisite: MUS 201M or demonstration of equivalent proficiency.

#### **MUS 201J. Beginning Class Piano for Nonmusic Majors.**

Open to all University students, except music majors, who have no experience in piano. Three class hours a week for one semester. May be repeated for credit.

#### **MUS 201K. Second-Semester Class Piano for Nonmusic Majors.**

Open to all University students, except music majors, who can fulfill the prerequisite. Three class hours a week for one semester. May be repeated for credit. Prerequisite: Credit with a grade of at least C or registration for Music 201J, or consent by audition; and consent of instructor.

#### **MUS 201M. Beginning Music Performance: Class Piano.**

Open only to music majors. Three laboratory hours a week for one semester. Credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Ability to read music, and concurrent enrollment in Music 605A or consent of instructor. No experience on the instrument required; for those with experience, consent by audition required.

#### **MUS 201N. Beginning Music Performance: Second-Semester Class Piano.**

Open only to music majors. Continuation of Music 201M. Three laboratory hours a week for one semester. Credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Music 201M completed the previous semester with a grade of at least C, or consent by audition.

#### **MUS 101Q. Beginning Guitar Class.**

Class instruction in beginning guitar performance for non-music majors or music majors studying a secondary instrument. One lecture hour a week for one semester, with additional hours to be arranged.

Prerequisite: Ability to read music. Students must provide their own six-string nylon (classical) guitar.

### **MUS 201S. Beginning Music Performance: Class Harp.**

Open to all University students who can fulfill the prerequisite. Three laboratory hours a week for one semester. For music majors, credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Ability to read music and consent of instructor. No previous experience on the instrument required.

### **MUS 201T. Beginning Music Performance: Second-Semester Class Harp.**

Open to all University students who can fulfill the prerequisite. Three laboratory hours a week for one semester. For music majors, credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Music 201S completed the previous semester with a grade of at least C, or consent by audition.

### **MUS 101V. Beginning Violin Class.**

Class instruction in beginning violin performance for non-music majors or music majors studying a secondary instrument. One lecture hour a week for one semester, with additional hours to be arranged. Prerequisite: Ability to read music.

### **MUS 302L (TCCN: MUSI 1306). An Introduction to Western Music.**

Same as European Studies 307M. Introduction to musical styles in the Euro-American art music tradition between the Middle Ages and the present day. Designed to foster critical listening and thinking about music, and deepen understanding of the vital role that music has played and continues to play in society and in individual lives. Three lecture hours a week for one semester, with one laboratory hour a week as required. Only one of the following may be counted: European Studies 307 (Topic: Introduction to Western Music), 307M, Music 302L.

### **MUS 302P. Introductory Topics in Western Music.**

May not be counted by music majors. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **MUS 303C. Fundamentals of Music: Classroom Instruments.**

Explores how music intelligently combines reading, analysis, discussion, composition, and active involvement in music making. Through analysis, performance, and practice of the pedagogy of music for children, explores the roles of music in human culture and examine music's contributions to human communication, creative expression, and well-being. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: MUS 303C, 605, 313.

### **MUS 303D. Fundamentals of Music: Guitar.**

Explores how music intelligently combines reading, analysis, discussion, composition, and active involvement in music making. Through analysis, performance, and discussion of the guitar in the folk and popular music of Western and non-Western cultures, explores music's contributions to human communication, creative expression, and well-being. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: MUS 303D, 605, 313.

### **MUS 303E. Fundamentals of Music: Piano.**

Explores how music intelligently combines reading, analysis, discussion, composition, and active involvement in music making. Through analysis, performance, and discussion of the piano in the folk and popular music of Western and non-Western cultures, explores music's contributions to human communication, creative expression, and well-being. Three

lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: MUS 303E, 605, 313.

### **MUS 303M. Introduction to Music in World Cultures.**

Same as Middle Eastern Studies 310 (Topic 5). Exploration of practices, beliefs, and issues through the study of various musical genres in the regions of Asia, the Middle East, Africa, the Pacific, Europe, and the Americas. Three lecture hours a week for one semester, with additional hours to be arranged. Only one of the following may be counted: Asian Studies 303M, Middle Eastern Studies 310 (Topic: Introduction to Music In World Cultures), 310 (Topic 5), Music 303M.

### **MUS 303N. Introduction to Popular Music in World Cultures.**

Open to all University students. Exploration of practices, beliefs, and issues through the study of various mass-mediated and commercial musical genres in the regions of Asia, the Middle East, Africa, the Pacific, Europe, and the Americas. Three lecture hours a week for one semester, with one laboratory hour a week as required. Asian Studies 303N and Music 303N may not both be counted.

### **MUS 303P. Topics in Music of World Cultures.**

May not be counted by music majors. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **MUS 605. Musicianship.**

Study of the fundamentals of music for music majors through tonal harmony, ear training, sight-singing, keyboard drill, analysis, and composition of music. Three lecture hours and two laboratory hours a week for two semesters. Only one of the following may be counted: MUS 303C, 605, 313; MUS 303D, 605, 313; MUS 303E, 605, 313; MUS 303F, 605, 313. Prerequisite: For 605A, either satisfactory completion of the audition required for admission to the Butler School of Music and registration in class piano as assigned by the Butler School of Music, or consent of instructor; for 605B, Music 605A with a grade of at least C, and registration in class piano as assigned by the Butler School of Music or consent of instructor.

### **MUS 306M. Elements of Music.**

Open to all University students except music majors. Fundamentals of music including the study of notation and the elements of rhythm, melody, and harmony; development of elementary aural skills; and writing of simple compositions. Three lecture hours a week for one semester.

### **MUS 307 (TCCN: MUSI 1310). Topics in Popular Music.**

Open to all University students. Studies of the popular music of a selected culture or geographical area. Three lecture hours a week for one semester, with one laboratory hour a week as required. May be repeated for credit when the topics vary.

**Topic 1: Music of African Americans.** Same as African and African Diaspora Studies 315U. Introduction to the variety of modes of expression of African American culture in music and other related genres. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315U, 317F (Topic 2), Music 307 (Topic 1).

**Topic 2: History of Rock Music.**

**Topic 3: Jazz Appreciation.**

### **MUS 007P. String Education: Teaching and Learning.**

Restricted to current String Project program instructors in the Butler School of Music. Discussion of curriculum planning, lesson observation, and program management topics, as well as guest pedagogues and master teacher presentations. One lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only.

Prerequisite: Acceptance of teaching application for the String Project program.

**MUS 210J. Beginning Instruction in Music Performance: Third-Semester Class Piano.**

Open only to music majors. Continuation of Music 201N. Three laboratory hours a week for one semester. Credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Music 201N completed the previous semester with a grade of at least C, or consent by audition.

**MUS 210K. Beginning Instruction in Music Performance: Fourth-Semester Class Piano.**

Open only to music majors. Continuation of Music 210J. Three laboratory hours a week for one semester. Credit granted only when taken as a secondary instrument. May be repeated for credit. Prerequisite: Music 210J completed the previous semester with a grade of at least C, or consent by audition.

**MUS 411. Ear Training and Sight-Singing.**

Material drawn from all musical styles. Two lecture hours and one laboratory hour a week for two semesters. Prerequisite: For 411A, Music 605B with a grade of at least C, and concurrent enrollment in Music 612A; for 411B, Music 411A with a grade of at least C and concurrent enrollment in Music 612B.

**MUS 111E. English Diction and Phonetic Translation.**

Open only to music majors. Study of English diction and phonetic translation specifically for musicians. Emphasis on the International Phonetic Alphabet. One lecture hour a week for one semester.

**MUS 311F. French for Musicians.**

Open only to music majors. French language and diction specifically for musicians. Three lecture hours and one laboratory hour a week for one semester.

**MUS 311G. German for Musicians.**

Open only to music majors. German language and diction specifically for musicians. Three lecture hours and one laboratory hour a week for one semester.

**MUS 311J. Italian for Musicians.**

Open only to music majors. Italian language and diction specifically for musicians. Three lecture hours and one laboratory hour a week for one semester.

**MUS 612. Structure of Tonal Music.**

Elements of tonal harmony and form; tonal analysis. Three lecture hours a week for two semesters, with one laboratory hour a week as required. Prerequisite: For 612A, Music 605B with a grade of at least C, concurrent enrollment in Music 411A, and registration in class piano as assigned by the Butler School of Music or consent of instructor; for 612B, Music 612A with a grade of at least C, concurrent enrollment in Music 411B, and registration in class piano as assigned by the Butler School of Music or consent of instructor.

**MUS 312C. Music and Culture.**

Issues in the performance, transmission, and reception of music in Western Europe and North America in global and comparative social and political contexts. Three lecture hours and one laboratory hour a week for one semester. Offered on the letter-grade basis only.

**MUS 213M, 313M. History of Music I.**

Restricted to music majors. The history of music from the beginning of notation to the eighteenth century. Three lecture hours and one

laboratory hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Music 605 and 312C, or consent of instructor.

**MUS 213N, 313N. History of Music II.**

Restricted to music majors. The history of music from the eighteenth century to the early twentieth century. Three lecture hours and one laboratory hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Music 213M or 313M, or consent of instructor.

**MUS 214C. Beginning Composition.**

Introduction to contemporary composition through the analysis and writing of short studies and through supervised original projects. Two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Concurrent enrollment in Music 411 and 612, or consent of instructor.

**MUS 115D. String Instrument Fundamentals.**

Beginning instruction in string instrument performance and pedagogy. This course is offered in the following instruments: double bass, viola, violin, and violoncello. Individual or class instruction in music performance. Laboratory hours as required. May not be repeated for credit on the same instrument. May not be taken by music majors in their principal instrument. Prerequisite: A major in music.

**MUS 115E. Brass Instrument Fundamentals.**

Beginning instruction in brass instrument performance and pedagogy. This course is offered in the following instruments: euphonium, French horn, trombone, trumpet, and tuba. Individual or class instruction in music performance. Laboratory hours as required. May not be repeated for credit on the same instrument. May not be taken by music majors in their principal instrument. Prerequisite: A major in music.

**MUS 115F. Woodwind Instrument Fundamentals.**

Beginning instruction in woodwind instrument performance and pedagogy. This course is offered in the following instruments: bassoon, clarinet, flute, oboe, and saxophone. Individual or class instruction in music performance. Laboratory hours as required. May not be repeated for credit on the same instrument. May not be taken by music majors in their principal instrument. Prerequisite: A major in music.

**MUS 115G. Guitar Fundamentals.**

Beginning instruction in guitar performance and pedagogy. Individual or class instruction in music performance. Laboratory hours as required. Prerequisite: A major in music or consent of instructor.

**MUS 115T. Lower-Division Reed Making.**

Individual instruction. May be repeated for credit. Prerequisite: Consent of instructor.

**MUS 218J. Beginning Jazz Improvisation.**

Study of basic jazz improvisational skills through performance of standard literature. Two class hours a week for one semester. Prerequisite: Music 605 or consent of instructor.

**MUS 319D. Foundations of Digital Sound and Music.**

Restricted to music majors. Introduction to the practice of creating music with computer technologies and the basic techniques of recording, editing and producing digital audio tracks, including introduction to musical acoustics and psychoacoustics, fundamentals of audio recording, editing, mixing, and processing, MIDI, digital audio workstations, and syncing sound to video. Three hours a week for one semester. Only one of the following may be counted: Arts and Entertainment Technologies 305, Fine Arts 310 (Topic: Foundations of Digital Sound and Music), Music 319D.

**MUS 119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, 919Q. Topics in Music.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Butler School of Music. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## Upper-Division Courses

### MUS 420J. Junior Jazz Recital.

Preparation and performance of a half-hour public recital in the major jazz instrument. Individual instruction. Prerequisite: For jazz composition majors, course 212J in the major jazz instrument for two semesters, or the equivalent, and approval of the jazz faculty; for jazz performance majors, course 412J in the major jazz instrument for two semesters, or the equivalent, and approval of the jazz faculty.

### MUS 220P. Practicum in a World Music Tradition.

Open to any University student who can qualify by audition. Advanced training on a non-Western musical instrument such as Javanese gender barung, Indian sitar, Arabic qanun, or Korean kayageum, or advanced training in a non-Western vocal style, and other approved musical practices. Two lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing; two semesters of enrollment in a non-Western music ensemble, such as Javanese Gamelan, Middle Eastern or North Indian Music ensemble, or other approved music ensembles, and consent of instructor.

### MUS 420R. Junior Recital.

Preparation and performance of a half-hour public recital in the major instrument. Individual instruction. Prerequisite: Performance 312 in the major instrument for four semesters, or Voice 210 for four semesters, or the equivalent; and approval of the faculty.

### MUS 321J. Twentieth-Century Musical Analysis.

Introduction to the theory and practice of music since 1900. Includes various analytical approaches to the wide range of musical styles developed over the course of the twentieth- and twenty-first centuries, as well as the music of mainstream twentieth century composers and living composers. Both analytical and aural skills are emphasized. Three lecture hours a week for one semester. Prerequisite: Music 411 and 612.

### MUS 222J. Instrumental Conducting.

Designed for those who have had no experience in conducting. Includes rudimentary use of baton, regular and irregular beat patterns, subdivisions and beat pattern variations as applied to simple instrumental literature, and practical experience in conducting instrumental groups. Two class hours a week for one semester. Prerequisite: Upper-division standing in music or consent of instructor.

### MUS 222K. Instrumental Conducting.

Continuation of Music 222J. Further technical study in irregular meters, polyrhythmic and polymetrical patterns and scores; emphasis on expressive gestures, phrasal and compound beat conducting. Two class hours a week for one semester. Prerequisite: Music 222J or consent of instructor.

### MUS 223J. Choral Conducting.

Designed for those who have had no experience in conducting. Includes regular and irregular beat patterns, subdivisions and beat pattern variations as applied to simple choral literature, and practical experience

in conducting vocal groups. Two class hours a week for one semester. Prerequisite: Upper-division standing in music.

### MUS 223K. Choral Conducting.

Continuation of Music 223J. Further technical study in irregular meters, polyrhythmic and polymetrical patterns and scores; emphasis on expressive gestures, phrasal and compound beat conducting. Two class hours a week for one semester. Prerequisite: Music 223J or consent of instructor.

### MUS 224G. Intermediate Composition.

Continuation of Music 214C. The equivalent of two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Music 214C with a grade of at least B, and approval of the music theory and composition faculty.

### MUS 224J. Advanced Composition.

Continuation of Music 224G for composition majors only. The equivalent of two lecture hours and one laboratory hour a week for one semester. With consent of the music theory and composition faculty, may be repeated for credit. Prerequisite: Music 224G with a grade of at least B, and approval of the music theory and composition faculty.

### MUS 325L. Counterpoint.

Development of contrapuntal skill in sixteenth-century style and in related late-twentieth-century styles; the teaching of counterpoint, including Fuxian species. Three lecture hours a week for one semester. Prerequisite: Music 411 and 612.

### MUS 325M. Counterpoint.

Analysis of eighteenth-century inventions, fugues, and passacaglias; development of contrapuntal skills in twentieth-century styles that draw on these historical models; the teaching of counterpoint. Three lecture hours a week for one semester.

### MUS 226G. Orchestration and Arranging.

Techniques of instrumentation, arranging, and orchestration for band, orchestra, and chamber ensembles. Two lecture hours a week for one semester. Prerequisite: Music 411 and 612.

### MUS 226J. Orchestration and Instrumentation.

Study of the characteristics of individual instruments; writing for various combinations; study of scores of different periods; listening to recordings and live performances. Two lecture hours a week for one semester. Prerequisite: Music 411 and 612.

### MUS 226K. Orchestration and Instrumentation.

Continuation of Music 226J. Two lecture hours a week for one semester. Prerequisite: Music 226J.

### MUS 226N. Choral Arranging.

Techniques of voicing and arranging for choirs, vocal ensembles, and vocal chamber groups. Two lecture hours a week for one semester. Prerequisite: Music 411 and 612.

### MUS 228G. Jazz Theory I.

Study of the elements of jazz and popular styles, with emphasis on written theory and keyboard skills. Two lecture hours a week for one semester. Prerequisite: Music 201N and 605, or consent of instructor.

### MUS 228J. Intermediate Jazz Improvisation.

Continuation of Music 218J. Two class hours a week for one semester. Prerequisite: Music 201N, 605, 218J, and 228G; or consent of instructor.

### **MUS 228K. Beginning Jazz Piano Techniques.**

Designed for music majors (pianists and nonpianists) seeking basic skills in chord notation, chord interpretation and voicing, voice leading, and chord and scale relationships for improvisation. Three laboratory hours a week for one semester. Prerequisite: Music 210K and 612, or consent of instructor.

### **MUS 228L. Jazz Theory II.**

Continuation of the concepts taught in Music 228G, with an emphasis on ear training, harmonic motion of jazz, and harmonic embellishment. Two lecture hours a week for one semester. Prerequisite: Music 228G.

### **MUS 328M. Studio Arranging.**

Techniques of composing and arranging for standard jazz and popular music instrumental combinations in varied styles. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Prerequisite: Music 612 and 228G, or consent of instructor.

### **MUS 228P. Jazz Composition.**

Individual instruction in the creative process of composition, involving the melodic, harmonic, and rhythmic components of various jazz styles. Individual instruction. May be repeated for credit. Prerequisite: Music 328M or consent of instructor.

### **MUS 329E. Introduction to Electronic Media.**

Introduction to the fundamentals of recording, tape editing, and electronic music synthesis. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Upper-division standing and consent of instructor.

### **MUS 329F. Projects in Electronic Media.**

Continuation of Music 329E for nontheory and noncomposition majors. One and one-half lecture hours and eight laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Music 329E and consent of instructor.

### **MUS 329G. Intermediate Electronic Composition.**

Continuation of Music 329E for music theory or composition majors. Three lecture hours and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Music 329E and consent of instructor.

### **MUS 329J. Introduction to Computer Music.**

An introduction to the basic concepts of digital music synthesis and signal processing. One and one-half lecture hours and eight laboratory hours a week for one semester. Arts and Entertainment Technologies 331 and Music 329J may not both be counted. Prerequisite: Music 329E and consent of instructor.

### **MUS 329M. Intermediate Computer Music.**

Continuation of Music 329J. One and one-half lecture hours and eight laboratory hours a week for one semester. Arts and Entertainment Technologies 332 and Music 329M may not both be counted. May be repeated for credit. Prerequisite: Music 329J and consent of instructor.

### **MUS 129Q, 229Q, 329Q, 429Q, 529Q, 629Q, 729Q, 829Q, 929Q. Topics in Music.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Butler School of Music. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **MUS 230L, 330L. History of Music III.**

Restricted to music majors. The history of music from the early twentieth century to the present. Three lecture hours and one laboratory hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Music 213N or 313N, or consent of instructor.

### **MUS 331J. Advanced Studies in Music Theory.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: MUS 612 and 313N, or upper-division standing and consent of instructor.

### **MUS 334. The Music of the Americas.**

Studies of both indigenous and borrowed traditions in the popular, folk, and art music of the Americas from the colonial period to the present. Three lecture hours a week for one semester, with one laboratory hour a week as required. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Music of Mexico and the Caribbean.** Same as African and African Diaspora Studies 338F and Latin American Studies 326 (Topic 1). Introduction to the history of Mexican and Caribbean traditional and commercial music, with some discussion of classical music as well. Attention will be given to music of indigenous, African, European, and mixed origin. Mexico and the Spanish-speaking Caribbean receive special attention. Class meetings will be divided into lecture/discussion segments, videos, listening, and performance instruction/demonstration. Only one of the following may be counted: African and African Diaspora Studies 338F, 374F (Topic 22), Latin American Studies 326 (Topic 1), Music 334 (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 2: Music of Latin America.** Same as African and African Diaspora Studies 338D and Latin American Studies 326 (Topic 2). Consider Latin American music within a broad cultural and historical framework. Latin American musical practices are explored illustrating the many ways that aesthetics and society are embodied in and negotiated through performance. Concepts include diaspora, colonialism, mestizaje, hybridity, migration and globalization. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 338D, 374F (Topic: Music of Latin America), Latin American Studies 322 (Topic: Music of Latin America), 326 (Topic 2), Music 334 (Topic 2).

**Topic 3: Music of Brazil and Argentina.** Same as Latin American Studies 326 (Topic 3). An introduction to Brazilian and Argentine music from samba, capoeira, and forro to tango, cumbia villera, and chacarera; examines such music making within its various historical, social, and political contexts. Uses course readings, lectures, listening assignments, performance attendance, and movie screenings to analyze themes including nationalism and ethnicity, globalization and development, and democracy and social justice. Only one of the following may be counted: Latin American Studies 322 (Topic: Music of Brazil and Argentina), 326 (Topic 3), Music 334 (Topic 3). Prerequisite: Upper-division standing.

**Topic 4: Music of the Andean Countries.** Same as Latin American Studies 326 (Topic 4). Introduction to the music of Andean countries including Colombia, Ecuador, Peru, Bolivia, and Chile. Explores the role music plays in shaping historical and modern Andean societies, as well as how music comments upon national culture, society, and politics, with particular attention to the ways in which musicians and musical movements continue to influence Andean societies. Subjects include pre-Columbian and colonial music making; music representative of the tripartite indigenous, African, and Iberian heritage of Andean countries; aesthetics, identity, and musical expression; ritual, religion, and the politics of musical performance. Only one of the following may be counted: Latin American Studies

322 (Topic: Music of the Andean Countries), 326 (Topic 4), Music 334 (Topic 4).

**Topic 5: The Music of the African Diaspora.** Same as African and African Diaspora Studies 338E and Latin American Studies 326 (Topic 5). The musical legacy of the African slave trade in the Americas, the social contexts in which black musical forms have developed, and their varied forms. Subjects include the shifting meanings of "black music" in various contexts; the notion of hybridity; the uses of African influenced music as a political or oppositional tool; and African ethnic groups represented prominently in the New World, the traditions they brought with them, and the ways they have been adapted to new ends. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 338E, 374F (Topic 8), Latin American Studies 326 (Topic 5), Music 334 (Topic: Music of the African Diaspora), 334 (Topic 5). Additional prerequisite: Upper-division standing.

### **MUS 337. Music and Film Sound.**

History of music and the soundtrack; analysis of interactions between image and sound; and aesthetics and issues of production and postproduction. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **MUS 338. Masterpieces of Music.**

Study of the works of specific composers or of specific genres in the Western musical tradition. Three lecture hours a week for one semester. May not be counted by music majors. May be repeated for credit when the topics vary. Prerequisite: Music 302L or consent of instructor.

### **MUS 342. Area Studies in Ethnomusicology.**

Studies of the musical traditions of selected cultures or geographical areas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 3: Musics of India.** Same as Anthropology 324L (Topic 13: Musics of India) and Asian Studies 361 (Topic 11: Musics of India). Prerequisite: Upper-division standing.

**Topic 5: Black Perspectives in Jazz.** Same as African and African Diaspora Studies 338C. Explores the social, cultural, political, and artistic relationships between jazz and the black experience, both within the African American context and throughout the diaspora. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 338C, 372E (Topic 12), Music 342 (Topic 5).

**Topic 6: Musics of East and Southeast Asia.** Additional prerequisite: Upper-division standing.

**Topic 7: Introduction to the Music of the Middle East.** Same as Jewish Studies 363 (Topic 21). Only one of the following may be counted: Islamic Studies 373 (Topic: Introduction to Music of the Middle East), Jewish Studies 363 (Topic: Introduction to Music of the Middle East), 363 (Topic 21), Middle Eastern Languages and Cultures 321 (Topic: Introduction to Music of the Middle East), Middle Eastern Studies 328 (Topic: Introduction to Music of the Middle East), 342 (Topic: Introduction to Music of the Middle East), Music 342 (Topic: Introduction to Music of the Middle East), 342 (Topic 7).

### **MUS 343J. History of Jazz.**

Survey of the history of jazz from its origins to the present. Three lecture hours a week for one semester. Prerequisite: Upper-division standing in music or consent of instructor.

### **MUS 346R. Music and Religious Identities in the US.**

Same as American Studies 325E and Religious Studies 346M. Examine religious music in Christianity and Judaism in relation to communities in religious context of Europe and the United States. Three lecture hours

a week for one semester. Only one of the following may be counted: American Studies 325 (Topic: Music and Religious Identities in the US), 325E, Music 346R, 376G (Topic: US Music/Religious Identity), Religious Studies 346 (Topic: Music and Religious Identities in the US), 346M. Prerequisite: Upper-division standing.

### **MUS 350S. Creating Music and Sound for Film, Video, and Games.**

Priority given to music composition majors. Designed to introduce students to concepts of music and sound for a variety of media with a primary focus on creating original music and/or soundtracks. Subjects include music structures, production and editing, film and video synchronization, game audio, and other sound for film related topics. Three lecture hours a week for one semester. Arts and Entertainment Technologies 323 and Music 350S may not both be counted. Prerequisite: Music 319D with a grade of at least C, and consent of instructor.

### **MUS 354. Musical Development of Children.**

The processes of musical development in young children. Topics include music in multicultural contexts, music in the cognitive and social development of young children, and special issues concerning music and exceptional children. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

### **MUS 354C. Children's Music Literature and Performance I.**

Literature, materials, and music performance activities appropriate for young children. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Music 605 or 313, upper-division standing in music studies, or consent of instructor.

### **MUS 354D. Children's Music Literature and Performance II.**

Continuation of Music 354C. Three lecture hours a week for one semester. Prerequisite: Music 354C or consent of instructor.

### **MUS 354F. Music Performance, Listening, and Appreciation.**

Techniques and materials for the development of skill in composition, arranging, performance, and aural discrimination; problems related to the adolescent voice. Three lecture hours and one laboratory hour a week for one semester.

### **MUS 354S. Game Development Capstone: Two-Dimensional Games.**

Same as Computer Science 354S and Theatre and Dance 354T (Topic 17). Participation in an interdisciplinary team to gain a thorough understanding of the two-dimensional game development process, through modeling of the environment and practices that are used in game studios. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 354S, 378 (Topic: Game Development Capstone: 2D Games), Music 354S, 376J (Topic: Game Development Capstone: 2D Games), Theatre and Dance 354T (Topic 17). Prerequisite: For computer science majors, Computer Science 354 with a grade of at least C-; for others, consent of instructor.

### **MUS 354T. Game Development Capstone: Three-Dimensional Games.**

Same as Computer Science 354T and Theatre and Dance 354T (Topic 18). Participation in interdisciplinary teams to gain a thorough understanding of the three-dimensional game development process, through modeling of the environment and practices that are used in game studios. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 354T, Music 354T, 376J (Topic: Game Development Capstone: 3D Games), Theatre and Dance 354T (Topic 18). Prerequisite: For computer science majors, Computer

Science 354R with a grade of at least C- or consent of instructor; for others, consent of instructor.

### **MUS 155C. Techniques of Percussion Performance.**

Percussion performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures. Two laboratory hours a week for one semester. Prerequisite: Upper-division standing in music studies.

### **MUS 255D. Techniques of String Performance.**

String instrument performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures. Two lecture hours a week for one semester. Prerequisite: Upper-division standing in music studies.

### **MUS 255E. Techniques of Brass Performance.**

Brass instrument performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures. Two lecture hours a week for one semester. Prerequisite: Upper-division standing in music studies.

### **MUS 255F. Techniques of Woodwind Performance.**

Woodwind instrument performance techniques for individual and ensemble settings, including appropriate literature and rehearsal procedures. Two lecture hours a week for one semester. Prerequisite: Upper-division standing in music studies.

### **MUS 255M. Marching Band Techniques.**

Literature, materials, and techniques of the marching band. Two lecture hours and one laboratory hour a week for one semester. Prerequisite: Upper-division standing in music studies.

### **MUS 255V. Techniques of Vocal Performance.**

Technique of individual and ensemble singing practiced through the study of vocal literature. Two lecture hours a week for one semester. Prerequisite: Upper-division standing in music studies.

### **MUS 356G, 456G. Choral Ensemble Literature and Performance.**

Choral music literature; rehearsal and performance techniques for choirs and small ensembles. One lecture hour a week for each credit hour earned and one lab hour a week for one semester. Prerequisite: Upper-division standing in music studies or consent of instructor.

### **MUS 356J. Instrumental Ensemble Literature and Performance.**

Study of the literature and of performance and rehearsal techniques for heterogeneous instrumental ensembles. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Upper-division standing in music studies and Music 210K.

### **MUS 259C. Chamber Music: Brass.**

Restricted to music majors. The equivalent of two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, Music 411 and 612, and consent of instructor.

### **MUS 259E. Chamber Music: Percussion.**

Restricted to music majors. The equivalent of two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, Music 411 and 612, and consent of instructor.

### **MUS 159J. Harp Repertoire.**

Study and performance of the harp repertoire. One laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor.

### **MUS 259L. Vocal Repertoire Coaching.**

Two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor.

### **MUS 259N. Chamber Music: Strings and Piano.**

The equivalent of two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, Music 411 and 612, and consent of instructor.

### **MUS 259R. Chamber Music: Saxophone.**

Restricted to music majors. The equivalent of two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, Music 411 and 612, and consent of instructor.

### **MUS 259T. Topics in Instrumental Technology.**

Two lecture hours and one laboratory hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

### **MUS 259V. Chamber Music: Vocal.**

Restricted to music majors. The equivalent of two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, Music 411 and 612, and consent of instructor.

### **MUS 259W. Chamber Music: Woodwinds.**

Restricted to music majors. The equivalent of two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, Music 411 and 612, and consent of instructor.

### **MUS 160C. Senior Composition Recital.**

Open only to music composition majors. Preparation and performance of a thirty-minute public recital of the student's original compositions. Individual instruction.

### **MUS 460J. Senior Jazz Recital.**

Open only to jazz performance majors. Preparation and performance of a one-hour public recital in the major jazz instrument. Individual instruction. Prerequisite: Music 420J and approval of the jazz faculty.

### **MUS 460R. Senior Recital.**

Open only to music performance majors. Preparation and performance of a one-hour public recital in the major instrument. Individual instruction. Prerequisite: For performance majors approved to pursue a pedagogy emphasis, approval of the faculty; for other performance majors, Music 420R and approval of the faculty.

### **MUS 262C. Intermediate Instrumental Conducting.**

Problems and interpretation of larger band and orchestral works; analytical study of musical form as it relates to conducting; a synthesis of musical understanding and expansion of comprehensive musicianship through conducting problems. Two lecture hours and one laboratory hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and Music 222K.

### **MUS 164L, 364L. Advanced Ear Training.**

Further development of techniques taught in Music 411, with emphasis on aural recognition of larger musical forms and of music of

contemporary style. For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Upper-division standing in music and Music 411 and 612.

### **MUS 366P. Senior Piano Pedagogy Project.**

Open only to senior piano performance majors pursuing the pedagogy option. Students complete a research paper on a piano pedagogy topic, such as methodology, skills development, or repertoire. Individual instruction. Prerequisite: Upper-division standing and Music 460P with a grade of at least B.

### **MUS 368L. Review of Music Theory.**

An intensive review of the skills and concepts required for the study of music theory at the graduate level. Three lecture hours a week for one semester. May not be counted toward a graduate degree. Prerequisite: Upper-division or graduate standing in music.

### **MUS 271P. Pedagogy.**

Designed primarily for students planning teaching careers. Offered in piano, voice, and orchestral instruments. Methods include individual and class instruction through the use of music literature and the teaching repertoire. Practice teaching and laboratory for diagnostic and corrective methods are required. Two lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Pedagogy: Piano I.**

**Topic 2: Pedagogy: Piano II.**

**Topic 3: Pedagogy: Voice I.**

**Topic 4: Pedagogy: Voice II.**

**Topic 5: Pedagogy: Orchestral Instruments I.**

**Topic 6: Pedagogy: Orchestral Instruments II.**

### **MUS 375J. Twentieth-Century Music Techniques.**

Restricted to music majors. Review of techniques and methods for analyzing twentieth-century music. Three lecture hours a week for one semester. Music 375J and Music 376J (Topic 1) may not both be counted. Offered on the letter-grade basis only.

### **MUS 275T. Teaching and Learning in Music.**

Restricted to music majors. Two lecture hours a week for one semester. Prerequisite: Upper-division standing

### **MUS 176C, 276C, 376C. Special Topics in Music Performance.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

### **MUS 376G. Special Topics in Music Literature.**

Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

### **MUS 376J. Special Topics in Music Theory.**

Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

**Topic 2: Performance, Analysis, and Interpretation.** Restricted to music majors. Undergraduate music theory seminar applying theoretical and historical insights to performance and interpretation. Three lecture hours a week for one semester. Music 376J (Topic 2) and Music 379K (Topic: Performance and Analysis) may not both be

counted. Additional prerequisite: Upper-division standing or consent of instructor.

### **MUS 176M. Special Topics in Music Studies.**

One class hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

### **MUS 176R. Guitar Repertory.**

Restricted to music majors whose primary instrument is guitar. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing.

### **MUS 276S. Bassoon Literature.**

Restricted to music majors. Two lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing

### **MUS 276T. Flute Literature.**

Restricted to music majors. Two lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing

### **MUS 276U. French Horn Literature.**

Restricted to music majors. Two lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing

### **MUS 276V. Oboe Literature.**

Restricted to music majors. Two lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing

### **MUS 178C, 278C, 378C. Independent Study: Music Performance.**

Individual projects to be completed under faculty supervision. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor and the director of the school.

### **MUS 178G, 278G, 378G. Independent Study: Music Literature.**

Individual projects to be completed under faculty supervision. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor and the director of the school.

### **MUS 178J, 278J, 378J. Independent Study: Music Theory.**

Individual projects to be completed under faculty supervision. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor and the director of the school.

### **MUS 178M, 278M, 378M. Independent Study: Music Studies.**

Individual projects to be completed under faculty supervision. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor and the director of the school.

### **MUS 379G. Capstone in Music.**

Restricted to seniors pursuing the Bachelor of Arts in Music. Drawing from the chosen concentration for the Bachelor of Arts in Music, generate scholarly or creative work to enhance preparation for a post-baccalaureate education or career. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and consent of instructor.

### **MUS 379K. Advanced Topics in Music Literature.**

Three lecture hours a week for one semester. Two or more topics may be taken concurrently. May be repeated for credit when the topics

vary. Prerequisite: Music 612 and 313N, or upper-division standing and consent of instructor.

**Topic 1: Topics in Keyboard Literature.**

**Topic 2: Piano Literature, Eighteenth Century to the Present.**

**Topic 5: Topics in Instrumental Chamber Music.**

**Topic 6: Topics in Symphonic Tradition.**

**Topic 7: Topics in Instrumental Concerto.**

**Topic 8: Topics in the Art Song.**

**Topic 9: Topics in Opera and Music Drama.**

**Topic 10: Topics in Mass and Motet.**

**Topic 11: Topics in Choral Music.**

**Topic 12: Topics in Cantata and Oratorio.**

**Topic 13: Topics in Modern Music.**

**Topic 14: Special Topics in the Western Musical Tradition.**

**Topic 17: Band Literature.**

### **MUS 379Q. Musical Acoustics.**

Same as Mechanical Engineering 379Q. Restricted to music majors. Designed to help students develop the intuition and vocabulary for understanding the basic physical principles relevant to musical instruments and sound (e.g., mechanics, vibrations, acoustics, harmonics, acoustic-electronic conversions, speakers, hearing, perception, room acoustics) in order to be able to read basic articles on the subject of musical acoustics. Material is kept relevant to musical principles (e.g., performance techniques, scales/harmony) throughout. Three lecture hours a week for one semester. Only one of the following may be counted: Arts and Entertainment Technologies 320D, 339 (Topic: Musical Acoustics), Mechanical Engineering 379M (Topic: Musical Acoustics), 379Q, Music 376J (Topic: Musical Acoustics), 379Q.

## **Graduate Courses**

### **MUS 380. Advanced Studies in the History and Culture of Music.**

Historical and cultural studies of the music of various periods or places. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Medieval.**

**Topic 2: Renaissance.**

**Topic 3: Baroque.**

**Topic 4: Eighteenth Century.**

**Topic 5: Nineteenth Century.**

**Topic 6: Twentieth Century.**

**Topic 11: Music of Mexico and the Caribbean.** Introduction to the history of Mexican and Caribbean traditional and commercial music, with some discussion of classical music as well. Explore music of indigenous, African, European, and mixed origin.

**Topic 12: Music of Latin America.** Consider Latin American music within a broad cultural and historical framework. Latin American musical practices are explored illustrating the many ways that aesthetics and society are embodied in and negotiated through performance. Concepts include diaspora, colonialism, mestizaje, hybridity, migration and globalization.

**Topic 13: Music of Brazil and Argentina.** An introduction to Brazilian and Argentinian music from samba, capoeira, and forro to tango, cumbia villera, and chacarera; examines such music making within its various historical, social, and political contexts.

**Topic 14: Music of the Andean Countries.** Introduction to the music of Andean countries including Colombia, Ecuador, Peru, Bolivia, and Chile. Explore the role music plays in shaping historical and modern Andean societies, as well as how music comments upon national culture, society, and politics, with particular attention to the ways in which musicians and musical movements continue to influence Andean societies. Subjects include pre-Columbian and colonial music

making; music representative of the tripartite indigenous, African, and Iberian heritage of Andean countries; aesthetics, identity, and musical expression; ritual, religion, and the politics of musical performance.

**Topic 15: The Music of the African Diaspora.** Investigate the musical legacy of the African slave trade in the Americas, the social contexts in which black musical forms have developed, and their varied forms. Includes the shifting meanings of "black music" in various contexts; the notion of hybridity; the uses of African influenced music as a political or oppositional tool; and African ethnic groups represented prominently in the New World, the traditions they brought with them, and the ways they have been adapted to new ends.

### **MUS 280D. Topics in Diction and Translation.**

Advanced study in English, Italian, French, and German diction and translation. The equivalent of two lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in music.

### **MUS 180G. Improvisation (Non-Jazz).**

One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **MUS 280M. Group Piano Pedagogy.**

The development of skills in teaching group piano; examination and evaluation of methods and materials used in keyboard instruction; learning styles; research. Two lecture hours and one laboratory hour a week for one semester. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

### **MUS 280N. Technology in Voice Study.**

The integration of computer technology and audiovisual equipment into applied voice instruction. One lecture hour and one and one-half laboratory hours a week for one semester. May be repeated for credit, but only two semester hours may be counted toward the Doctor of Musical Arts degree. Prerequisite: Graduate standing in music.

### **MUS 180R, 280R. Vocal Repertoire Coaching.**

For 180R, one lecture hour and three laboratory hours a week for one semester; for 280R, one lecture hour and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **MUS 180T, 280T. Accompanying.**

For 180T, one lecture hour and three laboratory hours a week for one semester; for 280T, one lecture hour and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **MUS 180V, 280V. Collaborative Piano: Vocal and Instrumental.**

For 180V, one lecture hour and three laboratory hours a week for one semester; for 280V, one lecture hour and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **MUS 381. Reference and Research Materials in Music.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing in music.

### **MUS 281C. Chamber Music: Brass.**

Restricted to graduate music majors. One lecture hour and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**MUS 181D. Chamber Music: Artist Diploma.**

Restricted to graduate music students in the Artist Diploma program. One lecture hour and three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**MUS 281E. Chamber Music: Percussion.**

Restricted to graduate music majors. One lecture hour and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**MUS 381J. Introduction to Musicology and Ethnomusicology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in music.

**Topic 1: Foundations of Musicology.**

**Topic 2: Foundations of Ethnomusicology.**

**Topic 3: Proseminar in Musicological Research.**

**Topic 4: Analytical and Ethnographic Methods in Ethnomusicology.**

Music 381J (Topic 3) and 381J (Topic 4) may not both be counted.

**MUS 281K. Chamber Music: Piano.**

Restricted to graduate music majors. One lecture hour and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**MUS 481M. Chamber Music: Masters Quartet.**

Restricted to Master of Music-Chamber Music majors. One lecture hour and ten laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**MUS 281P. Graduate Pedagogy.**

Restricted to graduate music majors. Intensive study of the principles and methods of teaching various instruments at the college level. Two lecture hours a week for one semester. Music 480P and 281P may not both be counted. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Graduate Pedagogy: Piano I.**

**Topic 2: Graduate Pedagogy: Piano II.**

**Topic 3: Graduate Pedagogy: Voice I.**

**Topic 4: Graduate Pedagogy: Voice II.**

**Topic 5: Graduate Pedagogy: Orchestral Instruments I.**

**Topic 6: Graduate Pedagogy: Orchestral Instruments II.**

**MUS 281R. Chamber Music: Saxophone.**

Restricted to graduate music majors. One lecture hour and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**MUS 281S. Chamber Music: Strings.**

Restricted to graduate music majors. One lecture hour and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**MUS 281V. Chamber Music: Vocal.**

Restricted to graduate music majors. One lecture hour and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**MUS 281W. Chamber Music: Woodwinds.**

Restricted to graduate music majors. One lecture hour and six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**MUS 282J. Instrumental Conducting.**

Designed for those who have had no experience in conducting. Explore rudimentary use of baton, regular and irregular beat patterns, subdivisions and beat pattern variations as applied to simple instrumental literature. Develop practical experience in conducting instrumental groups. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**MUS 383L. Seminar in Music Education.**

Individual and group studies of advanced topics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in music, and Music 391 or consent of instructor.

**MUS 384J. Advanced Studies in Music Education.**

Review and criticism of research, acoustics, and psychology. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: History and Philosophy.**

**Topic 3: Current Trends in Music Education.**

**Topic 4: Research in Music Education I.**

**Topic 5: Tests and Measurements in Music.**

**Topic 8: Research in Music Education II.**

**Topic 9: Music Learning and Behavior.**

**MUS 284P. Practicum in a World Music Tradition.**

Open to any University student who can qualify by audition. Advanced training on a non-Western musical instrument such as Javanese gender barung, Indian sitar, Arabic qanun, or Korean kayakeum, or advanced training in a non-Western vocal style, and other approved musical practices. Two lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing; two semesters of enrollment in a non-Western music ensemble, such as Javanese Gamelan, Middle Eastern or North Indian Music ensemble, or other approved music ensembles, and consent of instructor.

**MUS 385. Special Topics in Musicology.**

Research in depth on various topics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in music.

**Topic 1: History of Music Theory to 1750.**

**Topic 2: History of Music Theory.**

**Topic 3: Notational Systems before 1400.**

**Topic 4: Notational Systems since 1400.**

**Topic 5: Studies in Organology.**

**MUS 385J. Seminars: Musicology and Ethnomusicology.**

Intensive studies of special problems and/or issues in music, broadly defined. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**MUS 185R, 285R, 385R. Directed Research in Musicology.**

Individual instruction. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **MUS 386J. Topics in the History of Sacred Music.**

Introduction to a significant body of choral works, from the thirteenth century to the present age, composed especially for religious occasions and venues. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in music.

### **MUS 286S. Music in Worship: Service Planning and Service Playing.**

The art and practice of preparing, rehearsing, and performing specific works of sacred music for religious occasions. Two lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in music.

### **MUS 387L. Advanced Studies in Music Literature.**

Analytical and historical studies of a particular repertoire. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

**Topic 1: Topics in the Solo Song.**

**Topic 2: Topics in Music for Keyboard Instruments.**

**Topic 4: Topics in Music for String Instruments.**

**Topic 5: Band Literature.**

**Topic 6: Topics in Choral Music.**

**Topic 7: Topics in Orchestral Music.**

**Topic 8: Topics in Band Music.**

**Topic 9: Topics in Opera.**

**Topic 10: Topics in Jazz.** Additional prerequisite: Music 343J or consent of instructor.

**Topic 11: Topics in Music Literature.**

**Topic 12: Topics in Collaborative Piano Literature.**

**Topic 13: Topics in Chamber Music.**

**Topic 20: Jazz Ensemble Literature.** Explore a selection of acclaimed albums of modern jazz, which by general consensus form a body of essential listening knowledge - the foundation of a recorded jazz canon. Music 387L (Topic: Jazz Ensemble Literature) and Music 387L (Topic 20) may not both be counted.

**Topic 21: Jazz Perspectives.** Investigative chronological study of jazz history, aimed at gaining a better sense of jazz's ever-evolving "state of the art," through the experiences of its musicians within their own time. Three lectures hours a week for one semester. Music 387L (Topic: Jazz Perspectives) and 387L (Topic 21) may not both be counted.

### **MUS 388C. Composition.**

Individual instruction. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **MUS 388E. Electronic Composition.**

Individual instruction. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **MUS 388F. Film and Scoring Media.**

Three lecture hours a week for one semester. Music 688A (Topic: Film and Scoring Media) and 388F may not both be counted. Prerequisite: Graduate standing in composition, or graduate standing and consent of instructor.

### **MUS 388G. Graduate Media Project.**

Individual instruction. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **MUS 388J. Improvisation Styles and Techniques.**

The study and analysis of jazz improvisation. Three lecture hours a week for one semester. Music 688 (Topic 16) and 388J may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **MUS 388K. Project in Jazz Composition.**

Individual instruction. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **MUS 388M. Studies in Music Theory.**

Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in music or graduate standing and consent of instructor; additional prerequisites vary by topic.

**Topic 1: Foundations of Music Theory.** Music 688 (Topic 2) and 388M (Topic 1) may not both be counted. Additional prerequisite: Graduate standing in music theory, musicology, ethnomusicology, or composition; or graduate standing and consent of instructor.

**Topic 2: Form Theory.** Music 688 (Topic 7) and 388M (Topic 2) may not both be counted. Additional prerequisite: Graduate standing in music theory, or graduate standing and consent of instructor.

**Topic 3: Contemporary Styles and Techniques.** Music 688 (Topic 9) and 388M (Topic 3) may not both be counted. Additional prerequisite: Graduate standing in music theory or composition, or graduate standing and consent of instructor.

**Topic 4: Current Trends in Music Theory.** Music 688 (Topic 15) and 388M (Topic 4) may not both be counted. Additional prerequisite: Graduate standing in music theory, musicology, or composition; or graduate standing and consent of instructor.

**Topic 5: Heinrich Schenker's Theory of Tonal Music.** Music 688 (Topic 11) and 388M (Topic 5) may not both be counted. Additional prerequisite: Graduate standing in music theory, or graduate standing and consent of instructor.

**Topic 6: Music and Meaning.** Music 688 (Topic: Music and Meaning) and 388M (Topic 6) may not both be counted. Additional prerequisite: Graduate standing in music theory, musicology, or composition; or graduate standing and Music 388T; or graduate standing and consent of instructor.

**Topic 7: Analysis of Popular Music.**

### **MUS 388P. Jazz Pedagogy.**

Research and study of the methods and materials essential to teaching and planning a comprehensive curriculum in jazz studies. Three lecture hours a week for one semester. Prerequisite: Graduate standing in music and consent of instructor.

### **MUS 188R, 288R, 388R. Directed Research in Music Theory.**

Individual instruction. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **MUS 388S. Seminar in Music Theory.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in music theory, musicology, ethnomusicology, or composition; or graduate standing and consent of instructor.

### **MUS 388T. Analytical Techniques.**

Three lecture hours a week for one semester. Music 688 (Topic 5) and 388T may not both be counted. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

### **MUS 388V. Score Reading.**

Three lecture hours a week for one semester. Music 688 (Topic 8) and 388V may not both be counted. Prerequisite: Graduate standing in music, or graduate standing and consent of instructor.

### **MUS 391. Foundations of Music Education.**

Introduction to graduate study, history, philosophy, and basic concepts in music education. Three lecture hours a week for one semester. Required of all music and human learning majors. Prerequisite: Graduate standing.

### **MUS 392. Psychology of Music.**

Psychological aspects of music, emphasizing perception, experimental aesthetics, music function, and the nature of musical ability. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **MUS 193, 293, 393. Special Problems in Music Education.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: General Music.**

**Topic 2: Elementary School Music.**

**Topic 3: Choral Technique.**

**Topic 5: Directed Research.**

**Topic 7: Music in Higher Education.**

**Topic 8: Music and Exceptional Children.**

**Topic 9: Instrumental Music.**

**Topic 10: Computer Applications in Music Education.**

**Topic 11: Group Teaching: Materials and Methods.**

**Topic 12: Studio Piano: Goals and Procedures.**

**Topic 14: Music in Therapy and Special Education.** Music 393 (Topic: Music in Therapy and Special Education) and Music 393 (Topic 14) may not both be counted.

### **MUS 194, 394, 694. Directed Reading.**

Readings in the literature of music. The equivalent of one, three, or six lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in music and consent of the graduate adviser.

### **MUS 395W. Writing about Music.**

Designed to develop and improve writing skills through required readings and through writing concert reviews, opinion pieces, essays, and articles about music. Three lecture hours a week for one semester. Prerequisite: Graduate standing in music.

### **MUS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in music and consent of the graduate adviser; for 698B, Music 698A.

### **MUS 398D. Artist Recital.**

Preparation for and performance of a recital. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, Performance 480 with a grade of at least B, and consent of the graduate adviser.

### **MUS 398M. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in music and consent of the graduate adviser.

### **MUS 698R. Master's Recital.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698RA, graduate standing in performance or music literature and pedagogy, and course 380 or 480 in the appropriate instrument; for 698RB, Music 698RA.

### **MUS 398T. Supervised Teaching in Music.**

Supervised teaching for graduate students in music; two semesters under supervision; weekly meetings with instructor, consultations, reports throughout the teaching period. Three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant.

### **MUS 399, 699, 999. Treatise.**

Restricted to students approved to pursue the treatise option for the Doctoral of Musical Arts degree. Author a substantial research paper of a scholarly nature and perform associated post-candidacy doctoral recitals. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Passage of preliminary and comprehensive examinations for the Doctor of Musical Arts degree, admission to candidacy, and approval by the Graduate Academic Affairs Committee.

### **MUS 399N, 699N, 999N. Nontreatise Lecture Recital Document.**

Restricted to students pursuing the nontreatise option for the Doctor of Musical Arts degree. Author a research paper of a scholarly nature and perform associated post-candidacy doctoral recitals. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Passage of preliminary and comprehensive examinations for the Doctor of Musical Arts degree and admission to candidacy.

### **MUS 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Natural Sciences Courses**

## **Natural Sciences: NSC**

### **Lower-Division Courses**

#### **NSC 301C. Freshman Seminar.**

Restricted to first-semester freshmen. Small-group seminar involving reading, discussion, writing, and oral reports. Introduction to University resources, including libraries, computer and research facilities, and museums. Several sections are offered each semester, with various topics and instructors. Two lecture hours and one discussion hour a week for one semester.

#### **NSC 001D. Practicum in Medical Laboratory Science.**

Restricted to medical laboratory science majors; contact the department for permission to register for this class. Students participate in a twelve- to sixteen-month off-campus education program. Forty laboratory hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Completion of all organized coursework for the Bachelor of Science in Medical Laboratory Science degree and consent of the program director.

#### **NSC 001S. Natural Sciences Seminar.**

Restricted to students in special programs in the College of Natural Sciences. Seminars may include study sessions, career and networking events, student and community speakers, and other subjects related to

issues for students in science. Emphasis on student participation. May be repeated for credit.

### **NSC 302. Texas Interdisciplinary Plan: Critical Thinking Seminar.**

Restricted to students in the Texas Interdisciplinary Plan or in the Gateway Program. An examination of fundamental concepts in critical thinking, including the role of intellectual virtues, an analysis of the elements of thought, Socratic thinking, and the application of universal intellectual standards. Three lecture hours a week for one semester, with additional hours to be arranged. Liberal Arts 302 and Natural Sciences 302 may not both be counted. May not be repeated for credit.

### **NSC 303. Creative Communication of Scientific Research.**

Same as Communication 308. Learn to communicate about science, technology, and medicine to broad audiences in order to increase understanding of the impact these fields have on human lives. Three lecture hours a week for one semester. Communication 308 and Natural Sciences 303 may not both be counted.

### **NSC 108, 208, 308, 408, 508, 608, 708, 808, 908. Topics in Natural Sciences.**

Restrictions vary with the topic. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Varies with the topic.

**Topic 1: Capstone Prospectus Seminar.** Restricted to students enrolled in the Evidence and Inquiry Certificate program or in the Health Science Honors Program. Seminar to prepare students for their capstone project by helping them develop a research prospectus, identify faculty mentors, and develop a target list of journals for publication of a report on their research. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the pass/fail basis only.

**Topic 2: Evidence and Inquiry Proposal Seminar.** Enrollment restricted to the Evidence and Inquiry Certificate program. Development of compelling, cross-disciplinary, and academically feasible questions of interest outside student's major area of study; design a field of study around those questions; and write a field proposal for faculty review. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the pass/fail basis only.

### **NSC 109, 209, 309. Topics in Natural Science.**

Restrictions vary with the topic. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 3: Natural Sciences Ethics Seminar.**

**Topic 4: Polymathic Capstone Field Invention.** Restricted to students pursuing the Evidence and Inquiry Certificate. Guidance in developing a feasible interdisciplinary field of study and consulting with faculty who are familiar with the field. Substantive writing instruction to develop a proposal that describes and justifies the interdisciplinary field of study.

**Topic 5: Introduction to Applied Problem Solving.** Restricted to first-year students in the TIP Scholars program. Introduction to applied problem-solving with a focus on critical thinking and ethical reasoning on issues relevant to college students.

**Topic 6: Introduction to Forensic Science.** A multi-disciplinary approach to the field of forensic science. Examine the application of scientific knowledge in legal matters, both criminal and civil as well as the collection, examination, and evaluation of evidence. Explore different fields in forensic science, the educational requirements of

each, and real world applications. For each semester hour of credit earned, one lecture hour a week for one semester.

### **NSC 209P. Topics in Calculus for Emerging Scholars.**

Restricted to students in the Texas Interdisciplinary Plan Scholars Program. A workshop focusing on ideas more than computation and procedures, where students work in small groups on sets of problems designed to encourage advanced thinking about calculus. Three lecture hours a week for one semester. Mathematics 210T (Topic: Topics for Emerging Scholars) and Natural Sciences 209P may not both be counted. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in an approved calculus course.

### **NSC 110E. Internship in the Sciences.**

Restricted to students in the College of Natural Sciences. Practical work experience related to the student's area of interest in natural sciences. Internships may be on or off campus, paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. Students work in a professional environment and apply analysis, communication, and other academic skills to practical work. Individual instruction conducted on the Web. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Completion of fifteen semester hours of coursework and consent of instructor.

### **NSC 110H. Topics in Natural Sciences Honors Seminar.**

Restricted to students in honors programs in the College of Natural Sciences. Emphasis on student participation. Format may include student speakers, outside speakers, discussions, visits to laboratories, or other enrichment activities. The equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

**Topic 1: Dean's Scholars First-Year Seminar.** Restricted to students in the Dean's Scholars Program. The equivalent of one lecture hour a week for one semester. Offered on the pass/fail basis only.

**Topic 2: Health Science Scholars First-Year Seminar.** Restricted to students in the Health Science Scholars Program. The equivalent of one lecture hour a week for one semester. Offered on the pass/fail basis only.

**Topic 3: Polymathic Scholars First-Year Seminar.** Restricted to students in the Polymathic Scholars Program. The equivalent of one lecture hour a week for one semester. Offered on the pass/fail basis only.

### **NSC 311. Critical Reasoning.**

Restricted to students in the Texas Interdisciplinary Plan program. An examination of the fundamental concepts in critical reasoning, including the analysis of argument, application of intellectual standards, and the role of intellectual virtues. Three lecture hours a week for one semester, with additional hours to be arranged.

### **NSC 115. Women in Natural Sciences Seminar.**

The work and lives of women scientists in a sociocultural context. One lecture hour a week for one semester.

### **NSC 118C, 218C, 318C. Forum Seminar Series.**

Restricted to freshmen and sophomores. Lectures and discussions on various contemporary issues. Emphasis on multidisciplinary perspectives and critical discourse. For 118C, two lecture hours a week for eight weeks; for 218C, two lecture hours a week for one semester; for 318C, three lecture hours a week for one semester, or two lecture hours and one hour of supervised research a week for one semester. May be repeated for credit when the topics vary.

### **NSC 119, 219, 319, 419, 519, 619. International Learning Seminars.**

Restricted to students participating in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Natural Sciences 119, 219, 319, 419, 519, 619 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Varies with the topic.

### **NSC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Natural Science.**

To record credit earned while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the College of Natural Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studied program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **NSC 120E. Internship in the Sciences.**

Restricted to students in the College of Natural Sciences. Practical work experience related to the student's area of interest in Natural Sciences. Internships may be on or off campus, paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. Students work in a professional environment and apply analysis, communication, and other academic skills to practical work. Individual instruction conducted on the Web. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and consent of instructor.

### **NSC 321. Introduction to Peer Mentoring and Leadership.**

Restricted to students in the College of Natural Sciences. Explores current theory and research related to peer mentoring and leadership within higher education. Includes interactive lectures; and the opportunity for students to identify and work through ethical choices as peer leaders; to study leadership concepts such as conflict resolution, diversity, and group dynamics; to work collaboratively; and to conduct independent research. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor.

### **NSC 122, 222, 322, 422, 522, 622, 722, 822, 922. Natural Science Topics.**

Restrictions vary with the topic. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

### **NSC 123, 223, 323, 423, 523, 623, 723, 823, 923. Natural Sciences Topics.**

Restrictions vary with the topic. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

**Topic 1: Polymathic Capstone Thesis Preparation Seminar.** Restricted to students pursuing the Evidence and Inquiry Certificate. Supports the research process to identify a faculty mentor, define appropriate thesis topics, develop an annotated bibliography, draft a thesis proposal, and develop an initial plan for drafting thesis. Additional prerequisite: Natural Sciences 109 (Topic 4).

### **NSC 124, 224, 324, 424, 524, 624, 724, 824, 924. Natural Sciences Topics.**

Restrictions vary with the topic. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **NSC 325. Topics in Inventors Program Practicum.**

Design, research, prototype, and test a STEM-related product or solution. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **NSC 129, 229, 329, 429, 529, 629. International Learning Seminars.**

Restricted to students participating in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Natural Sciences 129, 229, 329, 429, 529, 629 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Varies with the topic.

### **NSC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Natural Science.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the College of Natural Science. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **NSC 371. Capstone Thesis Seminar.**

Directed reading, research, and discussion followed by the writing of a substantial thesis. Three lecture hours a week for one semester. Prerequisite: Natural Sciences 323 with a grade of at least B- and consent of instructor.

## **Graduate Courses**

### **NSC 088C. Science Communications Seminar.**

Same as Communication 088C. Restricted to students in the Moody College of Communication and the College of Natural Sciences. Professional development supplemental to primary studies. Designed to develop skills in the effective communication of scientific concepts. Hours to be arranged. Communication 088C and Natural Sciences 088C may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **NSC 088D. Science Communications Practicum.**

Same as Communication 088D. Restricted to students in the Moody College of Communication and the College of Natural Sciences. Professional development supplemental to primary studies. May be taken concurrently with the Science Communication Seminar. Opportunities to focus on skill development while receiving constructive assessment and evaluation. Hours to be arranged. Communication 088D and Natural Sciences 088D may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **NSC 088E. Professional Ethics and Social Responsibility in Research.**

Hours to be arranged. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **NSC 088G. Concentration on Science in Public Policy.**

Hours to be arranged. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **NSC 088J. Concentration in Science in Public Policy.**

Identify and articulate the relevance of scientific scholarship to public policy. Hours to be arranged. May be repeated for credit. Prerequisite: Graduate standing.

### **NSC 088L. Introduction to Evidence-Based Teaching.**

Designed for graduate students interested in learning to teach science and mathematics effectively in their own courses, rather than as Teaching Assistants. Subjects include defining learning objectives, designing learning tasks, observing classrooms to identify effective teaching strategies, and practice teaching. Intended for graduate students in the College of Natural Sciences. Hours to be arranged. Professional development supplemental to primary studies. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **NSC 088M. Mentoring Undergraduate Researchers.**

Aims to develop graduate students' skills in mentoring undergraduates and other junior participants in STEM research. Explores how to define suitable projects, establish appropriate relationships, set expectations, encourage communication, balance guidance with independence, and address diversity and ethical issues in mentoring. Hours to be arranged. Professional development supplemental to primary studies. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **NSC 088P. Leading People and Organizations.**

Restricted to students in the College of Natural Sciences. Professional development supplemental to primary studies. Designed for graduate students in STEM disciplines. Explores the knowledge and skills necessary for scientists to manage and lead effectively within organizations. Hours to be arranged. Prerequisite: Graduate standing.

### **NSC 088S. Strategic Management.**

Restricted to students in the College of Natural Sciences. Professional development supplemental to primary studies. Designed to help students develop general management skills such as managing change strategically, implementing strategy, and addressing long-term health of an organization. Hours to be arranged. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **NSC 088T. Mentored Teaching.**

Designed for graduate students who have completed NSC-088L Introduction to Evidence-Based Teaching, or its equivalent. Each student will design, teach, and conduct assessment of an instructional unit (~3 hours of class time) in an undergraduate CNS course, working in collaboration with the faculty member acting as instructor of record. Intended for graduate students in the College of Natural Sciences. Hours to be arranged. Professional development supplemental to primary studies. May be repeated with consent of instructor. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **NSC 088V. STEM Professional Development.**

Hours to be arranged. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **NSC 098D. Investigating Career Options for STEM Advanced Degrees.**

Hours to be arranged. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

## **Professional Courses**

# **Naval Science Courses**

## **Naval Science: N S**

### **Lower-Division Courses**

#### **N S 000. Drill.**

Three laboratory hours a week for one semester.

#### **N S 302. Introduction to Naval Science.**

A general introduction to sea power and the naval service, including the mission, organization, regulations, warfare components, and personnel programs. Three lecture hours a week for one semester.

#### **N S 312. Sea Power and Maritime Affairs.**

A consideration of the influence of sea power, naval history, and maritime affairs on current events and national policy. Three lecture hours a week for one semester. Prerequisite: Consent of instructor.

#### **N S 315. Naval Engineering.**

Introduction to types, structures, and purposes of naval ships and systems. Three lecture hours a week for one semester. Naval Science 603 and 315 may not both be counted. Offered on the letter-grade basis only.

#### **N S 316. Naval Weapons Systems.**

Introduction to types, capabilities, and purposes of Naval weapons systems. Three lecture hours a week for one semester. Naval Science 603 and 316 may not both be counted. Offered on the letter-grade basis only.

## **Upper-Division Courses**

#### **N S 326. Evolution of Warfare.**

Explores the forms of warfare employed by great leaders in history as they relate to the evolution of warfare. Three lecture hours a week for one semester. Prerequisite: Consent of instructor.

#### **N S 329. Navigation and Naval Operations I.**

An introduction to piloting, a survey of navigational aids, and a study of the Rules of the Nautical Road. Three lecture hours a week for one semester.

#### **N S 330. Leadership and Ethics.**

Principles of leadership and ethics reinforced through seminar discussion and case studies. Discussion of the duties and responsibilities of a naval officer. Three lecture hours a week for one semester. Prerequisite: Naval Science 335 and consent of instructor.

#### **N S 335. Leadership and Management.**

Study of leadership and management theory in organizations, with emphasis on examining the leadership process in the context of the dynamic interaction of the leader, the followers, and the situation. Three lecture hours a week for one semester. Prerequisite: Consent of instructor.

#### **N S 336. Fundamentals of Maneuver Warfare.**

Intended for Naval ROTC students. Focuses on the evolution of the United States Marine Corps as a maneuver warfare organization, with particular attention devoted to the structure and capabilities of the present day USMC as a forward deployed and rapid deployment force and the development of Expeditionary Maneuver Warfare concepts. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **N S 362. Amphibious Warfare.**

Defines the concept of amphibious warfare, explores its doctrinal origins, and traces its evolution as an element of naval policy during the twentieth century. Three lecture hours a week for one semester.

### **N S 369. Navigation and Naval Operations II.**

Study of the celestial sphere and nautical astronomy to determine positions on the earth by mathematical analysis, and an introduction to relative motion and the maneuvering board. Three lecture hours a week for one semester.

## **Graduate Courses**

## **Professional Courses**

# **Neuroscience Courses**

## **Neuroscience: NEU**

### **Lower-Division Courses**

### **Upper-Division Courses**

#### **NEU 320. Introduction to Neuroscience.**

Introduction to the nervous system with an emphasis on brain organization, neuron physiology, perceptual systems, and motor systems. Designed for non-neuroscience majors. Three lecture hours a week for one semester.

#### **NEU 330. Neural Systems I.**

Introduction to the nervous system with an emphasis on brain organization, neuron physiology, perceptual systems, and motor systems. Intended for neuroscience majors and those considering neuroscience as a major. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 337 (Topic: Neural Systems I), 371M, Neuroscience 330, 365R, 371M.

#### **NEU 335. Neural Systems II.**

Introduction to the nervous system with an emphasis on neural development and on the neural mechanisms of memory, emotions, and other higher cognitive functions. Intended for neuroscience majors and those considering neuroscience as a major. Three lecture hours a week for one semester. Biology 337 (Topic: Neural Systems II) and Neuroscience 335 may not both be counted. Prerequisite: A grade of at least C- in the following: Biology 206L, and 311D or 325H, Mathematics 408C or 408S, and Neuroscience 330.

#### **NEU 137, 237, 337, 437. Selected Topics in Neuroscience.**

Topics include recent developments and research methods in the field of neuroscience. For each semester hour of credit earned, one lecture hour a week for one semester. Some topics may require additional hours. May be repeated for credit when the topics vary. Prerequisite: Neuroscience 335 with a grade of at least C-; additional prerequisites vary with the topic.

**Topic 3: Neuroscience for Plan II.** Restricted to Plan II students. Neuroscience 337 (Topic: Tpcs in Neuroscience: Plan II) and 137, 237, 337, 437 (Topic 3) may not both be counted.

**Topic 6: Rigor in Neuroscience.** Explore the application and integration of many different approaches, from molecules to behavior. Includes statistics, experimental design, and philosophy of science with a mixture of discussion and hands-on training. Neuroscience 337 (Topic: Rigor in Neuroscience) and 137, 237, 337, 437 (Topic 6) may not both be counted.

**Topic 7: Experimental Neurobiology.** Examine neocortical cell and circuits function. Present and critique research goals and strategies.

Neuroscience 337 (Topic: Adv Tpcs: Exprmntl Neurobio) and 137, 237, 337, 437 (Topic 7) may not both be counted.

#### **NEU 340. Neural Systems III: Quantitative Tools.**

Introduction to quantitative approaches central to the study of the brain, with an emphasis on mathematical and statistical methods required for the rigorous design and interpretation of neuroscience experiments and data. Intended for neuroscience majors and those considering neuroscience as a major. Three lecture hours a week for one semester. Prerequisite: Neuroscience 330 with a grade of at least C-.

#### **NEU 365D. Principles of Drug Action.**

Introduction to the basic principles of pharmacology; including how drugs get into the body, exert their actions, and are metabolized and excreted. Three lecture hours a week for one semester. Prerequisite: Neuroscience 335 with a grade of at least C-

#### **NEU 365L. Neurobiology Laboratory.**

An introduction to physiological, morphological, and molecular techniques used for analysis of the nervous system. Experiments and computer simulations illustrate basics of information processing by the nervous system. Four laboratory hours and one discussion hour a week for one semester. Prerequisite: A grade of at least C- in Neuroscience 335 and Physics 303L, 316, or 317L.

#### **NEU 365N. Nerve Regeneration in Invertebrates and Vertebrates.**

Explore degeneration and regeneration in nervous systems following traumatic injury in the context of invertebrate versus vertebrate, peripheral nervous system versus central nervous system, axonal versus cell body, and the role of glia versus neurons. Three lecture hours a week for one semester. Neuroscience 337 (Topic 2) and 365N may not both be counted. Prerequisite: Neuroscience 335 with a grade of at least C-.

#### **NEU 365P. Programming and Data Analysis for Modern Neuroscience.**

Explore the basics of programming, statistics, and machine learning, and apply these techniques to the analysis of data from neuroscience experiments. Three lecture hours a week for one semester. Neuroscience 337 (Topic 4) and 365P may not both be counted. Prerequisite: Neuroscience 335 with a grade of at least C-

#### **NEU 365T. Neurobiology of Disease.**

The neurobiological basis of disorders of the brain, with the main focus on mental illness. Emphasizes the neural circuitries and neurochemical events that underlie specific mental processes and behaviors. Three lecture hours a week for one semester. Prerequisite: Neuroscience 335 with a grade of at least C-

#### **NEU 365V. From the Eye to the Brain.**

Explore the physiology of the visual pathway and its relationship to visual perception. Examine the prospects for prevention of blinding eye diseases and the adaptations of primate vision for survival in natural environments. Three lecture hours a week for one semester. Neuroscience 337 (Topic 1) and Neuroscience 365V may not both be counted. Prerequisite: Neuroscience 335 with a grade of at least C-

#### **NEU 365W. Neurobiology of Addiction.**

Study of the neurobiology of neurotransmitters, and the influence of alcohol and drugs of abuse on neurotransmitters. Three lecture hours a week for one semester. Prerequisite: Neuroscience 335 with a grade of at least C-

### **NEU 366C. Ion Channels and the Molecular Physiology of Neuronal Signaling.**

Explores the role of molecular conformational changes in higher-level neuronal function and sensory transduction, including the generation and regulation of diverse types of neuronal signaling characteristics. Emphasizes a quantitative approach and the use of models to study function. Three lecture hours a week for one semester. Prerequisite: A grade of at least C- in Neuroscience 335 and Physics 303L, 316, or 317L.

### **NEU 366D. Synaptic Physiology and Plasticity.**

Detailed study of the physiology of synaptic transmission in the mammalian central nervous system. Covers dendritic integration and various forms and mechanisms of synaptic plasticity. Three lecture hours a week for one semester. Prerequisite: A grade of at least C- in Neuroscience 335 and Physics 303L, 316, or 317L.

### **NEU 366E. Visual Neuroscience.**

Physiology of the visual pathway and its relationship to visual perception; prospects for prevention of blinding eye diseases; adaptations of primate vision for survival in natural environments. Laboratory experiments illustrate basic mechanisms by having students measure their own visual and sensorimotor function. One and one-half lecture hours and three laboratory hours a week for one semester. Neuroscience 366E and 366P may not both be counted. Prerequisite: Statistics and Data Sciences 328M with a grade of at least C- and Biomedical Engineering 365R or Neuroscience 335 with a grade of at least C-.

### **NEU 466G. Functional and Synaptic Neuroanatomy.**

Neuroanatomy and function of synapses as a basis for brain function and behavior. Examine the ultrastructure and function of synapses, dendrites and axons underlying basic synaptic transmission and plasticity. Laboratory projects involve three-dimensional reconstructions from serial section electron microscopy. Three lecture hours and one-and-one-half laboratory hours a week for one semester. Only one of the following may be counted: Biology 337 (Topic: Neurobiology of Synaptic Circuits), 337 (Topic: Human Neuroanatomy), Neuroscience 466G. Prerequisite: Neuroscience 335 with a grade of at least C-.

### **NEU 366L. Neuroimaging Laboratory.**

Basic principles of image formation and techniques of fluorescent imaging and confocal laser-scanning microscopy. Includes image processing and analysis to extract quantitative information from digital images. Survey of imaging techniques, including electron microscopy and functional MRI. One lecture hour and four laboratory hours a week for one semester. Prerequisite: A grade of at least C- in Neuroscience 335 and Physics 303L, 316, or 317L.

### **NEU 466M. Quantitative Methods In Neuroscience I.**

Overview of the basic mathematical and computational tools central to the analysis of neural systems in a laboratory setting. Subjects include linear algebra, differential equations, filtering, correlation, probability, and inference, with an emphasis on quantitative methodology and applications to neuroscience. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Mathematics 408D or 408M, and Neuroscience 335 with a grade of at least C- in each.

### **NEU 366N. Quantitative Methods in Neuroscience II.**

Continuation of Neuroscience 466M. Introduction to basic mathematical and computational tools for the analysis of neural systems. Subjects include computational and quantitative methods, with an emphasis on their applications to neuroscience. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Neuroscience 466M with a grade of at least C-.

### **NEU 366P. Laboratory in Psychophysics.**

Studies the principles of experimental design, execution, and interpretation by having students measure their own perceptual and behavioral responses to visual and auditory tests. Includes data analysis, statistical significance, and interpretation. Five laboratory hours a week for one semester. Neuroscience 366E and 366P may not both be counted. Prerequisite: Neuroscience 335 with a grade of at least C-.

### **NEU 366S. Neuromolecular Genetics and Disease Laboratory.**

Explores techniques used to study the molecular genetic basis for nervous system function and disease with a powerful invertebrate model system. Subjects will range from studying the conserved molecular basis for our senses and male/female-specific behaviors, to exploring how mutations of conserved neural genes cause neurological disorders, such as Parkinson's disease and Alzheimer's disease. Six laboratory hours a week for one semester. Prerequisite: Neuroscience 335 with a grade of at least C-.

### **NEU 367F. Foundations of Human Neuroimaging.**

Survey of methods for neuroimaging research. Describes the physics of MRI image acquisition, the physiology of neural responses, and the design and analysis of MRI studies. Three lecture hours a week for one semester. Prerequisite: Neuroscience 335 with a grade of at least C-.

### **NEU 367S. Analytical Skepticism.**

Examine basic principles that allow accurate interpretation of scientific data, with an emphasis on neuroscience data. Three lecture hours a week for one semester. Neuroscience 337 (Topic 5) and 367S may not both be counted. Prerequisite: Neuroscience 335 with a grade of at least C-.

### **NEU 367V. Evolutionary Neurobiology.**

Examination of the nervous system in an evolutionary context. Three lecture hours a week for one semester. Prerequisite: Biology 325 or 325H and Neuroscience 335 with a grade of at least C-.

### **NEU 367W. Laboratory in Behavioral Neuroscience.**

Behavioral experiments with rodents aimed at elucidating the neural mechanisms of psychological processes such as memory, anxiety, and incentive motivation. One lecture hour and five laboratory hours a week for one semester. Biology 367W and Neuroscience 367W may not both be counted. Prerequisite: Neuroscience 335 with a grade of at least C-.

### **NEU 170C, 270C. Topics in Neuroscience.**

Supervised study of selected topics in Neuroscience, by individual arrangement with the instructor. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Neuroscience 335 with a grade of at least C-.

### **NEU 371M. Comparative Neuroscience.**

The nervous system, with emphasis on vertebrate neurobiology. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 371M, Neuroscience 330, 365R, 371M. Prerequisite: Neuroscience 335 with a grade of at least C-.

### **NEU 177, 277, 377, 477. Undergraduate Research.**

Laboratory or research in the various fields of neuroscience under the supervision of one or more faculty members. Supervised individual research. Up to three semester hours may be counted toward the major requirement for the Bachelor of Science in Neuroscience. May be repeated for credit. Prerequisite: Neuroscience 335 with a grade of at least C-.

### **NEU 179H, 279H, 379H. Honors Tutorial Course.**

Restricted to students in the honors program in neuroscience. Original laboratory research project under the direction of a faculty mentor leading to a thesis or research presentation. The equivalent of one, two, or three lecture hours a week for one semester. May be repeated for credit, but no more than six hours may be counted toward a degree in neuroscience. Prerequisite: Consent of student's research supervisor and the departmental honors adviser.

## **Graduate Courses**

### **NEU 380C. Computational Neuroscience.**

Introduction to computational neuroscience. Examines neural network and learning theory, coding, dynamics, memory, computation and learning in recurrent and feed forward neural circuits. Three lecture hours a week for one semester. Only one of the following may be counted: Electrical Engineering 385V (Topic: Computational Neuroscience), Neuroscience 380C, 385L (Topic: Computational Neuroscience). Prerequisite: Graduate standing, some differential equations and linear algebra, and consent of instructor.

### **NEU 380E. Vision Systems.**

Introduction to the anatomy, physiology, and psychophysics of human vision from an information-processing and computational perspective. Three lecture hours a week for one semester. Neuroscience 380E and Psychology 380E may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **NEU 080M. Dual MD/PhD Program with UT Medical Branch.**

Preclinical medical study at the University of Texas Medical Branch at Galveston. May not be taken concurrently with another course at the University of Texas at Austin. Prerequisite: Graduate standing and admission to the MD/PhD dual degree program in neuroscience.

### **NEU 380U. Brain, Behavior, and Evolution.**

Same as Biology 380U. Integrative approaches to the study of brain and behavior within an evolutionary and comparative framework. Specifically, the integration of neuroscience, organismal behavior and physiology, behavioral ecology, evolutionary development, experimental evolution, molecular biology, genetics, genomics, systems biology, and bioinformatics. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 380U, 384K (Topic: Brain, Behavior, and Evolution), Neuroscience 380U, 385L (Topic: Brain, Behavior, and Evolution). Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### **NEU 380V. Biological Foundations of Decision Making.**

Same as Biology 380V. Explores the mechanisms biological organisms use to make decisions and how these mechanisms evolved. Defines a conceptual framework for decision making that can be applied across levels of biological organization. Surveys current research on how animals make decisions using genetic, neurobiological, and evolutionary approaches. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 380V, 384K (Topic: Biological Foundations of Decision Making), Neuroscience 380V, 385L (Topic: Biological Foundations of Decision Making). Prerequisite: Graduate standing.

### **NEU 381G. Grant Writing in the Behavioral and Biological Sciences.**

Same as Psychology 381G. Introduction to grant writing in the behavioral and biological sciences and development of grant writing skills. Subjects include: finding grant opportunities, planning proposal activities, successful grant writing strategies, and how to talk to grant program officers. Write grant proposals (e.g., proposals to federal agencies

such as NSF or NIH) and revise proposals based on peer and instructor feedback. Explore how grant proposals are reviewed by participating in a mock review session. Three lecture hours a week for one semester. Only one of the following may be counted: Neuroscience 381G, 394P (Topic: Grant Writing in the Behavioral and Biological Sciences), Psychology 381G, 394U (Topic: Grant Writing in the Behavioral and Biological Sciences). Prerequisite: Graduate standing and consent of instructor.

### **NEU 381N. Basic Processes of Nerve Cells.**

Same as Biology 381N. Degeneration and regeneration in nervous systems following traumatic injury; invertebrate versus vertebrate, peripheral nervous system versus central nervous system, axonal versus cell body, role of glia versus neurons. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 381K (Topic 10), 381N, Neuroscience 381N, 385L (Topic 1). Prerequisite: Graduate standing.

### **NEU 381V. Mechanisms of Vision.**

Physiology of the eye, the retina, and the visual pathways. Prospects for nutritional prevention of blinding eye diseases. Functional and ecological adaptations of primate and nonprimate vision. Three lecture hours a week for one semester. Only one of the following may be counted: Neuroscience 380G, 381V, 385L (Topic: Visual Neuroscience) Prerequisite: Graduate standing and consent of instructor.

### **NEU 382E. Epigenetics.**

Same as Biology 382E. Study of how epigenetic modifications are covalent modifications of DNA or histones that cause changes in gene expression and how epigenetic modifications appear to be a method through which nurture or the environment can influence nature. Emphasis on how experience or environmental factors epigenetically modify health or behavior of animals. Three lecture hours a week for one semester. Only one of the following may be counted: Biology 381K (Topic: Epigenetics), 382E, Neuroscience 382E. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### **NEU 182T, 282T, 382T, 482T. Principles of Neuroscience I.**

Examines the core material on essential topics in molecular and cellular neuroscience, together with review and discussion of important early studies and contemporary literature. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **NEU 383C. Functional Neuroanatomy.**

An examination of the anatomy of the brain and spinal cord, emphasizing connections and functions of neural systems. Three lecture hours a week for one semester. Neuroscience 383C and Psychology 383C may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **NEU 383D. Neuropharmacology.**

An advanced survey of neurotransmitters and systems in the brain. Emphasis is on pharmacological analysis at the molecular level to determine mechanisms of action of drugs that act on the brain. Three lecture hours a week for one semester. Neuroscience 383D and Pharmacy Graduate Studies 383D may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **NEU 383E. Neuropharmacology II.**

Same as Pharmacy Graduate Studies 383E. Explore neuropharmacological concepts related to brain development, organization and anatomy; neuroendocrinology, neuroimmunology and neuroinflammation; gut-brain axis; neurobiology of addiction; and others. Three lecture hours a week for one semester. Only one of the following

may be counted: Neuroscience 383E, 385L (Topic: Neuropharmacology II), Pharmacy Graduate Studies 383E. Prerequisite: Graduate standing and consent of instructor.

### **NEU 383M. Data Analysis and Statistics for the Neurosciences.**

Statistical applications relevant to areas of research in neuroscience. Three lecture hours a week for one semester. Prerequisite: Graduate standing, an undergraduate statistics course, and consent of instructor.

### **NEU 183T, 283T, 383T, 483T. Principles of Neuroscience II.**

Examines the core material on essential subjects in systems and behavioral neuroscience, together with review and discussion of important early studies and contemporary literature. For every hour of credit earned, the equivalent of one lecture hour a week for one semester. Neuroscience 383T and Psychology 383T may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **NEU 384C. Bootstrap Statistics.**

Same as Psychology 384C. An introduction to modern methods of statistical analysis based on numerical computer simulation. Covers a range of common data analysis situations drawn mainly from the fields of neuroscience and experimental psychology. Techniques include point estimation, two-group and multiple group experiments, regression and curve fitting, and Bayesian analysis. Three lecture hours a week for one semester. Only one of the following may be counted: Neuroscience 384C, 385L (Topic: Bootstrap Statistics), Psychology 384C, 394U (Topic: Bootstrap Statistics). Prerequisite: Graduate standing, an undergraduate statistics course, and consent of instructor.

### **NEU 384M. Advanced Statistics: Inferential.**

Same as Psychology 384M. Covers t-test, chi-square, analysis of variance, and nonparametric tests. Three lecture hours a week for one semester. Prerequisite: Graduate standing, an undergraduate statistics course, and consent of instructor.

### **NEU 185D. Responsible Conduct of Science.**

Ethical considerations in the conduct of science, including issues of animal welfare, data analysis, fraud, publications, misconduct, intellectual property, grants, peer review, and mentor responsibility. One lecture hour a week for one semester. Neuroscience 185D and Pharmacy Graduate Studies 185D may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **NEU 185L, 285L, 385L, 485L. Topics in Neuroscience.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Additional laboratory hours may vary with the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in biology; and consent of instructor.

**Topic 3: Addiction Biology.** Current research in addiction biology. Students present individual research papers and reports. Three lecture hours a week for one semester. Biology 381K (Topic 8) and Neuroscience 385L (Topic 3) may not both be counted.

**Topic 5: Behavioral Neuroendocrinology.** Current research in neuroendocrinology, including action of neuroendocrine systems on behavior, assays of substances in the blood to identify gene products, and examination of stress from neuroendocrine, behavioral, health, and immunity perspectives. Three lecture hours a week for one semester. Only one of the following may be counted: Neuroscience 385L (Topic 5), 394P (Topic: Behavioral Neuroendocrinology), Psychology 394P (Topic 17), 394P (Topic: Behavioral Neuroendocrinology).

**Topic 6: Foundations of Human Neuroimaging.** A survey of the foundations for neuroimaging research with a focus on cognitive neuroscience. Describes the physical methods of image acquisition and physiological mechanisms used for functional imaging. Emphasis on magnetic resonance methods for structural and functional imaging. Surveys other imaging modalities, including positron emission tomography (PET), optical, and EEG/MEG electrical source localization. Only one of the following may be counted: Biology 381K (Topic: Foundations of Neuroimaging), Neuroscience 385L (Topic 6), 394P (Topic: Foundations of Magnetic Resonance Imaging Research), Psychology 394P (Topic: Foundations of Magnetic Resonance Imaging Research), 394P (Topic 13).

**Topic 7: Topics in Vision and Hearing.** Current research in human vision and hearing. Three lecture hours a week for one semester. Neuroscience 385L (Topic 7) and Psychology 394U (Topic 8) may not both be counted.

**Topic 8: Ion Channels and Neuronal Signaling.** Molecular properties of ion channels and the mechanisms of electrical signaling in neurons and other excitable cells. Three lecture hours a week for one semester.

**Topic 9: Synaptic Physiology and Plasticity in the Central Nervous System.** Detailed background in the physiology and plasticity of synaptic transmission in the mammalian central nervous system. Three lecture hours a week for one semester.

**Topic 12: Quantifying Brain Structure.** Concepts and hands-on applications for quantifying aspects of brain and cellular structure, with a focus on stereological approaches. Three lecture hours a week for one semester. Only one of the following may be counted: Neuroscience 385L (Topic 12), 394P (Topic: Quantitative Methods for Brain Structure), Psychology 394P (Topic 16: Quantifying Brain Structure), 394P (Topic: Quantitative Methods for Brain Structure).

**Topic 13: Neurobiology of Disease.** Examines the neurobiological basis of disorders of the brain, with a focus on mental illness. Emphasis on the neural circuitries and neurochemical events that underlie specific mental processes and behaviors. Neuroscience 385L (Topic: Neurobiology of Disease) and Neuroscience 385L (Topic 13) may not both be counted.

### **NEU 386D. Multivariate Pattern Analysis.**

Same as Psychology 386D. Explores cutting-edge techniques for finding meaningful patterns in large, noisy brain data sets, and how to use these techniques to address a variety of questions in cognitive neuroscience. Three lecture hours a week for one semester. Only one of the following may be counted: Neuroscience 386D, 394P (Topic: fMRI Brain Decoding), Psychology 386D, 387D. Prerequisite: Graduate standing and consent of instructor.

### **NEU 386G, 486G. Functional and Synaptic Neuroanatomy.**

Neuroanatomy and functional connectivity as a basis for brain function and behavior examined from gross structure, cytology and nanoscale synaptic connectivity. Subjects includes somatosensory, motor, visual, auditory, olfactory, taste, limbic, vestibular, hypothalamus, and other systems in addition to the synaptic basis of learning and memory, fear, sleep, stress, and synaptic changes during development, aging, mental retardation, and neurological diseases. Laboratory projects include three-dimensional reconstructions from serial section electron microscopy. For Neuroscience 386G, two lecture hours and one and one half laboratory hours a week for one semester; for Neuroscience 486G, three lecture hours and one and one half laboratory hours a week for one semester. Only one of the following may be counted: Neuroscience 385L (Topic 10), 386G, 486G. Prerequisite: Graduate standing and principles of neuroscience, vertebrate physiology, or other introductory neuroscience course; or consent of instructor.

### **NEU 288M. Fundamentals of Fluorescence Microscopy.**

Same as Pharmacy Graduate Studies 288M. Explores optics, image formation, functioning of epifluorescent and confocal microscopes, detector technology (cameras and photomultiplier tubes), immunofluorescence techniques, image analyses, and image presentation for publication. Study of the technology and science behind widely-used high-end microscope systems. One lecture hours and two lab hours a week for one semester Only one of the following may be counted: Neuroscience 285L (Topic: Fndmntls of Fluorscnc Mircspsy), 288M, Pharmacy Graduate Studies 288K (Topic: Fndmntls of Fluorscnc Mircspsy), 288M. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### **NEU 190, 290, 390. Research.**

The equivalent of one, two, or three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and fifteen semester hours of coursework in neuroscience; students must contact the Neuroscience Graduate Studies Office before registering.

### **NEU 191. Graduate Seminar in Neuroscience.**

Presentations and discussions of research topics in neuroscience. One lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **NEU 391N. Learning and Memory.**

Same as Psychology 391N. Presentation of contemporary approaches to the study of conditioning and learning at the behavioral level. Focuses on empirical data and theoretical analysis of acquisition and performance in Pavlovian and instrumental conditioning. Includes discussion of habituation, sensitization, stimulus control, and other paradigms for studying cognitive processes in nonverbal organisms. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **NEU 394N. Neural Networks.**

Same as Computer Science 394N. Biological information processing; architectures and algorithms for supervised learning, self-organization, reinforcement learning, and neuro-evolution; theoretical analysis; hardware implementations and simulators; applications in engineering, artificial intelligence, and cognitive science. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 394N, Neuroscience 394N, 394P (Topic: Neural Networks). Prerequisite: Graduate standing.

### **NEU 394P. Seminars in Neuroscience.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Current Topics in Behavioral Neuroscience.** Brain-behavior relationships, particularly recent research in behavioral neuroscience, including the anatomical and neurochemical mechanisms of behavioral events, and behavioral influences on the brain. Neuroscience 394P (Topic 1) and Psychology 394P (Topic 1) may not both be counted.

**Topic 3: Neurobiology of Learning and Memory.** Neuroanatomical systems that are functionally related to basic forms of learning and memory in mammals. Neuroscience 394P (Topic 3) and Psychology 394P (Topic 3) may not both be counted.

**Topic 4: Advanced Topics in Neuroanatomy.** Neuroanatomical systems and function across species. Basic forms of neuroanatomy in mammals. Neuroscience 394P (Topic 4) and Psychology 394P (Topic 7) may not both be counted.

### **Topic 7: Analysis of Functional Magnetic Resonance Imaging Data.**

Functional magnetic resonance imaging experimental design and analysis. Additional prerequisite: Basic knowledge of functional neuroanatomy.

**Topic 8: Topics in Systems Neuroscience.** Focuses on one or two topics and examines them in depth through group discussions of key scientific manuscripts. Discusses both classical studies and contemporary research. Only one of the following may be counted: Neuroscience 394P (Topic 8), Psychology 394U (Topic 14), 394U (Topic: Advanced Topics in Systems Neuroscience).

**Topic 9: Perception and Action.** Current topics in visually guided behavior, including eye movements, attention, and motor control, from behavioral, computational, and neurophysiological approaches. Neuroscience 394P (Topic 9) and Psychology 394U (Topic 16) may not both be counted.

**Topic 10: Statistical Methods in Computational Neuroscience.** Same as Psychology 394U (Topic 19: Statistical Methods in Computational Neuroscience). Introduction to statistical and computational methods for understanding information processing in the nervous system, with emphasis on neural coding and statistical modeling of neural responses. Three class hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **NEU 396D. Clinical Psychopharmacology.**

Same as Psychology 396D. Recent findings concerning the mechanisms of action and the behavioral effects of psychoactive drugs, particularly those used in psychiatry. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **NEU 698. Thesis.**

The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in neuroscience and consent of the graduate adviser; for 698B, Neuroscience 698A.

### **NEU 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

## **Norwegian Courses**

### **Norwegian: NOR**

#### **Lower-Division Courses**

##### **NOR 604. Accelerated First-Year Norwegian.**

Six lecture hours a week for one semester, with optional laboratory available.

##### **NOR 612. Accelerated Second-Year Norwegian.**

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Norwegian 604.

##### **NOR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Norwegian.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser for the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## Upper-Division Courses

### NOR 327. Advanced Norwegian I.

Norwegian language and culture with a focus on the skills of speaking, comprehension, reading, and writing Norwegian. Three lecture hours a week for one semester. Norwegian 327 and Scandinavian 369 (Topic: Advanced Norwegian Language and Culture I) may not both be counted. Prerequisite: Norwegian 612 with a grade of at least C.

### NOR 328. Advanced Norwegian II.

Continuation of Norwegian 327. Further study of Norwegian reading, writing, speaking, and aural comprehension. Readings include contemporary journalism, fiction, and other texts that promote the understanding of a modern Scandinavian society. Three lecture hours a week for one semester. Norwegian 328 and Scandinavian 369 (Topic: Advanced Norwegian Language and Culture II) may not both be counted. Prerequisite: Norwegian 327 with a grade of at least C.

### NOR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Norwegian.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### NOR 130D. Norwegian across Disciplines.

Read and discuss Norwegian language materials related to the subject matter of another designated course. One lecture hour per week for one semester. May be repeated for credit. Prerequisite: Three semester hours of upper-division coursework in Norwegian with a grade of at least C.

### NOR 379. Conference Course in Norwegian Language or Literature.

Supervised individual study of selected problems in Norwegian language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## Graduate Courses

## Professional Courses

## Nursing Courses

### Nursing: N

#### Lower-Division Courses

##### N 107, 207, 307. Topics in Nursing.

One, two, or three lecture hours a week for one semester, with one discussion hour a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Women's Reproductive Health for Nonscience Majors.** Same as Sociology 310S and Women's and Gender Studies 301 (Topic 7). Overview of contemporary women's reproductive health issues, with emphasis on historical, physiological, psychosocial, and cultural influences that affect the reproductive health of women during adolescence, the childbearing years, and midlife. Three lecture hours a week for one semester. Only one of the following may be counted: Nursing 307 (Topic 1), Sociology 308 (Topic 2), 310S, Women's and Gender Studies 301 (Topic 7). Prerequisite: One year of high school biology, or Biology 301L or 309D.

##### N 309. Global Health.

Overview of global health, with emphasis on the determinants of health, health indicators, human rights, globalization, current socioeconomic factors, health care systems, and public health systems. Three lecture hours a week for one semester.

##### N 310. Communication in Health Care Settings.

Introduction to theories and models of communication in relation to health care; basic factors affecting interpersonal communication in health care settings. Three lecture hours a week for one semester. Required for nursing majors.

##### N 117H. Introduction to Nursing Scholarship: Honors Seminar.

Introduction to the nature of nursing scholarship, along with related research and clinical and educational career opportunities. Topics include leadership, research, and ethics as they relate to nursing. One lecture hour a week for one semester. Prerequisite: Admission to the School of Nursing Honors Program.

##### N 119, 219, 319, 419, 519, 619. International Learning Seminars.

Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Nursing 119, 219, 319, 419, 519, 619 and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## Upper-Division Courses

##### N 320. Introduction into Patient-Centered Nursing Care.

Examines the profession of nursing and introduces the concept of nursing process as a framework for patient-centered care of younger and older adults. Special emphasis will be placed on topics that apply to the bio-psycho-social-spiritual needs of the aging adult. Three lecture hours a week for one semester. Nursing 227 and 320 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Biology 326M, 446L, Nutrition 306, Psychology 301; credit or registration for Biology 365S and 165U.

##### N 321. Ethics of Health Care.

Examination of ethical issues of health care and related legal concerns; contradictions, inconsistencies, and competing views that lead to dilemmas in health care. Three lecture hours a week for one semester. Nursing 321 and 321H may not both be counted. Prerequisite: Rhetoric and Writing 306.

##### N 321H. Ethics of Health Care: Honors.

Ethical issues in health care and related legal concerns; contradictions, inconsistencies, and competing views that lead to dilemmas in health care. Emphasis on resolving ethical dilemmas through ethical reasoning and ethical obligations in health professional-patient relationships; and just allocation of scarce health care resources. Three lecture hours a week for one semester. Nursing 321 and 321H may not both be counted. Prerequisite: Admission to the School of Nursing Honors Program, or consent of instructor.

##### N 223, 323. Genetics in Health Care.

The integration of genetic information into nursing practice, including ethical, legal, psychological, and social issues. For each semester hour of credit earned, one lecture hour a week for one semester. Nursing 223 and 323 may not both be counted. Offered on the letter-grade basis only. Prerequisite: BIO 311C or consent of instructor

### **N 224. Health Assessment Skills.**

Discussion, application, and documentation of health assessment skills needed to provide data for health promotion and nursing interventions. One and one-half lecture hours and one laboratory hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Biology 326M, 446L and Nursing 310; credit or registration for Nursing 320.

### **N 325. Adult Health Nursing I.**

Discussion of the concepts necessary to promote and restore the health of adults with biological problems including related physiological and psychological responses. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Biology 365S and 165U, Nursing 320, 224, and 127P.

### **N 325P. Adult Health Nursing I (Practicum).**

For nursing majors admitted to the professional sequence. Application of the concepts and theories necessary to promote and restore health of adults with biological problems; related physiological and psychological responses. Nine laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Nursing 325.

### **N 127P. Clinical Nursing Skills I (Practicum).**

Laboratory instruction and practice in clinical nursing skills. Two laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Biology 326M and 446L; concurrent enrollment in Nursing 320.

### **N 129M, 229M, 329M, 429M, 529M, 629M. International Learning Seminars.**

Restricted to students participating in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of completing academic work in international locations. For each semester hour of credit earned, one lecture hour a week for one semester. Nursing 129M, 229M, 329M, 429M, 529M, 629M and Undergraduate Studies 119 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **N 137, 237, 337. Independent Study.**

Study in a specific area; topic and mode of study are agreed upon by student(s) and instructor. The equivalent of one, two, or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: A University grade point average of at least 2.80 and consent of instructor.

### **N 338. Complementary and Alternative Medicine in Health Care.**

Overview of representative Complementary and Alternative Medicine (CAM) modalities and their role in shaping an emerging wellness-oriented, patient-centered model of care. Evaluation of current research evidence of CAM therapies in four domains: mind-body medicine, biologically based practices, manipulative and body-centered therapies, and energy medicine. Includes a hands-on experiential component for familiarization of some fundamental CAM concepts. Three lecture hours a week for one semester. Nursing 347 (Topic: Compl/Altern Med in Hlth Care) and Nursing 338 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **N 147, 247, 347. Specialized Topics in Nursing.**

The equivalent of one, two, or three lecture hours a week for one semester; some topics require up to thirty-nine hours of fieldwork a week for one semester. May be repeated for credit when the topics vary.

Prerequisite: Enrollment in the upper-division sequence; some topics also require consent of instructor.

**Topic 1: Informatics in Health Care and Nursing.**

**Topic 2: Acute Care Pediatrics.**

**Topic 3: Cardiovascular Nursing.**

**Topic 4: Childbearing Nursing Elective.**

**Topic 5: Critical Care Nursing.**

**Topic 6: High-Risk Maternity.**

**Topic 7: Pediatrics.**

**Topic 8: Perioperative Nursing.**

**Topic 9: Special Topics in Pediatrics.**

**Topic 10: Child Wellness Center (Practicum).**

**Topic 11: Children with Chronic Illness in the Community.**

**Topic 12: Clinical Nursing Preceptorship.**

**Topic 13: Community-Oriented Ambulatory Nursing.**

**Topic 14: Genetics in Clinical Nursing (Practicum).**

**Topic 15: Home Health Nursing.**

**Topic 16: Pediatrics in the Community.**

**Topic 17: Well Children in the Community.**

### **N 250. Interprofessional Collaborative Practice.**

Focuses on developing the competencies needed for interprofessional collaborative practice among health care professionals. Core interprofessional competencies addressed include: values and ethics for interprofessional practice; knowledge of roles and responsibilities of different health professions; interprofessional communication; and teams and teamwork. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 310; credit or registration for Nursing 320, and 321 or 321H, or consent of instructor.

### **N 152, 252. Career Planning and Professional Development.**

Develop foundational knowledge and skills needed to launch a successful career in health care. Explore career management and professional development as a continuous lifelong process. For each semester hour of credit earned, one lecture hour a week for one semester. Nursing 247 (Topic: Nur Career Plan/Prof Devel) and Nursing 252 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **N 354. Spanish for Health Care Professionals.**

Basic medical Spanish language skills and phrases related to assessment and nursing activities. Focus on the cultural values of Latino patients who seek health care in the United States. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **N 255C. Adult Health Nursing IIA.**

First of a two-part sequence in adult health nursing. Advanced concepts and theories to promote and restore health of adults with biological problems and related physiological and psychological responses. Two lecture hours a week for one semester. Nursing 455 and 255C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Nursing 325 and 325P.

### **N 255D. Adult Health Nursing IIB.**

Second part of a two-part sequence in adult health nursing. Advanced concepts and theories to promote and restore health of adults with biological problems and related physiological and psychological responses. Two lecture hours a week for one semester. Nursing 455 and 255D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Nursing 255C.

### **N 355P. Adult Health Nursing II (Practicum).**

Application of advanced concepts and theories to promote and restore health of adults with biological problems and their related physiological

and psychological responses. Nine laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 325P and Pharmacy 338; credit or registration for Nursing 157P and 455 or 255D.

### **N 356. Mental Health Nursing across the Life Span.**

Biological, environmental, cultural, and interpersonal factors predisposing individuals across the life span to mental health problems. The course is organized around the nursing process, as well as multidisciplinary therapeutic modalities, that assist the individual and family to adapt, recover, and grow through these problems. Current relevant research, and the sociocultural, legal, and ethical implications of providing nursing care to the mentally ill. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 224; credit or registration for Human Development and Family Sciences 313 and 113L or Psychology 304 and Nursing 325.

### **N 256P, 356P. Problems in Mental Health Nursing (Practicum).**

Application of strategies for the care of individuals, groups, and families experiencing mental health problems. For 256P, six laboratory hours a week for one semester; for 356P, nine laboratory hours a week for one semester. Nursing 256P and 356P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Nursing 356.

### **N 157P. Clinical Nursing Skills II Practicum.**

Laboratory instruction and practice in clinical nursing skills. Two laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 325P.

### **N 264. Nursing Research.**

An introduction to key components of the research process, interpretation of basic statistics in research, and critical examination of patient-outcome research studies. Two lecture hours a week for one semester. Nursing 264 and 264H may not both be counted. Prerequisite: Introductory statistics course (such as Statistics and Data Sciences 302F or 302) and Nursing 320, or consent of instructor.

### **N 264H. Nursing Research: Honors.**

Restricted to students in the School of Nursing Honors Program. An introduction to key components of the research process, interpretation of basic statistics in research, and critical examination of patient-outcome research studies. One and one-half lecture hours and one laboratory hour a week for one semester. Nursing 264 and 264H may not both be counted. Prerequisite: An introductory statistics course (such as Statistics and Data Sciences 302F or 302) and Nursing 320, or consent of instructor.

### **N 265. Nursing Care of Childbearing Families.**

Concepts, theories, and processes essential to understanding the health concerns and problems of women and their families during the childbearing years. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 325, 325P, 356, and 256P or 356P; credit or registration in Nursing 157P and 455 or 255C.

### **N 365P. Nursing Care of Childbearing Families Practicum.**

The application of concepts, theories, and processes pertinent to care of women and their families during the childbearing years. Nine laboratory hours a week for one semester. Prerequisite: Credit or registration for Nursing 265.

### **N 266. Nursing Care of Children and Their Families.**

Concepts, theories, and developmental processes essential to the health concerns and problems of children, adolescents, and their families. Two

lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Human Development and Family Sciences 313 and 113L or Psychology 304, Nursing 356, 356P or 256P, Pharmacy 338; and credit or registration in Nursing 355P and 255D or 455.

### **N 366P. Nursing Care of Children and Their Families Practicum.**

Application of concepts, theories, and developmental processes essential to the health concerns and problems of children, adolescents, and their families. Nine laboratory hours a week for one semester. Prerequisite: Nursing 157P; credit or registration for Nursing 266.

### **N 371. Disability over the Life Course.**

An interdisciplinary introduction to the study of disability as a distinct social and clinical concept with practical and theoretical implications for health care. Focus on the changing needs of persons with disabilities over the life course. Explores how to understand the health needs of persons with disabilities and how to work with them and their families so they may negotiate environments with appropriate accommodations that meet their health care needs. Three lecture hours a week for one semester. Nursing 347 (Topic: Disability Over the Life Course) and Nursing 371 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **N 172. International Health Implications.**

Explore global substantive and methodological content to enhance an understanding beyond the United States. Examine the cultural and socioeconomic variability between countries as part of key indicators of understanding. One lecture hour a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **N 273. Quality and Safety for Nursing Practice.**

Designed to prepare students for professional nursing practice. Provides opportunities for synthesis of theoretical, evidence-based, and clinical knowledge with emphasis on quality care and patient safety. Two lecture hours a week for one semester. Nursing 273 and 278 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Nursing 321 or 321H and credit or registration in Nursing 264, or consent of instructor.

### **N 274. Complex Nursing Care.**

Addresses the management of complex and critical needs of patients and their families across the continua of care. The focus will be on people with multiple chronic conditions experienced by various populations such as age groups, disease/health conditions, and settings. In addition, transitional care, critical care concepts, palliative, and end-of-life care will be explored. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 355P, 266, 366P; Nursing 255D or 455; credit or registration for Nursing 277P.

### **N 275. Public Health Nursing.**

Presents public health nursing concepts, theories, and processes used in health promotion, disease or injury prevention, health protection, and risk reduction with individuals, families, groups, communities, and populations. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 455 or 255D, 355P, 356, 256P or 356P, 265, and 266; or consent of instructor.

### **N 375P. Public Health Nursing Practicum.**

Application of public health nursing concepts, theories, and processes used in health promotion, disease or injury prevention, health protection, and risk reduction with individuals, families, groups, communities,

and populations. Nine laboratory hours a week for one semester. Prerequisite: Credit or registration for Nursing 275.

### **N 377. Leadership and Management of Nursing Care.**

Investigation, synthesis and application of laws, rules, theories and concepts in nursing leadership and management that promote professional nursing practice and healthcare leadership in diverse settings. Three lecture hours a week for one semester. Nursing 377 and 377H may not both be counted. Prerequisite: Nursing 325 or consent of instructor.

### **N 377H. Leadership and Management of Nursing Care: Honors.**

Investigation, synthesis and application of laws, rules, theories and concepts in nursing leadership and management that promote professional nursing practice and healthcare leadership in diverse settings. Three lecture hours a week for one semester. Nursing 377 and 377H may not both be counted. Prerequisite: Admission to the School of Nursing Honors Program or consent of instructor.

### **N 277P, 377P. Clinical Care Management Practicum.**

Application of selected concepts and theories of management in the planning and delivery of health care. For 277P, six laboratory hours a week for one semester; for 377P, nine laboratory hours a week for one semester. Nursing 277P and 377P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Nursing 265, 365P, 266, and 366P; and credit or registration in Nursing 377 or 377H.

### **N 279P. Capstone Preceptorship.**

Designed to provide students with clinical experiences similar to those that confront newly employed registered nurses. Focuses on the role transformation of students and on clinical competence in communication, collaboration, negotiation, delegation, coordination, and evaluation of interdisciplinary work. Thirty to forty hours a week for three to four weeks for a total of 120 clinical hours. Additional preparation time to assure clinical competence may be required. Offered on the pass/fail basis only. Prerequisite: Nursing 377 or 377H, and 277P or 377P.

## **Graduate Courses**

### **N 280C. Psychopharmacology for Advanced Practice Nurses.**

Covers prescribing and monitoring medications commonly used with patients who have psychiatric or mental health problems. Two lecture hours per week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 395C, 396C, 396J, and consent of instructor.

### **N 280D. Family Care Concepts in Psychiatric-Mental Health Nursing.**

Covers psychiatric-mental health nursing care for families with complex relational problems in various clinical settings. Application of theoretical, ethical, and evidence-based practices to formulate delivery of culturally sensitive care within the community context. Covers common practices and treatment protocols, with emphasis on critical thinking skills inherent to the role of the PMHNP. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in the School of Nursing; and Nursing 392E, 392Q, 396C, 396J, or consent of instructor.

### **N 280E. Role of the Family Psychiatric and Mental Health Nurse Practitioner.**

Focuses on legal, political, and ethical issues affecting the family psychiatric and mental health nurse practitioner. Two lecture hours a week for one semester. Prerequisite: Graduate standing in the School of Nursing.

### **N 380F. Advanced Psychiatric and Mental Health Nursing I.**

Studies the theory and evidence bases for diagnosis and management of a variety of common psychiatric and behavioral disorders. Emphasizes diagnostic reasoning, clinical decision-making, and therapeutic strategies appropriate for the role of the family psychiatric and mental health nurse practitioner. Considers the sociocultural and community context for patient care. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in the School of Nursing, and consent of instructor or one of the following: Nursing 392E, 395C, 396C, 396J; concurrent enrollment in Nursing 380G; credit or registration for Nursing 180C.

### **N 380G. Advanced Psychiatric and Mental Health Nursing I: Clinical.**

A precepted, clinical environment in which to apply knowledge related to biological and psychosocial theories, pharmacology, health promotion, and ethics to patients and families with common psychiatric and behavioral disorders. Emphasis is placed on role development using standardized procedures and tools that assist in diagnosis, treatment, and developing beginning-level therapy skills in multiple modalities. Twelve laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in the School of Nursing, and consent of instructor or one of the following: Nursing 380D, concurrent enrollment in Nursing 380F, credit or registration for Nursing 180C.

### **N 280H. Advanced Psychiatric-Mental Health Nursing II.**

In-depth focus on the role of the family psychiatric and mental health nurse practitioner using theoretical bases for care of complex psychiatric and mental health patients with psychopathology in a variety of settings across the life span. Students integrate various biological and psychosocial theories with psychopharmacology, health promotion, and ethical decision-making to develop culturally sensitive care. Emphasizes evidenced-based practices, recommended practices and treatment protocols, ethical decision making, and critical thinking strategies that are integral to the role of the family psychiatric and mental health nurse practitioner. Two lecture hours per week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in the School of Nursing; and Nursing 380F and 380G, and concurrent enrollment in Nursing 480J, or consent of instructor.

### **N 480J. Advanced Psychiatric and Mental Health Nursing II: Clinical.**

Studies the role of the advanced psychiatric and mental health nurse practitioner in providing care for patients and families with complex psychopathology and psychiatric and mental health problems in a variety of clinical settings. Knowledge from biological and psychosocial theories, psychopharmacology, health promotion, and ethics to develop culturally sensitive care. Emphasizes role development, evidenced-based practices, recommended practices and treatment protocols, ethical decision making, and critical thinking strategies. Sixteen laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in the School of Nursing; and Nursing 380F and 380G, and concurrent enrollment in Nursing 380H, or consent of instructor.

### **N 380L. Theory Development in Nursing.**

Introduction to the nature of scientific explanation and inquiry. Critique of theoretical conceptualization in nursing. Examination of strategies for theory development. Analysis of the role of theory in nursing as a practice discipline. Three lecture hours a week for one semester. Required of all doctoral students. Prerequisite: Graduate standing.

### **N 380M. Historical and Philosophical Study of Nursing.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Philosophical Aspects of Nursing.** Introduction to the analysis of nursing language: defining terms, detecting logical fallacies, analyzing meanings, and recognizing descriptive and normative aspects of judgments.

**Topic 2: Historical Development of Nursing.** In-depth study of the history of nursing, with emphasis on influences on the profession and changes that have occurred within it. Review of the association of nursing with related disciplines, its emergence into institutions of higher learning, organizational structure and hierarchy, changes in educational focus resulting from the preparation of educational leaders, and related topics.

**Topic 3: Philosophy of Nursing Theory.** Advanced seminar in the application of philosophical aspects of nursing theory. Additional prerequisite: Nursing 380L.

**Topic 4: Philosophical and Theoretical Bases of Nursing Science.** Philosophical principles and theories that contribute to the ongoing evolution of nursing science. Explores the historical development of nursing as a professional discipline in the context of philosophy and science. Prerequisite: Graduate standing and Nursing 397L (Topic 4: Critical Review of the Literature).

### **N 480Q. Psychiatric Assessment and Psychotherapy Skills.**

Introduces psychiatric-mental health assessment of individuals and families throughout the life span, using established therapeutic communication techniques, individual psychotherapeutic modalities, and psychotherapy skills from evidence-based practices. Covers synthesis of theories and knowledge from nursing, biology, psychiatry, psychology, and socio-cultural studies as they apply to the comprehensive assessment of psychiatric clients. Focus on assessment and psychotherapy skills commensurate with the role of the PMHNP through didactic, experiential and observational practice in the classroom. Three and one half lecture hours and one laboratory hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 395C, 396C, 396J, and 196K, or consent of instructor.

### **N 480T. PMHNP: Management of Chronic Illness.**

Analysis and application of physiological, psychosocial, spiritual, and environmental concepts to treat selected patients with chronic illness. Focus on dynamics of chronic illness and related psychiatric mental health nurse practitioner roles. Explores concepts relevant to the management of complex and chronic health care problems often comorbid with psychiatric illness. Includes supervised instruction in clinical agencies. Three lecture hours and four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and Nursing 396C, 396J, 395C, 280C, and 480Q; or consent of instructor.

### **N 380U. Spanish for Health Care Professionals.**

Basic medical Spanish language skills and phrases related to assessment and nursing activities. Focus on the cultural values of Latino patients who seek health care in the United States. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **N 281C. Health Informatics.**

Information and communication technologies are increasingly being applied to the healthcare context, with many new jobs opening up in areas such as health information management, electronic health records, and consumer and public health informatics. Explores the challenges and career opportunities provided by these recent developments. Discusses major issues-social, cultural, political,

economic, technological, historical, and ethical-associated with health informatics. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **N 381D. Leadership Development for Healthcare Professionals.**

Examines leader-follower partnerships in diverse healthcare settings. Uses theories, research findings, and expert opinions from several fields of study to explore the related concepts of power, authority, influence, leadership, followership, decisional involvement, structural empowerment, and emotional intelligence in the context of complex healthcare work environments. Special emphasis is placed on the use of effective leadership and followership behaviors to sustain high performing interprofessional teams and improve quality outcomes for patients, families, and healthcare organizations. Three lecture hours a week for one semester Offered on the letter-grade basis only. Prerequisite: Graduate Standing

### **N 381M. Adult Health Nursing.**

The equivalent of three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

#### **Topic 1: Theoretical Foundations in Adult Health (Adult Health I).**

Theoretical underpinnings for research in adult health nursing. Analysis of theories related to person, health, and environment for their applicability to adult health nursing. Nursing 381M (Topic 1) and (Topic 5) may not both be counted.

**Topic 2: Substantive Areas in Adult Health (Adult Health II).** Overview of nursing issues, psychosocial and physiological concepts, and research findings related to health promotion and health care needs of adults. Designed to help students develop the conceptual component of the dissertation research. Nursing 381M (Topic 2) and 397L (Topic 4: Critical Review of the Literature) may not both be counted.

**Topic 3: Research in Adult Health (Adult Health III).** Application of methodology and theory development to research studies in adult health, with emphasis on analysis and development of methods for research in adult health nursing. Additional prerequisite: Nursing 381M (Topic 1 or Topic 2) and 397L.

**Topic 4: Advanced Dissertation Seminar (Adult Health IV).** Structured reference group for discussion of the theoretical and methodological aspects of the dissertation research process. Additional prerequisite: Nursing 380L, 381M (Topic 1), 381M (Topic 2), 381M (Topic 3), and 397K.

**Topic 5: Theories of Health Behavior.** The theoretical underpinnings for research related to health behaviors and health behavior change for individuals, groups, or systems. Nursing 381M (Topic 1) and 381M (Topic 5) may not both be counted. Additional prerequisite: Nursing 380M (Topic 4: Philosophical and Theoretical Bases of Nursing Science).

**Topic 6: Nursing Science: Domains of Inquiry and Interdisciplinary Perspectives.** Explore domains of nursing science through inquiry, shaped by the problems and perspectives of nursing as a practice and academic discipline. Includes critical review of theories that contribute to the understanding of nursing practice and nursing research within an interdisciplinary context. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Additional prerequisite: Nursing 380M (Topic 4) or course equivalent, or consent of instructor.

### **N 181P, 281P. Project Planning Practicum.**

Analyze and implement roles for advanced nursing leadership practice. Explore the opportunity for a learner to meet with a potential preceptor to identify an issue or problem within an organization, develop a project contract and develop the project charter to implement, and evaluate

healthcare programs. For 181P, four laboratory hours a week for one semester; for 281P, one lecture hour and four laboratory hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Credit or registration for Nursing 381D and 396C.

#### **N 181Q. Patient Care Practicum.**

Apply advanced nursing concepts in a selected area of nursing. Develop individual goals and objectives for practicum activities. Address health issues in areas such as the care of individuals, families, communities, and systems. Four laboratory hours a week for one semester. Nursing 181Q and 195 (Topic: Patient Care Practicum) may not both be counted. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Credit or registration for Nursing 395C, 396C and 396J.

#### **N 381R. Theoretical Foundations of Aging.**

Theories in gerontology as applied to nursing practice. Two and one-half lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Graduate standing.

#### **N 381S. Gerontological Nursing.**

Physiological changes in the elderly, and their implications for nursing practice. Two lecture hours and four and one-half laboratory hours a week for one semester. Prerequisite: Graduate standing and Nursing 381R.

#### **N 281V. Leadership in Diverse Settings Advanced Nursing Practicum.**

Precepted practicum focusing on advanced nursing concepts and skills in a setting selected with consideration of the student's interest, needs, goals, and objectives. Assessments of individuals, families, or groups, and their environments, implementation of appropriate evidence-based specialized nursing interventions, and evaluation the role of master's prepared nurses in diverse practice settings. Eight laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 396C, 396J, and credit or registration for Nursing 395C; or consent of instructor.

#### **N 181W, 281W. Leadership in Diverse Settings Advanced Nursing Capstone Practicum.**

Focuses on program evaluation, policy implications and analysis, and development of leadership in diverse settings. For each semester hour of credit earned, four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Nursing 281P.

#### **N 382. Sociocultural Influences on Health.**

Focuses on factors associated with health status, health care, and health policies. Using an ecological approach, the course explores relationships among individual characteristics such as gender, education, income, literacy, race, ethnicity, culture, acculturation, disability, age, and sexual orientation; interpersonal factors such as communication with health care providers, family and social ties, and discrimination; and societal-level factors such as neighborhood and community context, health care organizations, economics, politics and policies and seeks to understand how those factors shape health behaviors, access to health care services, and health status locally, nationally, and globally. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 382H. Health Care Delivery.**

Overview of the health care delivery system in the United States—its definition, characteristics, and components. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 382W. Informatics for Healthcare Professionals.**

Explores subjects of health informatics that are specifically focused to healthcare professionals. Representative subjects include: key roles and responsibilities of health informaticians in American healthcare system; Informatics related theoretical foundations, research needs assessment and available information sources on EBP; Applications of health informatics by healthcare professionals (HCPs) in clinical settings; Implementation and evaluation of health informatics applications in clinical settings; Human-computer interaction (HCI), usability and ethical challenges and issues faced by HCPs; and new trends in health informatics technology to engage patients. Three lecture hours a week for one semester. Nursing 395 (Topic: Health Informatics) and 382W may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

#### **N 284C. Professional Nursing Foundations.**

Introduction to fundamental nursing care concepts, processes, and skills, including communication and assessment. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Graduate standing and admission to the alternate entry MSN program.

#### **N 384D. Conceptual Foundations of Nursing.**

Life-span, health-related phenomena and concepts essential to effective nursing practice with multiple levels of clients. Three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the alternate entry MSN program.

#### **N 484E. Nursing Responses to Physiological Alterations in Health.**

Discussion of physiological alterations across the life span and of the nursing measures indicated to restore and maintain health. Four lecture hours a week for one semester. Prerequisite: Graduate standing, admission to the alternate entry MSN program, and Nursing 484C.

#### **N 484F. Adult Health Nursing I.**

Discussion and application of concepts and theories necessary to promote and restore the health of adults with biological problems and related physiological and psychological responses. One and one-half lecture hours, two hours of skills laboratory, and eight hours of clinical work a week for one semester. Nursing 484F and 387F may not both be counted. Nursing 484F and 390F may not both be counted. Prerequisite: Graduate standing and admission to the alternate entry MSN program.

#### **N 484G. Conceptual Bases of Mental Health Nursing.**

Current perspectives on the etiology, prevention, and treatment of mental disorders in individuals, families, and groups; clinical application of pertinent nursing care. Two and one-half lecture hours and six laboratory hours a week for one semester. Nursing 484G and 287G may not both be counted. Nursing 484G and 290G may not both be counted. Prerequisite: Graduate standing and admission to the alternate entry MSN program.

#### **N 484H. Nursing Care of Childbearing and Childrearing Families.**

Concepts, theories, and processes essential to understanding the health concepts and nursing care of families during the childbearing and childrearing years. Four lecture hours a week for one semester. Nursing 484H and 287H may not both be counted. Nursing 484H and 290H may not both be counted. Prerequisite: Graduate standing, admission to the alternate entry MSN program, and Nursing 384D, 484E, 484F, and 484G.

#### **N 384J. Nursing Care of Childbearing and Childrearing Families Practicum.**

Clinical application of concepts, theories, processes, and skills pertinent to the care of families during the childbearing and childrearing years. Twelve laboratory hours a week for one semester. Nursing 384J and

287J may not both be counted. Nursing 384J and 290J may not both be counted. Prerequisite: Graduate standing; admission to the alternate entry MSN program; Nursing 384D, 484E, 484F, and 484G; and credit or registration for Nursing 484H.

#### **N 284N. Genomic Applications in Nursing.**

The ethical, legal, psychological, and social issues involved in the integration of genetic information into nursing practice. Two lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the alternate entry MSN program.

#### **N 284P. Aging and Disability.**

Examines concepts and theories of aging and disability. Addresses the changing physical, psychological, social, economic, ethical, legal, and spiritual needs, environmental accommodations, and caregiver responsibilities and needs across the life course. Two lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the alternate entry MSN program.

#### **N 484R. Adult Health Nursing II.**

Discussion and application of core concepts, including nursing management, jurisprudence, and rehabilitation. Studies theories that can be used to promote and restore health of adults with biological problems and related physiological responses. Two lecture hours and eight laboratory hours a week for one semester. Nursing 484R and 387R may not both be counted. Nursing 484R and 290R may not both be counted. Prerequisite: Graduate standing, admission to the alternate entry MSN program, and Nursing 384D, 484E, 484F, and 484G.

#### **N 484S. Integration of Clinical Nursing Knowledge.**

Integration of nursing knowledge derived from didactic and clinical courses with application in the care of clients across the life span and in a variety of settings. One lecture hour and twelve laboratory hours a week for one semester. Nursing 484S and 187S may not both be counted. Nursing 484S and 290S may not both be counted. Prerequisite: Graduate standing, admission to the alternate entry MSN program, and Nursing 484H, 384J, and 484R.

#### **N 284T. Professional Nursing Management.**

Examines selected concepts and theories of nursing leadership and management in the context of the nursing work environment and professional nursing career development. Two lecture hours a week for one semester. Prerequisite: Graduate standing; admission to the alternate entry MSN program; Nursing 284C, 284N, 284P, 387F, 387R, 390F; and credit or registration for Nursing 187S, 290G, 290H, 290J, 290Q, and 290R.

#### **N 385R. Community Mental Health and Wellness.**

Concepts, theories, and research on the mental health and wellness of individuals, groups, and families living and working in communities. Principles of preventive health care form a philosophical framework within which students analyze, evaluate, and synthesize the concepts and theories used to promote the health and welfare of people in the community. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 385S. Advanced Theory and Research in Mental Health.**

Analysis, development, and testing of theories and conceptual models of mental health and illness; examination of relationships among stress, response to traumatic events, and mental health of the individual, family, and groups. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 386C. Computers in Nursing.**

Development of competence in computer use and in the application of computer-based techniques to nursing problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 386E. Evidence-Based Practice and Outcomes in Health Care.**

Theories of evidence-based practice are used to examine complex nursing decision-making activities in clinical and administrative health care settings. Students appraise the health care literature to evaluate the evidence for implementation of change protocols and apply their learning to clinical and administrative decisions about effecting change to deliver patient-centered care. Review of various methods of dissemination of evidence-based practice and outcomes data. Three lecture hours a week for one semester. Prerequisite: For students in the Master of Science in Nursing program, graduate standing and either Nursing 392 and 392E or consent of instructor; for alternate entry students, graduate standing and either Nursing 384D and 392E or consent of instructor.

#### **N 386F. Budget and Finance in Health Care.**

Conceptual and practical applications of financial management, cost analyses, and budgeting in the contemporary health care delivery system. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 386H. Overview of Healthcare System.**

Designed to provide an extensive overview of the U.S. healthcare system. Topics include historical underpinnings, current trends, contemporary issues, and strategies for delivering healthcare in a variety of settings. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 386M. Administrative Decision Making in Nursing Systems.**

Theories of nursing, economics, management science, and decision analysis are used to examine strategic and operational decision activities in the administration of nursing systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 386P. Practicum in Administrative Decision Making.**

Guided field experience to examine information management and complex decision problems in the administration of nursing systems. Twelve laboratory hours a week for one semester. Prerequisite: Graduate standing and credit or registration for Nursing 386M.

#### **N 386Q. Quality and Safety in Healthcare.**

Examination of quality and safety in the U.S. healthcare system based on quantitative and qualitative research findings, expert opinions, and cultural surveys. Explores and evaluates strategies for creating and sustaining a culture of safety in healthcare. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 386R. Nursing Systems: Theory and Research.**

Advanced study of theories and research related to nursing systems of care and patient aggregates within organized settings. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 386S. Health Care Systems Outcomes.**

Theoretical and methodological issues related to the study of outcomes of nursing systems of care, including patient, staff, organization, and community health outcomes. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 686V. Internship in Administration of Nursing Systems.**

Analysis and implementation of advanced nursing administrative roles. Synthesis of knowledge and skill in designing, implementing, and

evaluating nursing system programs. One lecture hour a week for one semester, and twenty hours of fieldwork a week in a health care agency. Prerequisite: Graduate standing and Nursing 386K, 386M, and 386P.

### **N 387. Best Practices in Clinical Teaching.**

Designed to prepare nurse educators to manage a group of nursing students in a variety of clinical settings. Applies learning theory to specific teaching strategies designed to prepare students for clinical practice. Explores methods for evaluating learning outcomes. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing, and credit or registration for Nursing 387C or consent of instructor.

### **N 387C. Conceptual Foundations of Nursing Education.**

Designed to introduce the student to the essential elements of nursing education. Critical elements include the theoretical bases of teaching and learning, curriculum development, and assessment and evaluation strategies. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **N 387F. Adult Health Nursing I.**

Introduction to concepts, theories, and research findings essential for promoting and restoring the health of adults with selected commonly occurring physiological alterations and responses to health and illness. Three lecture hours a week for one semester. Nursing 484F and 387F may not both be counted. Prerequisite: Graduate standing, admission to the alternate entry MSN program, and credit or registration for Nursing 284C.

### **N 287G. Psychiatric-Mental Health Nursing.**

The biological, environmental, cultural, and interpersonal factors affecting individuals with psychiatric-mental health problems. Four and one-half lecture hours a week for seven weeks. Nursing 484G and 287G may not both be counted. Prerequisite: Graduate standing; admission to the alternate entry MSN program; and Nursing 284C, 284N, 284P, and 387F.

### **N 287H. Child Health Nursing.**

Integrates concepts, theories, and processes essential to understanding the health and illness of children within the context of the family. Four and one-half lecture hours a week for seven weeks. Nursing 484H and 287H may not both be counted. Prerequisite: Graduate standing; admission to the alternate entry MSN program; and Nursing 284C, 284N, 284P, and 387F.

### **N 287J. Maternity Nursing.**

Focuses on the normal processes and physiological alterations that occur before, during, and after pregnancy. Presents concepts, theories, and processes essential for promoting health and addressing health concerns of women, neonates, and their families during the childbearing years. Four and one-half lecture hours a week for seven weeks. Nursing 384J and 287J may not both be counted. Prerequisite: Graduate standing; admission to the alternate entry MSN program; and Nursing 284C, 284N, 284P, and 387F.

### **N 387K. Leading and Managing in Complex Healthcare Systems.**

Concepts related to individual, group and organizational behavior are studied and applied to the processes of leading people and managing work in complex healthcare systems. Theories of nursing, economics, organizational psychology, management science, sociology, and complexity science are used to critically examine healthcare work environments. Theory application will focus on creating and sustaining healthy work environments, leading and managing organizational change, managing work processes, and administrative decision making.

Relevant research in nursing and other behavioral sciences is reviewed. Three lecture hours a week for one semester. Nursing 386K and 387K may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **N 287P, 387P, 487P, 587P, 687P. Practicum in Nursing Education.**

Designed to help the student prepare for a variety of roles in nursing education based on individual professional experience and goals. Practice teaching in clinical settings, simulation laboratories, and distant and live classrooms. Students teach patients, nursing staff members, or students individually or as groups. For each semester hour of credit earned, four laboratory hours a week for one semester. Prerequisite: Graduate standing; and credit or registration for Nursing 387, 387C, or 388, or consent of instructor.

### **N 287Q. Public Health Nursing.**

Integration of nursing, public health, and social science concepts and theories essential for promoting and restoring health and preventing disease and disability in aggregates, populations, and communities. Four and one-half lecture hours a week for seven weeks. Prerequisite: Graduate standing; admission to the alternate entry MSN program; and Nursing 284C, 284N, 284P, 387F.

### **N 387R. Adult Health Nursing II.**

Advanced concepts, theories, and research findings essential for promoting and restoring health of adults with selected complex physiological alterations and responses. Three lecture hours a week for one semester. Nursing 484R and 387R may not both be counted. Prerequisite: Graduate standing; admission to the alternate entry MSN program; Nursing 284C, 284N, 284P, 387F; and credit or registration for Nursing 390F.

### **N 187S. Integration of Nursing Knowledge.**

Integration of nursing knowledge derived from didactic and clinical courses, with application in case studies and simulated patients across the life span and in a variety of settings. One seminar hour a week for one semester. Nursing 484S and 187S may not both be counted. Prerequisite: Graduate standing; admission to the alternate entry MSN program; Nursing 387R, 390F; and credit or registration for Nursing 290R.

### **N 388. Strategies of Teaching in Nursing.**

Designed to prepare nurse educators across a spectrum of settings, including patient education, staff development, and college teaching. Explores the application of learning theory to a variety of teaching strategies and methods of evaluating processes and outcomes. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing, and credit or registration for Nursing 387C or consent of instructor.

### **N 389C. Adult-Gerontology Clinical Nurse Specialist: Role Dimensions.**

Survey of the underlying values and the central and core competencies of the adult-gerontology clinical nurse specialist in adults (young adults through older adults) across the spheres of influence (patient, nursing practice, organization/system). Application of theory and research to advanced practice. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and credit or registration for Nursing 392E or consent of instructor.

### **N 389D. Adult-Gerontology Clinical Nurse Specialist: Health Promotion and Illness Prevention.**

Analysis of physiological, psychosocial, and environmental concepts and testing of assessments and interventions for select adult-gerontology

(AG) populations across the life spectrum (young adults through older adults). Two and one-half lecture hours and two laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and credit or registration for Nursing 389C and 392E.

**N 589E. Adult-Gerontology Clinical Nurse Specialist: Chronic Illness.**

Analysis of physiological, psychosocial, spiritual, and environmental concepts and testing of assessment and interventions for select adult-gerontology (AG) populations with chronic illness conditions. The focus is on dynamics of multiple chronic illness and related Adult-Gerontology Clinical Nurse specialist (AG-CNS) roles. Three lecture hours and eight laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Nursing 389C, 389D, 489F, 392E, 395C, 396C, and 396J; or consent of instructor.

**N 389F, 489F. Adult-Gerontology Clinical Nurse Specialist: Acute Care.**

Analysis of physiological, psychosocial, and environmental concepts and testing of assessments and interventions in select adult-gerontology populations experiencing acute illness. Focus on dynamics of acute illness and related Adult-Gerontology Clinical Nurse specialist (AG-CNS) roles. For 389F, two lecture hours and four laboratory hours a week for one semester; for 489F, two lecture hours and eight laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; and either consent of instructor or the following coursework: Nursing 389C, 396C, and 396J and credit or registration for Nursing 389D, 392E, and 395C.

**N 489H. Diagnosis and Management of Adult-Gerontology Health Problems.**

Theoretical and clinical content for management of health problems of adult patients across the life spectrum (young adults through older adults). Integration and application of skills and knowledge gained in previous adult-gerontology clinical nurse specialist coursework for adult patients in the acute or chronic setting. Pattern recognition, critical thinking, analysis, diagnostic testing, differential diagnosis, and medical management of common adult, older-adult health problems. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing; Nursing 389C, 389D, 589E, 489F, 396C, and 396J; credit or registration for Nursing 395C or the equivalent; completion of all core courses in the adult health concentration; and consent of instructor.

**N 389J. Adult Health Nursing: Health Promotion and Risk Reduction.**

Analysis of physiological, psychosocial, cultural, and environmental issues related to health promotion. Explores risk reduction assessment, intervention strategies, the dynamics of health promotion, and related advanced nursing roles. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing and credit or registration for Nursing 396C and 396J, or consent of instructor.

**N 389K. Adult Health Nursing: Chronic and Disabling Conditions.**

Analysis of physiological, psychosocial, cultural, and environmental issues related to chronic conditions. Includes the dynamics of health promotion and risk reduction, symptom management, acute exacerbations, and related nursing roles within the context of chronic and disabling conditions. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: For students in the holistic adult health nursing concentration, graduate standing; and concurrent enrollment in Nursing 392 and 392E, or consent of instructor; for others,

graduate standing; and Nursing 389J and credit or registration for Nursing 396C, or consent of instructor.

**N 389L. Adult Health Nursing: Practicum in Adult Health.**

Guided field experience in which the student applies advanced nursing concepts in a selected area of adult health nursing or role specialty. Specific focus is determined by the needs or interests of the student. One lecture hour and eight laboratory hours a week for one semester. Prerequisite: Graduate standing; and Nursing 389J, 389K, 392Q, 392E, and 392, or consent of instructor.

**N 389M. Adult-Gerontology CNS: Practicum I.**

Guided clinical application of Adult-Gerontology Clinical Nurse Specialist (AG-CNS) core competencies (expert coaching, collaboration, consultation, research, leadership, and ethical decision-making) in delivery of care for select adult-gerontology (AG) populations to promote health and manage acute and/or multiple chronic conditions at the patient, nurse, and system level. Preparation for certification and credentialing as an AG-CNS. One lecture hour and eight laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 386Q, 389C, 389D, 392E, 392P, 395C, 396C, 396J, and 489F, or consent of instructor.

**N 389N. Adult-Gerontology CNS: Practicum II.**

Guided clinical application of Adult-Gerontology Clinical Nurse Specialist (AG-CNS) core competencies, such as expert coaching, collaboration, consultation, research, leadership, and ethical decision-making in the delivery of care for select adult-gerontology (AG) populations to promote health, and manage acute and/or multiple chronic conditions at the patient, nurse, and system level. Prepares students for certification and credentialing as an AG-CNS. One lecture hour and eight laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 386Q, 589E, 389M, concurrent enrollment in 389P, or consent of instructor.

**N 389P. Diagnosis and Management of Adult-Gerontology Health Problems.**

This seminar course offers theoretical and clinical content for advanced nursing students to provide medical management of health problems for adult-gerontological patients. Students will learn pattern recognition, critical thinking, analysis, diagnostic testing, differential medical diagnosis, and medical management of common adult-gerontological health problems using an interprofessional team approach. This seminar is appropriate as a support course for other interprofessional graduate students. Three seminar hours a week for a semester. Nursing 489H and 389P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 589E and credit or registration for 489N, or consent of instructor.

**N 390C. Health Promotion of High-Risk Populations.**

Advanced study of health promotion/illness prevention theories and research, with a focus on selected high-risk populations in the community. Emphasis on analyzing community risk factors, research and theory related to health promotion and illness prevention as applied to individuals, families, aggregates, and organizations, and research related to health outcomes for selected population groups, nationally and internationally. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**N 390D. Public Health in a Global Context.**

Advanced study of theory and research related to public health within a global context. Examines relationships among public health needs and resources, health services, health policy, law, and population health indices. Emphasis is on developing both the knowledge fundamental to population-based health and the research base for optimizing public

health through community action. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **N 390E. Global Health and Primary Care in Costa Rica.**

Explore fundamental concepts of global health, including social, political, and economic determinants of health for Costa Rica. Examine culture, health care systems, and health outcomes. Assess disease management in these environments from a primary care perspective. Consider how to empower people within their communities to manage their health through evidence-based practice, research, and education. Three lecture hours a week for one semester. Nursing 390D and 390E may not both be counted. Prerequisite: Graduate standing; and consent of the Education Abroad Program Coordinator.

### **N 390F. Adult Health Nursing I Practicum.**

Application of concepts, theories, processes and skills pertinent to promoting and restoring the health of adults with selected commonly occurring physiological alterations and responses. Twelve laboratory hours a week for one semester. Nursing 484F and 390F may not both be counted. Prerequisite: Graduate standing; admission to the alternate entry MSN program; and Nursing 284C, 284N, 284P, and 387F.

### **N 290G. Psychiatric-Mental Health Nursing Practicum.**

Application of concepts, theories, processes, and skills that are pertinent to promoting mental health and providing nursing care for people with psychiatric and mental illnesses. Seventeen and one-half laboratory hours a week for seven weeks. Nursing 484G and 290G may not both be counted. Prerequisite: Graduate standing; admission to the alternate entry MSN program; Nursing 284C, 284N, 284P, 387F; and credit or registration for Nursing 287G and 390F.

### **N 290H. Child Health Nursing Practicum.**

Application of concepts, theories, processes, and skills pertinent to the care of children within the context of the family. Seventeen and one-half laboratory hours a week for seven weeks. Nursing 484H and 290H may not both be counted. Prerequisite: Graduate standing; admission to the alternate entry MSN program; Nursing 284C, 284N, 284P, 387F; and credit or registration for Nursing 287H and 390F.

### **N 290J. Maternity Nursing Practicum.**

Application of concepts, theories, processes, and skills pertinent to the care of women, neonates, and their families during the childbearing years. Seventeen and one-half laboratory hours a week for seven weeks. Nursing 384J and 290J may not both be counted. Prerequisite: Graduate standing; admission to the alternate entry MSN program; Nursing 284C, 284N, 284P, 387F; and credit or registration for 287J and 390F.

### **N 390L. Educator as Leader.**

Introduction to the essential skills that facilitate nursing leadership through innovative teaching. Critical elements include theoretical analysis and application of teaching and learning strategies, elements of effective communication, learner assessment, and evaluation strategies applicable in diverse academic and clinical settings. Approaches to the development of values integral for a novice nurse leader-educator are integrated throughout the course including ethical and legal considerations. Two-and-one-half lecture hours and two laboratory hours per week for one semester. Nursing 390L and 395 (Topic: Educator as Leader) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **N 390M. Teaching and Learning in Practice Settings.**

Designed to prepare the nurse educator to effectively assess, design, implement and evaluate educational experiences and/or projects for various learners in clinical and community practice settings. Covers experiential opportunities, evidence-based pedagogy, and best teaching

practices in the simulated experiences; covers interprofessional education, staff development, and teaching patients, families, and nursing students using learning theory and cognitive science. Two lecture hours and four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; credit or registration for Nursing 390L, or consent of instructor.

### **N 390N. Teaching and Learning in Academic Settings.**

Designed for the essentials of course, curriculum and program design, including assessment, evaluation, and ethical/legal standards of nursing education. Explore learning theory and evidence-based pedagogy, personal and professional values with regard to the art and science of nursing education and life-long learning. Two and one-half lecture hours and two laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 390L or consent of the instructor.

### **N 290Q. Public Health Nursing Practicum.**

Application of public health nursing concepts, theories, and processes pertinent to the care of aggregates, populations, and communities. Seventeen and one-half laboratory hours a week for seven weeks. Prerequisite: Graduate standing; admission to the alternate entry MSN program; Nursing 284C, 284N, 284P, 387F; and credit or registration for 287Q and 390F.

### **N 290R. Adult Health Nursing II Practicum.**

Application of advanced concepts, theories, processes, and skills essential for promoting and restoring the health of adults with selected complex physiological alterations and responses. Eight laboratory hours a week for one semester. Nursing 484R and 290R may not both be counted. Prerequisite: Graduate standing; admission to the alternate entry MSN program; Nursing 284C, 284N, 284P, 387F, 390F; and credit or registration for 284T, 387R, 187S.

### **N 290S. Integration of Nursing Knowledge Practicum.**

Designed to assist the student in the application and integration of knowledge from didactic and clinical courses in the care of multiple patients. Forty laboratory hours a week for three weeks. Nursing 484S and 290S may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; admission to the alternate entry MSN program; and Nursing 284T, 187S, 390F, 290G, 290H, 290J, 290Q, 290R.

### **N 390U. Foundations of Nursing Education.**

Examine essential elements of nursing education, including theoretical bases of culturally-relevant teaching, learning, and curriculum development. Explore approaches to the development of values integral for a novice nurse educator, including ethical and legal considerations and the importance of engaging in scholarship. Three lecture hours a week for one semester Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **N 390V. The Art and Science of Teaching Nursing.**

Examine the essentials of course, curriculum and program design for the nurse educator. Using educational technologies, explore teaching and learning strategies in varied formats, including face-to-face, online and hybrid. Explore diversity, inclusivity, and personal and professional values with regard to the art and science of nursing education and life-long learning. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **N 390W. Role of the Nurse Educator.**

Explore advanced role development for the nurse educator, including concepts and skills related to curriculum development and program evaluation, quality improvement, faculty governance and leadership,

and the scholarship of teaching, research, and service. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **N 391D. Advanced Public Health Nursing: Community and Population Assessment.**

Theories and methods to assess populations, communities, and aggregates. Students apply appropriate strategies to assess the strengths and needs of a selected population or community and make public health nursing diagnoses of populations or communities as the foundation for planning public health programs for health promotion and disease prevention. One and one-half lecture hours and six laboratory hours a week for one semester. Prerequisite: Graduate standing and credit or registration for Nursing 391H.

#### **N 391E. Public Health Assurance and Policy.**

Processes involved in the implementation and evaluation of a population-focused health promotion program based on community data sets and previously collected data; and policy recommendations related to the program. One and one-half lecture hours and six laboratory hours a week for one semester. Prerequisite: Graduate standing and Nursing 391D.

#### **N 391F. Epidemiology in Public Health.**

A theoretical framework for applied public health epidemiology, including the importance of high-quality data, measures of morbidity and mortality in a population, epidemiological investigations, and the use of epidemiological study designs. Two and one-half lecture hours and two laboratory hours a week for one semester. Prerequisite: Graduate standing.

#### **N 391G. Public Health Program Development.**

Focus on analyzing and critiquing health promotion and disease prevention initiatives, and obtaining and using relevant community and population-level health data for developing a multilevel health promotion and disease prevention initiative. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing, and Nursing 391D or consent of instructor.

#### **N 391H. Theories and Critical Issues in Public Health.**

Major concepts and theories that guide public health practice for nurses and other professionals; local, national, and global issues and trends that shape public health. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **N 691P. Advanced Public Health Nursing Practice.**

Synthesis of public health nursing knowledge and skills in advanced practice. The multifaceted roles involved in advanced public health nursing practice, with emphasis on the ability to articulate one's professional roles based on theory and practice. One lecture hour and twenty laboratory hours a week for one semester. Prerequisite: Graduate standing and Nursing 391D and 391E.

#### **N 391R. Race, Power, Privilege, and Health.**

Examine the intersections of race, power, and privilege in an effort to better understand their influence on health and health inequities in the United States. Investigate the history and philosophical foundations of the social construction of race, and resulting medical and social science theories about racial differences and how this has influenced health research, practice, and outcomes over time. Three lecture hours a week for one semester. Nursing 391R and 395 (Topic: Race, Power, Privilege/ Hlth) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **N 392. Nursing Phenomena of Concern.**

The major phenomena underlying research and advanced practice in nursing. Concepts derived from these phenomena address the wide range of health, health concerns, and populations that nurses treat. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 392E. Applications of Health Care Research.**

Designed to prepare students to discover, examine, and evaluate knowledge, theories, and creative approaches to health care. Focuses on the skills needed to identify research questions in practice, evaluate existing practice in the light of research findings, and develop strategies to incorporate research findings into the clinical setting. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **N 392J. The Art and Science of Family Health.**

Open to all graduate students with consent of instructor. Theoretical foundations for advanced practice in nursing and other disciplines concerned with family health: family, parent, and child health and development theories; conceptual basis for understanding the context in which parent and child health and illness exist; interdisciplinary concepts and theoretical perspectives. Three lecture hours a week for one semester. Prerequisite: Graduate standing in nursing, or graduate standing and consent of instructor.

#### **N 592K. Parent-Child Nursing I: Childbearing Families.**

Salient concepts and clinical basis for advanced nursing practice with childbearing families, considered from biophysical, psychological, developmental, family, and sociocultural perspectives. Introduction to concepts related to role development as an advanced practice nurse, with emphasis on the promotion of wellness and prevention of illness in pregnant women and their newborns within the context of their families. Students apply these concepts in providing nursing care to childbearing families in a variety of clinical settings under supervision of faculty members and preceptors. Three class hours and eight laboratory hours a week for one semester. Prerequisite: Graduate standing, Nursing 396C and 396J, and credit or registration for Nursing 395C.

#### **N 592L. Parent-Child Nursing II: Childrearing Families.**

Salient concepts and clinical basis for advanced nursing practice with childbearing families, considered from biophysical, psychological, developmental, family, and sociocultural perspectives. Legal, ethical, and practice issues affecting the advanced practice nurse. Emphasis on promotion of wellness and prevention of illness in children within the context of their families. Students apply concepts in providing nursing care to childrearing families in a variety of clinical settings under supervision of faculty members and preceptors. Three lecture hours and eight laboratory hours a week for one semester. Prerequisite: Graduate standing and Nursing 592K.

#### **N 392M. Clinical Project in Parent-Child Nursing.**

Supervised, individual clinical project. One lecture hour and eight laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **N 392P. Health Policy, Program Planning, and Evaluation.**

Open to all University graduate students. Exploration of multilevel health care policy implementation, program development, and outcome evaluation. Focus on the application of policies from macro-level to micro-level systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and Nursing 392E or the equivalent, or consent of instructor.

**N 392Q. Advanced Psychosocial Nursing Care of Diverse Populations.**

Emphasizes current theoretical, research, ethical, and cultural perspectives critical to the application of advanced psychosocial nursing strategies to promote health of diverse populations of individuals, groups, and families. Two and one-half lecture hours a week and two laboratory hours a week for one semester. Prerequisite: Graduate standing.

**N 492S. Advanced Practicum in Parent-Child Nursing.**

Culminating preceptorship experience: each student identifies his or her objectives for refining the role of the advanced practice nurse and selects the clinical setting and target population(s) that best support those objectives. One lecture hour and twelve laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and credit or registration for Nursing 592U.

**N 392T. Advanced Assessment in Parent-Child Nursing.**

Advanced nursing assessment strategies for childbearing and childrearing families. One and one-half lecture hours and six laboratory hours a week for one semester. Prerequisite: Graduate standing.

**N 592U. Parent-Child Nursing III: At-Risk Families.**

Salient concepts and clinical basis for advanced nursing practice with at-risk families during the childbearing years. Legal, ethical, and practice issues affecting the advanced practice nurse. Emphasis is on assessment and intervention with pregnant women and children with health problems that have a social and biophysical etiology. Students apply concepts in providing nursing care to at-risk families in a variety of clinical settings under supervision of faculty members and preceptors. Three lecture hours and eight laboratory hours a week for one semester. Prerequisite: Graduate standing and Nursing 592L.

**N 192V, 392V. Advanced Pediatric Pathophysiology.**

Pathophysiology unique to the growth and development of newborns, infants, children, and adolescents. Embryology, genetics, adaptation to extrauterine life, congenital anomalies, immunology, and the physiology and pathophysiology of puberty. Pathophysiology is studied from a developmental perspective, to encourage students' in-depth understanding of functional and dysfunctional integration of organ systems in the developing human; the goal is to give students a foundation for assessing and intervening with a variety of childhood health conditions based on pathophysiological changes. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**N 492W. Advanced Practicum in Child Health.**

Prominent concepts of biophysical, psychological, developmental, family, and sociocultural perspectives, and the clinical basis for master's-level nursing practice with children and their families. Students use advanced concepts and theories in working with faculty members and preceptors in hospitals, clinics, schools, or homes. Two lecture hours and eight clinical hours a week for one semester. Prerequisite: Graduate standing and Nursing 392V, 394C, and 396T.

**N 393. Parents, Children, and Family Life.**

Study of theories on parents, children, and family life; critical review of major research findings, with emphasis on implications for further research. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**N 393M. Maternal/Parent-Child Nursing.**

Class and/or laboratory hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Seminar in Parenthood and Family Life.** Advanced seminar on theory and research related to parenthood and family life.

**Topic 3: Work and Family: Psychological and Social Aspects of Multiple Roles.** Advanced seminar focusing on occupational and parental roles and the resulting strains and health consequences.

**Topic 4: Predictive and Interventive Research with Families.** Advanced seminar reviewing, critiquing, and applying predictive and interventive research studies.

**N 293P. Pediatric Diagnostic Reasoning and Advanced Invasive Skills.**

Interpretation of laboratory and diagnostic testing; and the development of diagnostic and psychomotor skills needed to care for acute or critically ill pediatric patients. One and one-half lecture hours and two laboratory hours a week for one semester. Prerequisite: Graduate standing, credit or registration for Nursing 394C or the equivalent, and credit or registration for Nursing 392V or the equivalent.

**N 393Q. Advanced Neonatal Nursing I.**

Assessment and implementation of advanced nursing care of the high-risk preterm neonate. Development of a critical, analytical approach to clinical decision making; provision of care within a family-centered and developmentally supportive context. Concepts related to advanced role development of nurse practitioners. Three lecture hours a week for one semester. Prerequisite: Graduate standing, credit or registration for Nursing 293P and 395D, concurrent enrollment in Nursing 293R, and consent of instructor.

**N 293R. Advanced Neonatal Nursing I--Clinic.**

Assessment and implementation of advanced nursing care of the high-risk preterm neonate. Development of a critical, analytical approach to clinical decision making; provision of care within a family-centered and developmentally supportive context. Concepts related to advanced role development of nurse practitioners. Eight clinical hours a week for one semester. Prerequisite: Graduate standing, concurrent enrollment in Nursing 393Q, and consent of instructor.

**N 393S. Advanced Neonatal Nursing II.**

Knowledge and skills needed to recognize and respond to emerging crises and organ system dysfunction or failure in full-term neonates with complex acute, critical, or chronic health conditions. Stabilizing the patient, minimizing complications, restoring maximum health potential through risk reduction, and providing family-centered care. Current research and evidence, theoretical models, and philosophies of care. Continued development of a critical, analytical approach to clinical decision making. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Nursing 393Q and 293R, concurrent enrollment in Nursing 293T, and consent of instructor.

**N 293T. Advanced Neonatal Nursing II--Clinic.**

Continued development of advanced clinical skills in the management of high-risk neonates. Students incorporate nursing theory, current research and evidence, and complex skills into the care of full-term neonates with acute, critical, or chronic health conditions. Integration, under supervision of faculty members and preceptors, of the neonatal nurse practitioner role in the care of high-risk neonates in neonatal intensive care, labor and delivery, and interhospital and intrahospital transport. Eight clinical hours a week for one semester. Prerequisite:

Graduate standing, concurrent enrollment in Nursing 393S, and consent of instructor.

### **N 393U. Advanced Neonatal Nursing III.**

Transition to home care and follow-up care for high-risk neonates and infants and their families. Synthesis of current research and evidence and theoretical concepts in nursing and the social and behavioral sciences that are relevant to care from admission to discharge. Continued development of a critical, analytical approach to clinical decision making. Advanced role development; legal, political, and ethical issues affecting nurse practitioner practice. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Nursing 393S and 293T, and concurrent enrollment in Nursing 293V.

### **N 293V. Advanced Neonatal Nursing III--Clinic.**

Continued development of advanced clinical skills in the management of high-risk neonates and infants. Under the supervision of faculty members and preceptors, students incorporate nursing theory, current research and evidence, and complex skills into the care of neonates and infants from hospital admission to discharge to follow-up care in the community. Integration of knowledge and skills needed to care effectively and efficiently for neonates and infants whose life processes are assisted by or dependent on technological devices. Eight clinical hours a week for one semester. Prerequisite: Graduate standing, concurrent enrollment in Nursing 393U, and consent of instructor.

### **N 493W. Advanced Neonatal Nursing Practicum.**

Concentrated and supervised application of knowledge and skills gained in previous courses to the management of high-risk neonates and infants. Evaluation of patients presenting with complex health problems and of their families; development of comprehensive evidence-based management plans under the supervision of faculty members and preceptors. Sixteen clinical hours a week for one semester. Prerequisite: Graduate standing, Nursing 393U and 293V, and consent of instructor.

### **N 194, 294, 394, 494. Independent Study in Nursing.**

Detailed or in-depth study in a specific topic area. Topic and mode of study are agreed upon by student and instructor. One, two, three, or four lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **N 394C. Advanced Pediatric Health and Developmental Assessment.**

Advanced developmental and health assessment of children (newborn through adolescent). Emphasis is on theories and skills applicable to the assessment of children. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing, admission to the pediatric nurse practitioner specialization, credit or registration for Nursing 192V and 396C, and consent of instructor.

### **N 294D. Primary Health Care of the Adolescent.**

Study of health promotion, anticipatory guidance, prevention of illness, and the assessment and management of illnesses commonly affecting adolescents. Adolescent health is discussed in a developmental context. Two lecture hours a week for one semester. Prerequisite: Graduate standing, admission to the pediatric nurse practitioner specialization, credit or registration for Nursing 394C or 396J, and consent of instructor.

### **N 394E. Pediatric Primary Health Care Concepts I.**

Study of health promotion, anticipatory guidance, prevention of illness, and the assessment and management of acute illnesses commonly affecting children. Concepts related to advanced role development of nurse practitioners. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: For students in the pediatric

nurse practitioner concentration, graduate standing and concurrent enrollment in Nursing 394F and 395D; for others, graduate standing, Nursing 394C and 392V, concurrent enrollment in Nursing 394F, and consent of instructor.

### **N 194F, 394F. Pediatric Primary Health Care Concepts I Clinic.**

Clinical experience in primary care settings, focusing on health promotion and management of well-child care and acute illnesses commonly encountered in children. For 194F, four laboratory hours a week for one semester; for 394F, twelve laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; admission to the pediatric nurse practitioner specialization; Nursing 394C, concurrent enrollment in Nursing 394E and 395D; and consent of instructor.

### **N 294H. Advanced Practicum in Maternity Nursing.**

Guided field experience in which the student applies advanced nursing concepts in a selected area of maternity care. Designed to provide students, under the direction of a clinical mentor, extensive clinical experience to integrate skills relevant to his or her selected professional role. One lecture hour and eight clinical hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 494G, and credit or registration for Nursing 394N.

### **N 294J. Pediatric Primary Health Care Concepts III.**

Primary care management of complex conditions in children. Additional emphasis on advanced role development of the pediatric nurse practitioner. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, admission to the pediatric nurse practitioner specialization, Nursing 394E and 394F, concurrent enrollment in Nursing 494K, and consent of instructor.

### **N 494K. Pediatric Primary Health Care Concepts III Clinic.**

Pediatric primary health care practicum in the advanced nursing management of the health of infants, children, and adolescents. Sixteen laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, admission to the pediatric nurse practitioner specialization, Nursing 396U and 396V, concurrent enrollment in Nursing 294J, and consent of instructor.

### **N 494L. Advanced Physiologic Concepts in Maternity Nursing.**

Advanced concepts related to the physiological, pharmacologic, and environmental adaptations during childbearing. Interpretation of relevant biopsychosocial data; research related to the physiologic and pharmacologic effects in reproductive health; foundation for nursing care to the maternal-newborn dyad in the family context. Three lecture hours and four clinical hours a week for one semester. Prerequisite: Graduate standing, and Nursing 394N and 396C.

### **N 394M. Health Promotion in Maternity Nursing.**

Analysis of concepts related to health promotion, illness prevention, and health disparities throughout the perinatal period (fertility, pregnancy, birth, newborn, lactation, and parenting). Theories and research related to psychosocial concepts, family, parenting, pre-conception, systems of care, and cultural perspectives for health promotion in reproductive health are examined. Investigates the application of theoretical principles and research evidence relating to the care of women and newborns in a variety of settings under faculty and preceptor supervision. Two lecture hours and four clinical practicum hours a week for one semester. Prerequisite: Graduate standing and credit or registration for Nursing 396C.

**N 394N. High-Risk Maternity Nursing.**

Significant biopsychosocial concepts that serve as a basis for nursing practice in high-risk maternity care; knowledge needed to identify common maternity complications; assessment and planning of evidence-based maternity care within the family context. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Nursing 394M.

**N 294P. Advanced Practicum in Maternity Nursing.**

Guided field experience in which the student applies advanced nursing concepts in a selected area of maternity care. Under the direction of a clinical mentor, the student obtains extensive clinical experience to integrate skills relevant to his or her selected professional role. One lecture hour and four clinical hours a week for one semester. Prerequisite: Graduate standing, Nursing 394M, and credit or registration for Nursing 394N.

**N 394Q. Pediatric Acute Care Management I.**

Designed to prepare students to recognize, interpret, and respond to emerging health crises and organ system dysfunction or failure in children with complex acute, critical, and chronic health conditions. Emphasizes patient stabilization, minimizing complications, restoring maximal health potential through risk reduction, and providing physical and psychosocial support to the patient and family. Acute, critical, and chronic disorders within selected physiological systems are explored from a developmental and multicultural perspective. Six lecture hours every other week for one semester. Prerequisite: Graduate standing, Nursing 394E and 194F, credit or registration for Nursing 293P and 395D, concurrent enrollment in Nursing 294R, and consent of instructor.

**N 294R. Pediatric Acute Care Management I: Clinical.**

Provides an opportunity for the beginner acute care pediatric nurse practitioner student to apply advanced knowledge of pathophysiology, pharmacology, current research and evidence, and diagnostic and psychomotor skills to caring for children with complex acute, critical, and chronic health conditions, and their families. Eight laboratory hours a week for one semester. Prerequisite: Graduate standing, concurrent enrollment in Nursing 394Q, and consent of instructor. Students must also have proof of current Pediatric Advanced Life Support (PALS) training from the American Heart Association.

**N 394S. Pediatric Acute Care Management II.**

Designed to prepare students to recognize, interpret, and respond to emerging health crises and organ system dysfunction or failure of physiological systems in children with complex acute, critical, and chronic health conditions. Emphasizes patient stabilization, minimizing complications, and restoring maximum health potential. Explores core concepts such as transport, complex discharge planning, rehabilitation, home care, and long-term care. Six lecture hours every other week for one semester. Prerequisite: Graduate standing, Nursing 394Q and 294R, concurrent enrollment in Nursing 294T, and consent of instructor.

**N 294T. Pediatric Acute Care Management II: Clinical.**

Designed to prepare students for clinical competence consistent with that of a beginner acute care pediatric nurse practitioner. Under the supervision of faculty and preceptors, students integrate advanced knowledge of pathophysiology, pharmacology, current research and evidence, and diagnostic and psychomotor skills to create comprehensive management plans for children with complex acute, critical, and chronic health conditions. Eight laboratory hours per week for one semester. Prerequisite: Graduate standing, concurrent enrollment in Nursing 394S, and consent of instructor. Students must also have proof of current Pediatric Advanced Life Support (PALS) training from the American Heart Association.

**N 594U. Pediatric Acute Care Advanced Practicum.**

Designed to prepare students to demonstrate the clinical competence of an advanced beginner acute care pediatric nurse practitioner. Under the supervision of faculty and preceptors, students have the opportunity to make independent and interdependent decisions in managing emerging health crises and organ system dysfunction in children with a variety of complex acute, critical, and chronic health conditions. Students work in a variety of settings, including emergency departments, intensive care units, inpatient medical and surgical units, and subspecialty clinics. Explores the legal, political, and ethical issues affecting nurse practitioner practice. Twenty laboratory hours a week for one semester. Prerequisite: Graduate standing, Nursing 394S and 294T, and consent of instructor. Students must also have proof of current Pediatric Advanced Life Support (PALS) training from the American Heart Association.

**N 394V. Child Adolescent Psychiatric Mental Health for Primary Care.**

Examines foundational content relative to the care of children and adolescents with behavioral and psychiatric mental health disorders. Aspects of care examined will include health promotion, screening, treatment and referral to psychiatric mental health specialists. Focus on inter-professional and collaborative practice using evidence-based models for evaluation and management of common behavioral and psychiatric mental health disorders in the child and adolescent. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit for Nursing 394E and Nursing 394F, or consent of instructor.

**N 294W. Pediatric Clinical Pharmacology and Therapeutics in Acute Care.**

Explore pediatric pharmacotherapeutics with emphasis on pharmacokinetics, pharmacodynamics, administration and education in acute care settings. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**N 195, 295, 395, 495, 595, 695. Topics in Nursing.**

Areas of special interest. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; some topics also require consent of instructor.

**Topic 2: Community Programs Evaluation.****N 395C. Clinical Pharmacology and Therapeutics.**

Application of pharmacologic and pharmacokinetic principles to drug therapy management in family primary care nursing. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**N 395D. Pediatric Clinical Pharmacology and Therapeutics.**

The study of pediatric pharmacotherapeutics, with emphasis on pharmacokinetics, pharmacodynamics, administration, and education. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**N 395E. Doctor of Nursing Practice Role.**

Restricted to students in the Doctor of Nursing Practice program. Explores the role of the Doctor of Nursing Practice in the broader healthcare environment along with the development and application of knowledge in advanced practice nursing roles. Emphasizes how knowledge is acquired, the theoretical underpinnings upon which nursing practice is based, and the application of knowledge to practice. Two lecture hours and four laboratory hours a week for a semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**N 395F. Theoretical Foundations for Nursing Practice.**

Restricted to students in the Doctor of Nursing Practice program. Examines the nature of theory and theory development for nursing practice; the application of theory to practice, practice change, and scholarship are also explored. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**N 395G. Translating Evidence into Nursing Practice.**

Restricted to students in the Doctor of Nursing Practice program. Methods for developing best practice protocols and putting them into action. Explores analytic and measurement methods to critically appraise literature, how to function as a consultant or in a collaborative research role, and participation in dissemination of evidence-based practice guidelines to improve healthcare outcomes. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**N 395H. Health Promotion Among Diverse Cultures.**

Analyzes the impact of social, cultural, and ecological factors of healthcare delivery on various population groups. Emphasizes the application of sociocultural diversity as well as theories and methods for analyzing healthcare phenomena within the context of advanced practice nursing roles. In the context of an ethical and legal framework, the social issues common among vulnerable populations will also be examined. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Nursing 395E, 395F, and 395G.

**N 395J. Health Policy Development and Implementation.**

Explores the leadership role of nurses in health policy, including the socio-political and economic context of health, advocacy, policy development, analysis, and implementation at the local, state, national, and global levels. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 394E, 395F, and 395G.

**N 395K. Leadership in Organizations and Systems.**

Explores leadership theory, organizational theory, philosophy, culture, structure, processes, information management, interdisciplinary communication, and other areas relevant to healthcare organizations. Examines the role of the Doctor of Nursing Practice nurse within the larger context of the health care system. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 394E, 395F, and 395G.

**N 395L. Quality Improvement and Safety Principles and Methods.**

Provides an overview of the components of the quality improvement processes and quality improvement methodologies to promote safe patient outcomes. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 395E, 395F, and 395G.

**N 395M. Epidemiology and Population Health.**

Explores in detail the roles of federal, state, and local governments in relationship to the core functions of public health. Health disparities and the needs of priority populations will also be analyzed. Health promotion models impacting specific populations and population-focused health initiatives will be evaluated. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 395E, 395F, and 395G.

**N 395N. Biostatistics.**

Basic concepts in descriptive and inferential statistical methods. Explores intermediate statistical concepts including analysis of variance

(ANOVA) with planned comparisons and post-hoc tests, factorial ANOVA, bivariate linear correlation and logistic and multiple regression, survival analysis, the chi-square tests for goodness of fit and association, the Mann-Whitney U test, and the essentials of sample size estimation. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 395E, 395F, and 395G.

**N 395P. Health Care Economics.**

Explores basic economic theory, market drivers and restraints, health care budget, financial management and reimbursement, cost/benefit analysis, and healthcare entrepreneurialism. Includes theory and application, with a particular focus on the clinical role of the Doctor of Nursing Practice within the contemporary healthcare environment. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 395E, 395F, and 395G.

**N 295Q. Professional Practice of the FNP.**

Explores concepts and theory from nursing, social, and biological sciences related to primary care management of complex health/illness conditions in adults and children as members of families. Emphasis is on community/social issues influencing individual and family health, complex individual, family and/or community interventions, advanced role development and legal, political, ethical issues affecting nurse practitioner practice. Two lecture hours a week for one semester. Nursing 295R and 295Q may not both be counted. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing; concurrent enrollment in Nursing 396Q and 196R, 296R, 396R, 496R; or consent of instructor.

**N 395S. Healthcare Information Systems.**

Employs multidisciplinary approaches to informatics by incorporating nursing science, computer science, and information science. Examines the resources and methods required to apply these technologies to clinical guidelines, communication systems and to enhance health care delivery. Opportunities to analyze information requirements, design system alternatives, and consider the management of resources is integrated in the course. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 395E, 395F, and 395G.

**N 395T, 495T, 595T. DNP Clinical Leadership Specialization Seminar and Practicum I.**

Identification of a clinical leadership specialization interest by the Doctor of Nursing Practice student beginning in the second semester of the program. The clinical specialization focus includes identification of evidence-based strategies for implementing and achieving health care outcomes, such as a significant pilot study, a program evaluation project, a quality improvement project, a policy analysis, or a practice change initiative. The student is required to submit an individualized practicum proposal and objectives for the practicum experience. For 395T, one lecture and eight laboratory hours a week for one semester; for 495T, one lecture and twelve laboratory hours a week for one semester; for 595T, one lecture and sixteen laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 395E, 395F, and 395G.

**N 395U, 495U, 595U. DNP Clinical Leadership Specialization Seminar and Practicum II.**

Examines the feasibility of implementing and achieving health care outcomes such as a significant pilot study, a program evaluation project, a quality improvement project, a policy analysis, or a practice change initiative in an identified area of clinical leadership specialization. The student is required to submit an individualized practicum proposal and objectives for the practicum experience. For 395U, one lecture and eight

laboratory hours a week for one semester; for 495U, one lecture and twelve laboratory hours a week for one semester; for 595U, one lecture and sixteen laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 395E, 395F, 395G, and 395T or 495T or 595T.

### **N 395V, 495V, 595V. DNP Clinical Leadership Specialization Seminar and Practicum III.**

Implementation of a significant pilot study, a program evaluation project, a quality improvement project, a policy analysis, or a practice change initiative in an identified area of clinical leadership specialization. Implementation strategies include incorporation of the most recent evidence-based practice in the management of patient care within an interdisciplinary practice model, utilization of evidence-based research in the clinical management of individuals, families, and communities as well as experience in leadership and systems analysis in complex organizations, managing interdisciplinary teams, and developing and implementing quality improvement projects and evidence-based management systems to improve patient, population and health systems outcomes. The student is required to submit an individualized practicum proposal and objectives for the practicum experience. For 395V, one lecture hour and eight laboratory hours a week for one semester; for 495V, one lecture hour and twelve laboratory hours a week for one semester; for 595V, one lecture hour and sixteen laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 395E, 395F, 395G, and 395U or 495U or 595U.

### **N 395W, 495W, 595W. DNP Clinical Leadership Specialization Seminar and Practicum IV.**

Provides the opportunity for dissemination of outcomes such as those resulting from a significant pilot study, a program evaluation project, a quality improvement project, a policy analysis, or a practice change initiative in an identified area of clinical leadership specialization and serves as a foundation for future scholarly practice. The student is required to submit an individualized practicum proposal and objectives for the practicum experience. For 395W, one lecture hour and eight laboratory hours a week for one semester; for 495W, one lecture hour and twelve laboratory hours a week for one semester; for 595W, one lecture hour and sixteen laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Nursing 395E, 395F, 395G, and 395V or 495V or 595V.

### **N 396C. Advanced Pathophysiology.**

Pathophysiologic concepts from the cellular level through major body systems and across the life span. Etiological, pathogenic, and presenting patterns. Fundamental concepts of anatomy and physiology. Students are expected to develop an understanding of nursing and medical interventions for common health problems and the ability to apply and design interventions based on pathophysiologic changes. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### **N 396J. Advanced Health Assessment.**

Advanced knowledge and skills involved in the assessment of individuals throughout the life span, within the context of the family, to determine their health status. Two lecture hours, three laboratory hours, and one hour of skills laboratory a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, credit or registration for Nursing 396C, and consent of instructor.

### **N 396L. Primary Health Care Concepts I.**

Theoretical and clinical knowledge needed for advanced nursing management within the context of the family and the community of individuals who are essentially well or who have minor health problems. Three lecture hours a week for one semester. Offered on the letter-grade

basis only. Prerequisite: Graduate standing; admission to the family nurse practitioner or the pediatric nurse practitioner specialization; Nursing 396J and 296K; concurrent enrollment in Nursing 196M, 296M, or 396M; and consent of instructor.

### **N 196M, 296M, 396M. Primary Health Care Concepts I Clinic.**

Supervised experience in the nursing management of infants, children, and/or advanced adults and families who are well or who have common acute health problems. For each semester hour of credit earned, four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; admission to the family nurse practitioner or the pediatric nurse practitioner specialization; Nursing 396C, 396J, and 296K; concurrent enrollment in Nursing 396L; and consent of instructor.

### **N 396N. Primary Health Care Concepts II.**

Theoretical and clinical knowledge needed for the management of complex and chronic health problems of individuals and families. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; admission to the family nurse practitioner specialization; Nursing 396L and 396M; concurrent enrollment in Nursing 196P, 296P, or 396P; and consent of instructor.

### **N 196P, 296P, 396P. Primary Health Care Concepts II Clinic.**

Supervised experience in the nursing management of infants, children, adults, and families who have complex or chronic health problems. For each semester hour of credit earned, four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; admission to the family nurse practitioner specialization; Nursing 391D, 396L, and 396M; concurrent enrollment in Nursing 396N; and consent of instructor.

### **N 396Q. Primary Health Care Concepts III.**

Offers the FNP student the theoretical and clinical content for management of complex health problems throughout the lifespan. Focus is on the integration and application of skills and knowledge gained in prior FNP coursework for pediatric, adult, and aging clients in primary health care settings. Use pattern recognition, critical thinking, analysis, diagnostic testing, differential diagnosis and medical management of complex health problems throughout the lifespan. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in Nursing 295Q and 196R, 296R, 396R, 496R; or consent of instructor.

### **N 196R, 296R, 396R, 496R. Primary Health Care Concepts III Clinic.**

Advanced supervised experience as a direct primary health care giver in family practice clinical settings. For each semester hour of credit earned, four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; admission to the family nurse practitioner or the pediatric nurse practitioner specialization; Nursing 391E; either Nursing 396N and 396P or 396U and 396V; concurrent enrollment in Nursing 295Q and 396Q; and consent of instructor.

### **N 196S. Special Project in Advanced Practice.**

Development of a special project in an area of research, policy, or clinical issues relevant to advanced practice. Four laboratory hours a week for one semester. Prerequisite: Graduate standing, admission to the family nurse practitioner or the pediatric nurse practitioner specialization, Nursing 396L and 396M, and consent of instructor.

### **N 396T. Ecological Approaches to Child Health.**

The ecological approach to understanding individual, parental, family, and societal determinants of children's health. Students gain knowledge

of developmental and family theories and use epidemiological principles to comprehend the complex dimensions and related conceptual factors that contribute to the health and well-being of children within families. Theoretical foundations for graduate students interested in health promotion and risk reduction for children and families. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **N 396U. Pediatric Primary Health Care Concepts II.**

Theoretical knowledge relevant to the management of complex and chronic primary health care problems from infancy through adolescence. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; admission to the pediatric nurse practitioner or the parent/child nursing specialization; Nursing 396C, 396L, and 396M; concurrent enrollment in Nursing 196V, 296V, or 396V; and consent of instructor.

### **N 196V, 296V, 396V. Pediatric Primary Health Care Concepts II Clinic.**

Clinical practice in the management of complex or chronic health problems of infants, children, and adolescents in a specialty setting as well as management in primary care. For each semester hour of credit earned, four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; admission to the pediatric nurse practitioner specialization; Nursing 394E, 394F and concurrent enrollment in Nursing 396U and consent of instructor.

### **N 396W. Advanced Adult Health Assessment.**

Introduces advanced knowledge and skills related to assessing the health of adult individuals. Emphasis is on combining nursing, biological, psychological, and sociocultural knowledge with theories of health and aging as they apply to the comprehensive assessment of client concerns and interpretation of clinical data relating to health promotion, health maintenance, and illness care. Two lecture hours, one skills laboratory hour, and three laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **N 197C. Doctoral Seminar I.**

Introduction to nursing science. Explores the history, current priorities, and funding mechanisms of science development in nursing along with established programs of nursing research. Provides a forum for students to develop and exchange ideas regarding research topics. One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **N 197D. Doctoral Seminar II.**

One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, and Nursing 197C or consent of instructor.

### **N 397K. Advanced Research in Nursing.**

Nursing science methods for developing and testing theoretical formulations: experimental, descriptive, qualitative, and historical designs. Three lecture hours a week for one semester, with additional computer laboratory hours to be arranged. Required of all doctoral students. Prerequisite: Graduate standing, Nursing 392E, and consent of instructor.

### **N 397L. Nursing Research Methods.**

Three lecture hours a week for one semester, with additional computer laboratory hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Analysis and Interpretation of Data.** Critiquing, interpreting, disseminating, and using research findings.

**Topic 2: Instrumentation and Measurement.** Theoretical, methodological, and procedural aspects of measurement: norm-referenced and criterion-referenced measurement; data management and instrumentation.

**Topic 3: Conceptual Foundations of Research Design and Methods.** Theoretical approach to basic statistical and measurement concepts and their importance to research in health-related areas.

**Topic 4: Critical Review of the Literature.** Designed to assist the novice researcher in conducting a systematic and critical review of the literature in a substantial area of health-related scholarship. Nursing 381M (Topic 2) and 397L (Topic 4) may not both be counted.

**Topic 5: Quantitative Design, Methods, and Analysis.** The quantitative research design, methods, and analyses used in health care research. Includes descriptive, correlational, and experimental designs; related methods of analyses using statistical software; and interpretation of data. Additional prerequisite: Nursing 397L (Topic 3) or consent of instructor.

### **N 397M. Qualitative Research.**

Introduction to the theoretical and methodological aspects of qualitative research methods. Qualitative research approaches from a variety of disciplines and philosophical traditions, with emphasis on the application of research designs and data collection and analysis techniques to nursing studies. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and completion of two doctoral-level research courses or consent of instructor.

### **N 397N. Correlation and Regression in Health Research.**

Examine the principles and applications of statistical techniques using a linear model approach. Explore correlation, partial correlation, linear regression, multiple regression, and logistic regression. Three lecture hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **N 197P, 297P. Nursing Research Practicum.**

Guided experience in conceptual and methodological aspects of research: data management and analysis; critique and interpretation; instrumentation; and measurement. Four or eight laboratory hours a week for one semester. May be repeated twice for credit. May be repeated for credit. Prerequisite: Graduate standing and Nursing 397K.

### **N 397Q. Research Practicum I.**

Examines essential aspects of the responsible conduct of research and beginning skills needed to initiate a research program. Students focus on conceptual, methodological, and practical aspects of research within an ongoing faculty research project. One and one-half lecture hours and six laboratory hours a week for one semester. Prerequisite: Graduate standing; and Nursing 397L (Topic 3: Conceptual Foundations of Research Design and Methods), or credit or registration for Nursing 397L (Topic 5: Quantitative Design, Methods, and Analysis), or consent of instructor.

### **N 397R. Research Practicum II.**

Examines essential procedural aspects of conducting health-related research. Students focus on conceptual, methodological, and practical aspects of research within an ongoing faculty research project. One and one-half lecture hours and six laboratory hours a week for one semester. Prerequisite: Graduate standing; Nursing 397L (Topic 3: Conceptual Foundations of Research Design and Methods), 397L (Topic 5: Quantitative Design, Methods, and Analysis), or consent of instructor; and credit or registration for Nursing 380M (Topic 4: Philosophical and Theoretical Bases of Nursing Science), 382, or consent of instructor.

### **N 397S. Research Practicum III.**

Focuses on essential skills needed to develop a research proposal and plan an independent research program. Students focus on conceptual, methodological, and practical aspects of research within an ongoing faculty research project. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing, and Nursing 397M and 397R.

### **N 197W. Developmental Writing.**

Study writing skills for graduate level course work, including clarity and continuity of thought, use of proper grammar, and proper use of APA format. One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **N 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in nursing and consent of the graduate adviser; for 698B, Nursing 698A.

### **N 398C. Theoretical Basis for Precision Health Implementation Science.**

Examine a scoping review of the theoretical foundations of precision health and implementation science approaches. Explore biological, technological, behavioral, and social-ecological health contexts; and team science approaches and ethics related to implementing precision health approaches. Three lecture hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **N 398D. Designing Precision Health and Implementation Science Research.**

Analyze the scientific rigor of precision health approaches to intervention, data collection, and other study procedures. Examine cutting-edge strategies, emerging resources, and rigorous approaches to precision health research and their potential application to multiple chronic conditions. Three lecture hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and credit or registration for Nursing 397L (Topic 3) and 398C, or consent of instructor.

### **N 398E. Precision Health Interventions for Self-Management.**

Examine issues and approaches in design and implementation of precision health self-management interventions for multiple chronic conditions. Engage in hands-on practice with application of concepts to student-defined, instructor-approved projects. Three lecture hours a week for one semester. May be repeated twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and credit or registration for Nursing 397L (Topic 5), 398C, and 398D; or consent of instructor.

### **N 398T. Supervised Teaching and Learning in Nursing.**

Designed to introduce the student to the essential elements of nursing education prior to engaging in the role of assistant instructor. Critical elements include the theoretical bases of teaching and learning; teaching strategies for clinical and classroom settings; assessment and evaluation strategies for various educational settings; ethical and legal considerations; and the importance of engaging in the scholarship of teaching. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Graduate standing.

### **N 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

## **Nutrition Courses**

### **Nutrition: NTR**

#### **Lower-Division Courses**

#### **NTR 306 (TCCN: BIOL 1322, HECO 1322). Fundamentals of Nutrition.**

Essential food components and their functions in life processes. Three lecture hours a week for one semester. Only one of the following may be counted: Nutrition 306, 312, 312H. Nutrition 306 may not be counted toward a nutritional sciences degree.

#### **NTR 307. Introductory Food Science.**

Application of the principles of food chemistry to processing and preparation techniques. Three lecture hours a week for one semester. Prerequisite: For nutrition majors: Nutrition 312 or 312H with a grade of at least C-, and credit or registration for 107L; for others: Nutrition 306, 312, or 312H with a grade of at least C-.

#### **NTR 107L. Introductory Food Science Laboratory.**

Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 307.

#### **NTR 312. Introduction to Nutritional Sciences.**

Biochemical, physiological, and cellular functions of energy macronutrients, vitamins and minerals, and the scientific basis for current dietary and nutrient recommendations. Designed for science majors. Three lecture hours a week for one semester. Only one of the following may be counted: Nutrition 306, 312, 312H. Prerequisite: Credit with a grade of at least a C- or registration for Nutrition 112L.

#### **NTR 312H. Introduction to Nutritional Sciences: Honors.**

Restricted to honors eligible majors in nutritional sciences, biology, biochemistry, and students in the Dean's Scholars Honors Program. Biochemical, molecular, and cellular functions of nutrients with emphasis on primary scientific literature and current methodology. Three lecture hours a week for one semester. Only one of the following may be counted: Nutrition 306, 311, 312, 312H. Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 301 or 301H; and Mathematics 408C or 408N, or the equivalent; and credit or registration for Biology 311C or 315H, and Chemistry 302 or 302H.

#### **NTR 112L. Introduction to Nutritional Science Laboratory.**

Collection and evaluation of dietary intake data, nutrient composition of food, and survey of dietetic practice. Three laboratory hours a week for one semester. Prerequisite: Chemistry 301 with a grade of at least C-; credit or registration for Biology 311C, Chemistry 302, and Nutrition 312; and one of the following with a grade of at least C-: Mathematics 408C, 408D, 408N, Statistics and Data Sciences 302, 304, 306, 325H, 328M.

#### **NTR 312R. Research in Nutritional Sciences.**

Restricted to honors eligible majors in nutritional sciences, biology, biochemistry, and students in the Dean's Scholars Honors Program. Introduction to biochemical and molecular biological techniques, enzyme and coenzyme assays, dietary analysis and assessment protocols, and statistical methods in nutritional sciences. Preparation of a scholarly paper and oral presentation of research findings. One lecture hour and six laboratory hours a week for one semester. Nutrition 112L and 312R may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Chemistry 301 or 301H; and Mathematics 408C or 408N, or the equivalent; and credit or registration for Biology 311C or 315H, Chemistry 302 or 302H, and Nutrition 312H.

**NTR 315. Nutrition through the Life Cycle.**

Adapting nutrition recommendations to physiological changes throughout the life span. Three lecture hours a week for one semester. Prerequisite: Nutrition 306, 312, or 312H with a grade of at least C-.

**NTR 316. Culture and Food.**

Influence of culture on foodways around the world. Three lecture hours a week for one semester. Prerequisite: Nutrition 306, 312, or 312H with a grade of at least C-.

**NTR 218. Assessment of Nutritional Status.**

Assessment of nutritional status using anthropometric, biochemical, clinical, and dietary intake data, and development and implementation of effective care for individuals. Two lecture hours a week for one semester. Prerequisite: Nutrition 312 and 112L, or 312H and 312R with a grade of at least C- in each; and credit or registration for Nutrition 118L.

**NTR 118L. Assessment of Nutritional Status Laboratory.**

Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 218.

**NTR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Nutrition.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**Upper-Division Courses****NTR 321. International Nutrition: The Developing World.**

Nutrition-related issues in the developing world, including nutrient deficiency and disease, concerns in vulnerable populations (pregnancy, infancy, childhood, and old age), and food aid. Three lecture hours a week for one semester. Prerequisite: Nutrition 306, 312, or 312H with a grade of at least C-.

**NTR 324. Advanced Food Science.**

Application of the principles of food chemistry to the development of food products. Three lecture hours a week for one semester. Offered in the spring semester only. Prerequisite: Chemistry 320M, Nutrition 307, 107L, and 326 with a grade of at least C- in each; and credit or registration for Nutrition 124L.

**NTR 124L. Advanced Food Science Laboratory.**

Individual research project on food product development and evaluation. Three laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Credit or registration for Nutrition 324.

**NTR 326. Intermediate Nutrition and Metabolism.**

Integration of nutrition, genetics, cell biology, and molecular biology. Focuses on the cellular and molecular basis of nutrition-related diseases and nutrient-gene interactions. Three lecture hours and one discussion hour a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each course: Biology 311C, and Nutrition 312 or 312H; and credit or registration for Chemistry 320M, and Nutrition 112L or 312R.

**NTR 126L. Nutritional Sciences Laboratory.**

Basic laboratory techniques in nutritional sciences. Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 326.

**NTR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Nutrition.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**NTR 330. Nutrition Education and Counseling.**

Application of counseling and learning theories to the care of individuals and groups in community and clinical settings. Three lecture hours and one additional class hour a week for one semester. Prerequisite: Nutrition 315 and 326 with a grade of at least C- in each.

**NTR 331. International Nutrition: Social and Environmental Policies.**

Explores the nutritional concerns of different countries, environmental aspects of food supply, and social policies needed to balance supply with demand in a sustainable manner. Three lecture hours a week for one semester. Nutrition 331 and 360 (Topic: International Nutrition: Social and Environmental Policies) may not both be counted. Prerequisite: Upper-division standing, and Nutrition 306, 312, or 312H with a grade of at least C-.

**NTR 332. Community Nutrition.**

National and international issues in public health and nutrition programs. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each course: Nutrition 312 or 312H; 315; and 326.

**NTR 334. Foodservice Systems Management.**

Procurement, production, and service delivery in foodservice systems. Three lecture hours a week for one semester. Prerequisite: For nutrition majors: Nutrition 307, 107L, and 326 with a grade of at least C- in each, and credit or registration for Nutrition 234L; for others: Nutrition 307 with a grade of at least C-, and one of the following with a grade of at least C-: Nutrition 306, 312, or 312H.

**NTR 234L. Laboratory in Foodservice Systems.**

Six laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 334.

**NTR 337. Principles of Epidemiology in Nutritional Sciences.**

Introduction the role of epidemiology methods as the basis for selection of study design and data collection tools in nutrition research such as dietary tools, biomarkers of diet or disease, and anthropometric measurements like obesity. Emphasis on interpretation of study results in nutrition research. Three lecture hours per week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C- or registration for Nutrition 312H or 326, and one of the following with a grade of at least C-: Statistics and Data Sciences 302 (or Statistics and Scientific Computation 302), 304 (or Statistics and Scientific Computation 304), 306 (or Statistics and Scientific Computation 306), 325H (or Statistics and Scientific Computation 325H), or 328M (or Statistics and Scientific Computation 328M).

**NTR 338H. Issues in Nutrition and Health: Honors.**

Restricted to honors majors in biology, biochemistry, and nutritional sciences, and students in the Dean's Scholars honors program. Identifying, reading, analyzing, writing, and presenting scientific research on selected subjects in nutrition and human health. Detailed literature review as preparation for an honors research thesis. Three lecture hours a week for one semester. Nutrition 338H and 338W may not both be

counted. Prerequisite: Biology 325 or 325H; Nutrition 312H and 312R; one of the following: Statistics and Data Sciences 302, 303, 304, 305, or 325H; and credit or registration for Biology 365S.

### **NTR 338W. Issues in Nutrition and Health.**

Identifying, reading, analyzing, writing, and presenting scientific research on selected topics in nutrition and human health. Three lecture hours a week for one semester. Nutrition 338H and 338W may not both be counted. Prerequisite: The following with a grade of at least C-: Biochemistry 369, or Biochemistry 339F; Biology 325 and 365S (or 416L); Nutrition 312H or 326; and one of the following with a grade of at least C-: Statistics and Data Sciences 302, 304, 306, 325H, or 328M.

### **NTR 342. Advanced Nutritional Sciences.**

Biochemical and molecular biological aspects of carbohydrate, fat, and amino acid metabolism. Three lecture hours and one discussion hour a week for one semester. Prerequisite: The following coursework with a grade of at least C-: Nutrition 326; and Biology 325 or Nutrition 218 and 118L; and credit with a grade of at least C- or registration for Biochemistry 369 and Biology 365S.

### **NTR 343. Vitamins and Minerals.**

Biomedical, cellular and molecular, and clinical aspects of vitamins, minerals, and water. Three lecture hours a week for one semester. Only one of the following may be counted: Nutrition 343, 344, 365 (Topic 1). Prerequisite: Biology 325, 365S, and Nutrition 342, with a grade of at least C- in each.

### **NTR 144M. Advanced Nutrition II Laboratory.**

Advanced laboratory techniques in nutrition assessment and research. Three laboratory hours a week for one semester. Offered in the spring semester only. Prerequisite: Consent of instructor.

### **NTR 245C. Clinical Practice in Medical Nutrition Therapy I.**

Application of principles of medical nutrition therapy to the care of clients in the practice setting. Nine hours of supervised practice a week for one semester. Prerequisite: Nutrition 370 with a grade of at least C-, credit or registration for Nutrition 371, and admission to the Coordinated Program in Dietetics.

### **NTR 345M. Clinical Practice in Medical Nutrition Therapy II.**

Application of principles of medical nutrition therapy to the care of patients in health care facilities. Forty hours of supervised practice a week for four weeks. Prerequisite: Nutrition 245C and 371 with a grade of at least C- in each. Students must register for Nutrition 372C in the same semester.

### **NTR 152, 252, 352. Field Experience in Nutrition.**

For each semester hour of credit earned, three field placement hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Approval of application for field experience. Applications are available in the department office.

### **NTR 353. Field Experience in International Nutrition.**

Supervised study abroad experience designed to help students understand nutrition science issues, applications, related health care practices in a global environment, and other cultures. Students work in schools, hospitals, or similar settings to gain professional experience with food science and dietetics. Five lecture hours and ten field hours a week for five weeks. Prerequisite: Nutrition 306, 312, or 312H with a grade of at least C-; and approval of an application to study abroad.

### **NTR 155, 255, 355, 455. Undergraduate Research in Nutrition.**

Supervised individual undergraduate research in nutrition. For each semester hour of credit earned, at least three laboratory hours a week

for one semester. May be repeated for credit, but no more than four semester hours may be counted toward a degree in nutrition. Any additional hours must be taken on the pass/fail basis. Nutrition 355 and 355H may not both be counted. Prerequisite: Consent of instructor.

### **NTR 355H. Honors Research.**

Restricted to honors eligible majors in nutritional sciences, biology, biochemistry, and students in the Dean's Scholars Honors Program. Research in biological, biochemical, or nutritional science, coordinated with readings of scientific literature, and a written research report for each semester in which credit is sought. Nutrition 355 and 355H may not both be counted. May be repeated for credit, but no more than nine semester hours may be counted toward the major in nutrition. Any additional hours must be taken on the pass/fail basis. Prerequisite: Biology 325 or 325H; Nutrition 312H and 312R; and approval of research supervisor.

### **NTR 355M. Advanced Food Systems Management.**

Financial control, quality assurance, personnel administration, foodservice equipment, layout and design in foodservice operations. Analysis and evaluation of an organized foodservice operation. Three lecture hours and four hours of supervised practice a week for one semester. Prerequisite: Accounting 310F or 311, and Nutrition 334 and 234L, with a grade of at least C- in each.

### **NTR 360. Selected Topics in Applied Nutrition.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **NTR 162. Standards, Ethics, and Credentialing for Dietetic Practice.**

Identification of standards and discussion of current issues in ethics and credentialing for dietetics practice. One lecture hour a week for one semester. Prerequisite: Credit or registration for Nutrition 218 and 118L.

### **NTR 365. Selected Topics in Nutritional Sciences.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 2: Nutrition and Genes.** Interactions between nutrients and gene expression, including heredity, gene regulation, metabolic disease, developmental abnormalities, and molecular techniques. Additional prerequisite: Biology 325, 365S, and Nutrition 342, with a grade of at least C- in each.

**Topic 4: Obesity and Metabolic Health.** Examines the prevalence, prevention, and treatment of adult and childhood obesity, and the metabolic disorders related to obesity. Prerequisite: Biology 365S, and Nutrition 312 or 312H with a grade of at least C-.

**Topic 5: Principles and Applications in Community Engagement.** Implement community engagement activities, such as gardening, cooking, and nutrition lessons within a school or other community environment with the goal of improving nutrition and health. Explore evidence-based nutrition programs, such as fundamental principles of food gardening with an emphasis on central Texas, application of skills in the university teaching garden and school gardens, and application of nutrition curriculum in a school setting. Additional prerequisite: Nutrition 312 and Nutrition 326 with a grade of at least C-.

### **NTR 365L. Experiential Learning in Community Engagement.**

Implement hands-on community engagement activities, such as gardening, cooking, and nutrition lessons through the experiential learning laboratory within community/school settings to improve nutrition and health and decrease the incidence of chronic diseases. Apply the fundamental principles of nutrition through activities such as

food gardening to planting to maintaining a school garden; work within school cultures/constraints to improve the school nutrition/gardening culture; apply effective communication, classroom management/engagement, and teaching skills in working with the public, community leaders, and administrators; and evaluate nutrition programs in schools. Five laboratory hours a week for one semester. Prerequisite: Nutrition 365 (Topic 5) with a grade of at least C-.

#### **NTR 366L. Research Methods in Nutritional Sciences.**

Focuses on state-of-the-art research in nutrition, including biochemistry and molecular biological techniques for nutrient-gene interactions, enzyme and coenzyme functions, and nutrient analysis of biologic materials. Includes data analysis and statistical methods. One lecture hour and six laboratory hours a week for one semester. Prerequisite: Nutrition 126L with a grade of at least C-.

#### **NTR 167. Undergraduate Seminar in Nutritional Sciences.**

One lecture hour a week for one semester. Prerequisite: Upper-division standing.

#### **NTR 370. Medical Nutrition Therapy I.**

The role of nutrition in prevention and treatment of chronic disease such as diabetes and heart disease. Three lecture hours a week for one semester. Prerequisite: Nutrition 326 with a grade of at least a C-; and credit with a grade of at least C- or registration for the following: Biology 365S, Biochemistry 369, and Nutrition 218 and 118L.

#### **NTR 371. Medical Nutrition Therapy II.**

Nutritional care of critically ill patients, including techniques of nutrition support. Three lecture hours a week for one semester. Prerequisite: Nutrition 326 with a grade of at least a C-; and credit with a grade of at least C- or registration for the following: Biology 365S, Biochemistry 369, and Nutrition 218 and 118L.

#### **NTR 372C. Practicum in Clinical Dietetics.**

Supervised practice in health care facilities. Forty hours of supervised practice a week for four weeks. Prerequisite: Admission to the Coordinated Program in Dietetics. Students must register for Nutrition 345M in the same semester.

#### **NTR 372F. Practicum in Food Services Systems Management.**

Supervised practice in food service facilities. Forty hours of supervised practice a week for four weeks. Prerequisite: Nutrition 245C and 355M with a grade of at least C- in each, and admission to the Coordinated Program in Dietetics. Students must register for Nutrition 373S in the same semester.

#### **NTR 373S. Practicum in Dietetic Administration.**

Supervised practice in the administration of food and nutrition programs. Forty hours of supervised practice a week for three weeks. Prerequisite: Admission to the Coordinated Program in Dietetics. Students must register for Nutrition 372F in the same semester.

#### **NTR 374C. Practicum in Community Dietetics.**

Supervised practice in one or more community-based nutrition programs. Forty hours of supervised practice a week for five weeks. Prerequisite: Nutrition 345M, 372C, 372F, and 373S with a grade of at least C- in each; and admission to the Coordinated Program in Dietetics.

#### **NTR 374P. Advanced Practicum in Dietetics.**

Culminating experience in the practice of administrative, clinical, or community dietetics. Forty hours of supervised practice a week for five weeks. Prerequisite: Nutrition 345M, 372C, 372F, and 373S with a grade

of at least C- in each; and admission to the Coordinated Program in Dietetics.

#### **NTR 379H. Honors Tutorial Course.**

Supervised individual research on a special topic in nutrition; oral presentation and preparation of a scholarly paper covering the research. May be based on laboratory, library, or field research. Conference course. May be taken twice for credit. May be repeated for credit. Prerequisite: Consent of the student's research supervisor and the departmental honors adviser.

### **Graduate Courses**

#### **NTR 380K. Research Methods in Nutritional Sciences.**

One lecture hour and six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in nutrition, or graduate standing and consent of instructor.

**Topic 1: Experimental Nutrition.**

**Topic 2: Nutritional Immunology.**

**Topic 3: Experimental Design and Statistics.**

**Topic 4: Advanced Experimental Design and Statistics.** Additional prerequisite: Nutrition 380K (Topic 3) or consent of instructor.

**Topic 5: Carcinogenesis.**

**Topic 6: Nutritional Biochemistry.**

#### **NTR 390. Recent Advances in Nutritional Sciences.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Advances in Nutritional Sciences I.** Required of all graduate students in nutrition.

**Topic 2: Carbohydrates and Fiber.**

**Topic 3: Lipids.**

**Topic 4: Vitamins and Minerals.**

**Topic 5: Minerals.**

**Topic 6: Molecular Nutritional Sciences.**

**Topic 7: Advances in Nutritional Sciences II.** Required of all graduate students in nutrition.

**Topic 8: Clinical Nutrition.** Additional prerequisite: Nutrition 370 or the equivalent or consent of instructor.

**Topic 10: Geriatric Nutrition and Metabolism.** Study of how aging influences nutrient requirements and metabolism at the biochemical and molecular level. Discussion of dietary changes to offset the effects of aging and to improve quality of life.

**Topic 12: Nutritional Immunology.** Nutrition 390 (Topic 9) and 390 (Topic 12) may not both be counted.

**Topic 13: Nutrigenomics.** Examine the interactions between nutrition and multi-level "omics" (e.g., genome, transcriptome, methylome) as they relate to chronic disease and health. Includes a focus on gene-diet interactions in the context of population genetic variation and the bidirectional molecular interactions that influence gene and protein expression as well as epigenetic modification. Nutrition 390 (Topic 11) and 390 (Topic 13) may not both be counted.

**Topic 14: Theories of Nutrition Behavior.** Explore and examine nutrition-related behavior through the application of health behavior theories and models. Includes theories such as the Health Belief Model, Theory of Planned Behavior, Social Cognitive Theory, Diffusion of Innovations, Transtheoretical Model, Social Support, and Social Ecological Model. Investigate theoretical constructs, benefits and limitations of each theory/model, considerations needed for unique populations or behaviors, and how to develop a theory-based program plan. Nutrition 390 (Topic: Theories of Nutrition Behavior) and 390 (Topic 14) may not both be counted.

**Topic 15: Principles of Epidemiology in Nutritional Sciences.** Examine the role of epidemiological methods as the basis for selection of study design and data collection tools in nutrition research such as dietary tools, biomarkers of diet or disease, and anthropometric measurements like obesity. Examine the interpretation of study results in nutrition research. Nutrition 390 (Topic: Prin Epidemiology in Nutr Sci) and 390 (Topic 15) may not both be counted.

### **NTR 392. Research Problems in Nutritional Sciences.**

One lecture hour and six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Nutrient Requirements.**

**Topic 3: Nutrition and Cancer.**

**Topic 4: Nutrition and Immunology.**

**Topic 5: Food Sciences.**

**Topic 6: Clinical Nutrition.**

**Topic 7: Nutrition Education.**

**Topic 8: Developmental Nutrition.**

**Topic 9: Foodservice Systems.**

**Topic 10: Nutrition and Metabolism.**

**Topic 11: Obesity.**

**Topic 12: Nutrition as Medicine.** Nutrition 392 (Topic 1) and 392 (Topic 12) may not both be counted.

**Topic 13: Nutrition and Disease Prevention.** Explore the role of nutrition as a critical preventive measure for both acute and chronic disease. Examine and evaluate the current research supporting the role of nutrition as a preventative therapy. Nutrition 392 (Topic: Nutrition/Disease Prevention) and 392 (Topic 13) may not both be counted.

### **NTR 194, 294, 394. Graduate Seminar in Nutritional Sciences.**

One, two, or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Clinical Nutrition.**

**Topic 3: Molecular and Cellular Nutrition.**

**Topic 4: Nutrition, Immunology, and Disease.**

**Topic 5: Nutrition through the Life Cycle.**

**Topic 6: Study Design and Research Methods.** Nutrition 194, 294, 394 (Topic 1) and Nutrition 194, 294, 394 (Topic 6) may not both be counted.

### **NTR 397C, 697C. Conference Course in Nutritional Sciences.**

For 397C, one lecture hour and six laboratory hours a week for one semester; for 697C, two lecture hours and twelve laboratory hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **NTR 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in nutrition and consent of the graduate adviser; for 698B, Nutrition 698A.

### **NTR 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in nutrition and consent of the supervising professor.

### **NTR 398T. Supervised Teaching in Nutrition.**

Teaching under close supervision; group meetings, individual conferences, and reports. Three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant.

### **NTR 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Operations Management Courses**

## **Operations Management: O M**

### **Lower-Division Courses**

### **Upper-Division Courses**

#### **O M 334M. Healthcare Operations Management.**

Overview of healthcare operations management. Focus on process diagramming, vocabulary, and analysis of effects of variability on healthcare operations in terms of increasing waiting lines, inventory, and patient safety issues. Focus on modern process improvement methodologies. Three lecture hours a week for one semester. Only one of the following may be counted: Operations Management 334M, 335, 335H, and 337 (Topic: Healthcare Operations). Offered on the letter-grade basis only. Prerequisite: Upper-division standing, and credit or registration for one of the following: Advertising 309R, 344K, Biomedical Engineering 335, Economics 329, Educational Psychology 371, Mathematics 316, 358K, Statistics 301, 301H, 309, 309H, Statistics and Data Sciences 302, 304, 306, 328M.

#### **O M 135, 235, 335. Operations Management.**

Restricted to students in the McCombs School of Business. The operations or production function and the skills required for analyzing and solving related problems. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Operations Management 334M, 235, 235H, and 337 (Topic: Healthcare Operations) Offered on the letter-grade basis only. Prerequisite: Credit or registration for Statistics 301, 301H, 309 or 309H.

#### **O M 235H, 335H. Operations Management: Honors.**

Restricted to students in the McCombs School of Business Honors Program. An investigation of the operations or production function, and the skills required for analyzing and solving related problems. The equivalent of one lecture hour a week for one semester. Only one of the following may be counted: Operations Management 334M, 235, 235H, and 337 (Topic: Healthcare Operations). Offered on the letter-grade basis only. Prerequisite: Business Administration 324H, Economics 304K and 304L, and Statistics 301, 301H, 309 or 309H.

#### **O M 137, 237, 337. Special Topics in Operations Management.**

Restricted to students in a business major. Analysis of contemporary management problems. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Varies with the topic.

**Topic 1: Total Quality Management.** Offered on the letter-grade basis only. Additional prerequisite: For business majors, Operations Management 334M, 235 or 235H with a grade of at least C-; for others, admission to an appropriate major sequence in engineering.

**Topic 3: Procurement and Supplier Management.** Strategic issues in procurement and supplier management; review of competitive

analysis and benchmarking; the purchasing role in fulfilling a firm's operational and competitive strategies; supplier evaluation, development, and relationship management; negotiating with suppliers for results; and commodity planning. Offered on the letter-grade basis only. Additional prerequisite: Operations Management 334M, 235 or 235H with a grade of at least C-.

**Topic 4: Information Technology for Supply Chains.** Provides an understanding of how information technology is used to coordinate supply chain activities across different industries. Students work in teams and undertake hands-on exercises to learn how to plan and coordinate operations. Management Information Systems 173, 273, 373 (Topic 13) and Operations Management 137, 237, 337 (Topic 4) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Management Information Systems 301, 301H, or 302F with a grade of at least C-.

**Topic 5: Project Management.** Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing.

**Topic 6: Supply Chain Analytics.** Study of dynamic demand forecasting models based on both, data aggregation as well as based on the hierarchical aggregation of point-of-sale predictive analytics. Learn to use the developed predictive dynamic models for operations planning and operations decision making. Only one of the following may be counted: Operations Management 337 (Topic: Supply Chain Analytics), 337 (Topic 6) or Business Analytics 372 (Topic 16). Offered on the letter-grade basis only. Additional prerequisite: Credit or registration for Operations Management 334M, 235, or 235H.

**Topic 7: New Product Development.** The integration of supply chain management into the product design and development process. Focuses on skills and knowledge involving product development and incorporating supply chain considerations. Emphasis on designing products that optimize the supply chain while maintaining the products vision from concept to customer. Operations Management 337 (Topic: Product Development) and 137, 237, 337 (Topic 7) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing.

**Topic 8: Health Care Analytics.** Explore key management challenges and how data may be leveraged to guide decisions and improve operations, with the unifying theme of providing health care services in a manner that leads to lower cost and higher quality. Only one of the following may be counted: Management Information Systems 373 (Topic: Healthcare Analytics), 373 (Topic 26), Operations Management 337 (Topic: Healthcare Analytics), 337 (Topic 8), Business Analytics 372 (Topic 17).

### **O M 338. Supply Chain Modeling and Optimization.**

Same as Business Analytics 338. Restricted to students in a business major. Framing, formulating, and applying quantitative optimization and descriptive models to support supply chain and operations management decisions, using spreadsheets and other software. Requires familiarity with spreadsheets. Three lecture hours a week for one semester. Only one of the following may be counted: Operations Management 337 (Topic 2), 338, Business Analytics 338. Offered on the letter-grade basis only. Prerequisite: Operations Management 334M, 235, or 235H.

### **O M 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in Operations Management.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

### **O M 366P. Operations Management Practicum.**

Restricted to students in a business major. Students apply skills in their major area and focus on additional project management skills through group projects conducted in a professional setting. Students may work with a private or a public enterprise. The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Completion of at least forty-five semester hours of college coursework, and credit or registration for Operations Management 334M, 235, or 235H.

### **O M 367. Strategic Supply Chain Management.**

Same as International Business 367. Restricted to students in a business major. Management of manufacturing process technology in international competition. Three lecture hours a week for one semester. International Business 367 and Operations Management 367 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Operations Management 334M, 235, or 235H with a grade of at least C-; Operations Management 338; and credit or registration for Operations Management 368.

### **O M 368. Logistics and Inventory Management.**

Restricted to students in a business major. Analysis of the entire flow of information, materials, and services from suppliers through factories and warehouses to the end customer. Includes logistics, supplier selection, and inventory management, using case studies, optimization, and simulation. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Operations Management 334M or 235 or 235H, with a grade of at least C-; and credit or registration for 338.

### **O M 179, 379. Independent Research in Operations Management.**

Restricted to students in a business major. Conference course. Only one of the following may be counted: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics, six of which must be upper-division; Management 336 or 336H, Operations Management 334M or 235 or 235H with a grade of at least C-; consent of instructor; and written approval before the first meeting of the course from the department chair's office on forms available for that purpose.

## **Graduate Courses**

### **O M 380. Seminar in Operations Management.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Combinatorial Optimization.** Concepts of computational complexity; the foundation of discrete mathematics and combinatorial theory.

**Topic 2: Linear Programming.** Model formulation: solution algorithms; duality theory; decomposition; sparse matrix issues; sensitivity and parametric analysis; optimization and matrix generation computer software.

**Topic 3: Network Optimization.** Applications, theory, and algorithms of the shortest path, maximum flow, and minimum cost flow problems. Discussion of classic and contemporary aspects of network optimization, including auction algorithms and cost-scaling techniques, to provide an integrated view of theory, algorithms, and applications. Additional prerequisite: Coursework in linear algebra and introductory coursework in operations management.

**Topic 4: Algorithms and Implementations.** Design, analysis, implementation, and use of computer algorithms. Introduction to fundamental data structures, sorting, recursive programs, dynamic data structures, memory management, algorithm design techniques and complexity analysis, and applications in optimization problems. Examples from linear and integer programming, covering, knapsack, graph-theoretic problems, network analysis, and scheduling.

**Topic 5: Business Process Simulation.** Modeling with simulation languages; random number generation; statistical analysis of input and output; variance reduction techniques; computer software applications. Additional prerequisite: Introductory coursework in operations management and statistics.

**Topic 6: Integer Programming.** Mathematical programming models with discrete (integer) decision alternatives. Model formulation and solution algorithms. Additional prerequisite: Coursework in linear programming.

**Topic 7: Nonlinear Programming.** Optimization of nonlinear functions of many variables subject to linear or nonlinear constraints. Basic theory, solution algorithms, applications, computer software. Additional prerequisite: Coursework in advanced calculus and linear algebra.

**Topic 8: Large-Scale System Optimization.** Formulation and solution of large mathematical optimization models. Focus on algorithms that exploit special structure of linear and nonlinear programming models. Applications. Additional prerequisite: Coursework in advanced calculus and linear programming.

**Topic 9: Stochastic Processes.** Discrete stochastic systems, queueing processes, inventory models, replacement, renewal theory, Markovian processes. Additional prerequisite: Mathematics 362K or the equivalent; completion of calculus and mathematical statistics and probability is recommended.

**Topic 10: Queueing Systems.** Deterministic queues, priorities, random walks, networks, approximations, and applications. Additional prerequisite: Operations Management 380 (Topic 9) or the equivalent.

**Topic 11: Graduate Seminars.** Required for doctoral students in operations management.

**Topic 12: Logistics.** Tools and concepts for the management of the flow of information, material, product, and cash between the initial suppliers of raw material and the ultimate consumers of finished goods.

**Topic 13: Management Planning and Control of Complex Systems.** Designed to provide guidance to doctoral students interested in research on new approaches to management planning and control of complex systems, and to MBA students interested in evaluating new practices currently being used in management planning and control activities.

**Topic 15: Optimization I.** Introduction to operations research and optimization, including linear programming, network models, deterministic dynamic programming, decisions under uncertainty, game theory, inventory models, and simulation. Emphasis on mathematical programming models and algorithmic approach of operations research problems.

**Topic 16: Optimization II.** Designed to provide students, especially those involved in research, with more advanced optimization tools in several broad areas. Includes nonlinear programming, graph theory, integer programming, Markov chains, probabilistic dynamic programming, queueing theory, and metaheuristics. Emphasis on mathematical programming modeling and algorithmic approach of operations research problems. Additional prerequisite: Operations Management 380 (Topic 15).

**Topic 17: Supply Chain Analytics.** Supply chain analytics combines analytical tools with technology to identify trends, compare performance and highlight improvement opportunities in supply chain areas including sourcing, inventory management, manufacturing,

quality, sales and logistics. Additional prerequisite: Consent of instructor.

#### **O M 184, 284, 384. Topics in Business Analytics.**

Restricted to students admitted to the Master of Science in Information, Risk, and Operations Management (MSIROM) program. Selected topics in business analytics. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **O M 186, 286, 386. Current Issues in Operations Management.**

Strategic problems, policies, models, and concepts for the design and control of new or existing operations systems. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Service Management.**

**Topic 2: Supply Chain and Operations Strategy.**

**Topic 3: Strategic Quality Management.**

**Topic 4: Operations Practicum.**

**Topic 5: Managing Projects.**

**Topic 6: Decision-Support Modeling.** Operations research and modeling to assist in decision making through building data models and operations research software systems. Management Information Systems 383N (Topic: Decision-Support Modeling) and Operations Management 386 (Topic 6) may not both be counted.

#### **O M 392. Seminar: Operations Management.**

Intensive analysis of operations management issues. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Admission to the doctoral degree program and consent of instructor.

**Topic 1: Operations Management Colloquium.**

### **Professional Courses**

## **Operations Research and Industrial Engineering Courses**

### **Operations Research and Industrial Engineering: ORI**

#### **Lower-Division Courses**

#### **Upper-Division Courses**

##### **ORI 366. Operations Research Models.**

Same as Mechanical Engineering 366L. Formulation and solution-interpretation for operations research models requiring, for example, optimization, simulation, or analysis of Markov chains or queues. Applications include manufacturing design and control, routing and scheduling, plant location, inventory analysis, and management of queueing systems. Three lecture hours a week for one semester. Mechanical Engineering 366L and Operations Research and Industrial Engineering 366 may not both be counted. Prerequisite: For engineering majors, Mathematics 408D or 408M and Mechanical Engineering 318M with a grade of at least C- in each; for non-engineering majors, upper-division standing and written consent of instructor.

##### **ORI 367. Simulation Modeling.**

Same as Mechanical Engineering 367S. Basic concepts of discrete-event simulation. Statistical input and output analysis. Application of simulation software. Modeling of systems under uncertainty. Three lecture hours a week for one semester. Mechanical Engineering 367S and Operations Research and Industrial Engineering 367 may not both be

counted. Prerequisite: For engineering majors, Mechanical Engineering 318M with a grade of at least C-, Mechanical Engineering 335 or the equivalent; for non-engineering majors, upper-division standing and written consent of instructor.

#### **ORI 369. Decision Analysis.**

Principles and application of techniques for the logical illumination of complex decision problems within any context. Subjects may include utility theory, probability as a statement of belief, risk preference, value of information and control, probability assessment, influence diagrams, risk sharing and scaling, and life-and-death decision making. Three lecture hours a week for one semester. Prerequisite: Mechanical Engineering 353 or equivalent with a grade of at least C-.

#### **ORI 370. Statistical Methods in Manufacturing.**

Contemporary concepts and methods for statistical quality design and control will be presented. These include: descriptive statistics, behavior of process over time, design and interpretation of control charts, process capability studies, measurement system analysis, correlation and regression analysis, design and analysis of two level factorial experiments, design and analysis of two level fractional factorial experiments, response surface methodology, and Taguchi approach to robust design. Three lecture hours a week for one semester. Mechanical Engineering 379M (Topic: Stat Methods in Manufacturing) and Operations Research and Industrial Engineering 370 may not both be counted. Prerequisite: For engineering majors, Mechanical Engineering 318M with a grade of at least C-, Mechanical Engineering 335 or the equivalent; for others, upper-division standing and written consent of instructor.

#### **ORI 373. Facility Planning and Logistics.**

Design and analysis of production systems, including plant layout and location, material flow, and flexible manufacturing. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 373K, Operations Research and Industrial Engineering 371, 373. Prerequisite: For engineering majors, ME 318M or the equivalent with a grade of at least C, and M E 335 or the equivalent; for non-engineering majors, upper-division standing and written consent of instructor.

#### **ORI 374. Production and Inventory Management.**

Introduction to production and inventory models; basic factory dynamics; analysis of variability; push-and-pull production control; sequencing and dispatching. Three lecture hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 375K, Operations Research and Industrial Engineering 372, 374. Prerequisite: For engineering majors, Mechanical Engineering 318M or the equivalent with a grade of at least C, Mechanical Engineering 335 or the equivalent; for non-engineering majors, upper-division standing and written consent of instructor.

#### **ORI 177K, 277K, 377K. Projects in Operations Research and Industrial Engineering.**

Independent project carried out under the supervision of a faculty member in operations research & industrial engineering. Student prepares a project proposal and a final report, each of which is evaluated by the faculty committee on individual projects. For 177K, three to five laboratory hours and one consultation hour with the faculty supervisor a week for one semester; for 277K, five to ten laboratory hours and one consultation hour with the faculty supervisor a week for one semester; for 377K, ten to fifteen laboratory hours and one consultation hour with the faculty supervisor a week for one semester. Prerequisite: A University grade point average of at least 2.50 and a grade point average

in the major of at least 2.50; approval of project proposal by the faculty committee on individual projects.

### **Graduate Courses**

#### **ORI 180M, 280M, 380M, 680M, 980M. Research.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in operations research and industrial engineering.

#### **ORI 383. Healthcare Delivery Models.**

Study the operations research literature on the use of models and techniques related to healthcare delivery. Discuss decomposition techniques for integer programs, simulation, Markov chains, and stochastic programming. Three lecture hours per week for one semester. Operations Research and Industrial Engineering 383 and 397 (Topic: Health Care Delivery Models) may not both be counted. Prerequisite: Second year or higher graduate standing; graduate courses in linear programming, integer programming, statistics, stochastic processes.

#### **ORI 384. Emerging Trends in Operations Research and Industrial Engineering.**

Explore the development and use of operations research and industrial engineering techniques via weekly presentations and speakers, including faculty and visiting experts. Three lecture hours a week for one semester. Operations Research and Industrial Engineering 384 and 397 (Topic: Emerging Topics in ORIE) may not both be counted. Prerequisite: Second year or higher graduate standing in Operations Research and Industrial Engineering, or related program.

#### **ORI 390Q. Industrial Engineering.**

Industrial engineering techniques for quantitative solution of contemporary systems and management problems. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Project Management.** Methods for organizing, coordinating, and controlling resources to minimize risk and conflict and to maintain budgets and schedules. Topics include evaluation of competing alternatives, organization of a project, scheduling of tasks and resources, and the role of management over time.

**Topic 2: Production and Inventory Control.** Issues in inventory control with known and unknown demand, materials requirement planning, just-in-time, pull control systems, operations scheduling, dispatching and aggregate planning, and the basic dynamics of production and inventory control.

**Topic 4: Modeling and Analysis of Manufacturing Systems.** Applications of analysis to manufacturing processes, using mathematical models, optimization, and stochastic analysis. Economic evaluation, identification of bottlenecks, estimation of resources requirements, and system design.

**Topic 5: Scheduling Theory and Applications.** Modeling, analysis, and solution techniques for production and service scheduling problems, machine scheduling in deterministic and stochastic settings, exact and heuristic algorithms, and industrial applications, including semiconductor manufacturing and airlines applications. Prerequisite: Operations Research and Industrial Engineering 391Q (Topic 4) or the equivalent.

**Topic 6: Multicriteria Decision Making.** Techniques for problems involving more than one criterion measured on incommensurate scales, such as dollars, reliability, and quality of life. Topics include methods for generating nondominated solutions, interactive procedures for continuous problems, goal programming, multi-attribute utility theory, and the analytic hierarchy process.

**Topic 7: Statistical Methods in Manufacturing.** Same as Mechanical Engineering 392Q (Topic 10: Statistical Methods in Manufacturing).

Statistical monitoring of manufacturing processes; methods and applications of various control charts; formal design of experiments (DOE), including the statistical evaluation of main and interaction effects, as well as intelligent experimentation through reduced factorial experimental design; Taguchi's design philosophy as applied to response surface methods and gradient-based search techniques; and advanced issues in quality control and design of manufacturing systems. Additional prerequisite: Knowledge of basic probability and statistics and consent of instructor.

**Topic 8: Systems Modeling.** Use approaches from operations research and industrial engineering to construct systems models that permit rigorous analysis of complex, real-world problems. Particular emphasis is devoted to models that integrate concepts from engineering, economics, natural sciences, and policy. Featured modeling challenges are chosen to showcase broad ranges of methodologies and application domains. Three lecture hours a week for one semester. Operations Research and Industrial Engineering 390Q (Topic 8) and 397 (Topic: Systems Modeling) may not both be counted. Additional prerequisite: Graduate standing and a course in optimization, or consent of instructor. Prior coursework in microeconomics is helpful but not required.

### **ORI 390R. Statistics and Probability.**

Concepts of probability and mathematical statistics; application of these analytical methods to planning and evaluation of research and industrial experimentation. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and an undergraduate calculus-based course in probability and statistics or consent of instructor.

**Topic 1: Applied Probability.** Basic probability theory, combinatorial analysis of random phenomena, conditional probability and independence, parametric families of distributions, expectation, distribution of functions of random variables, limit theorems.

**Topic 2: Mathematical Statistics.** Sampling distributions, properties of estimators, point and interval estimation, hypothesis testing, introduction to multivariate and nonparametric statistics.

**Topic 3: Time-Series Modeling, Analysis, and Control.** Same as Mechanical Engineering 384Q (Topic 3: Time-Series Modeling, Analysis, and Control). Methods for analytical modeling, analysis, prediction, and control of linear, stationary time series. Includes examples of advanced research in nonstationary time-series modeling and applications in manufacturing, financial engineering, geosciences, and other areas. Students complete a project on a topic of their choice. Additional prerequisite: Graduate standing, Mechanical Engineering 364L or the equivalent, an undergraduate calculus-based course in probability and statistics or consent of instructor.

**Topic 4: Reliability Theory and Modeling.** Theory of probabilistic and statistical models of aging elements, reliability, replacement, and repair maintenance, and their integration in surveillance, quality control, and manufacturing problems.

**Topic 5: Applied Stochastic Processes.** Poisson process, renewal theory, discrete and continuous-time Markov chains, queueing and reliability applications.

**Topic 6: Regression and Analysis of Variance.** Fitting equations to data; joint confidence regions; partial correlation analysis; general linear hypotheses; dummy variables; diagnostics and remedial measures; design of experiments; fixed, random, and mixed models; factorial and nested designs. Additional prerequisite: Operations Research and Industrial Engineering 390R (Topic 2) or consent of instructor.

**Topic 8: Queueing Theory.** Introduction to the classical and modern theories of queueing systems. Simple Markovian queues; the M/G/1 and G/G/1 queues; Jackson and Kelly networks; multiclass networks; stability, scheduling, and routing in queueing networks; fluid

and diffusion approximations. Additional prerequisite: Operations Research and Industrial Engineering 390R (Topic 1) or consent of instructor.

**Topic 9: Systems Simulation.** Random number generation, simulation experiments, statistical verification, clock routines, simulation language applications, industrial problems.

**Topic 14: Special Topics in Probability, Stochastic Processes, and Statistics.** Study of specialized topics, such as advanced stochastic processes, Bayesian statistics, simulation, and stochastic optimization, intended to introduce and stimulate further research. Additional prerequisite: Consent of instructor.

**Topic 15: Nuclear Safety and Security.** Same as Mechanical Engineering 388H. Probabilistic risk assessment models and nuclear arms nonproliferation, including failure classifications; failure mode, effects, and criticality analysis (FMECA); fault and event trees; and reliability block diagrams. Discussion of specific areas from the Code of Federal Regulations. Only one of the following may be counted: Mechanical Engineering 337G, 388H, Operations Research and Industrial Engineering 390R (Topic 15).

**Topic 16: Markov Decision Processes.** The theory of Markov decision processes, also known as stochastic dynamic programming. Includes finite horizon, total discounted cost, and average cost problems; continuous-time and semi-Markov models; and applications in finance, queueing, and control theory. Additional prerequisite: A course in stochastic processes or consent of instructor.

**Topic 17: Decision Analysis.** Principles and application of techniques for the logical illumination of complex decision problems within any context. Subjects may include utility theory, probability as a statement of belief, risk preference, value of information and control, probability assessment, influence diagrams, risk sharing and scaling, and life-and-death decision making.

**Topic 18: Decision Engineering.** Application of decision analysis in practice including framing, decision modeling, sensitivity analysis, discretization, psychological aspects of decision making, probability assessment, and challenges to the decision analysis framework. May include related subjects such as real options, bidding, and portfolio management.

### **ORI 391Q. Optimization.**

Mathematical optimization techniques with applications to engineering and industrial problems. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and a course in operations research methods.

**Topic 1: Nonlinear Programming.** Theory and solution techniques for nonlinear, continuous optimization problems. Topological properties of functions, general convexity, optimality conditions, line search methods, unconstrained techniques, and algorithms for constrained formulations. Lagrangian duality theory and bundle methods for nondifferentiable optimization.

**Topic 2: Dynamic Programming.** Systems that require sequential decisions. Problem modeling and solution algorithms for deterministic and stochastic systems.

**Topic 3: Network Flow Programming.** Optimization problems related to network flows, shortest path, maximum flow, minimum cost flow, generalized networks, nonlinear costs. Modeling, theory, and computational methods.

**Topic 4: Integer Programming.** Models, theory, and computational methods for problems with discrete decision alternatives. Greedy algorithms, branch and bound, cutting plane methods, Lagrangian relaxation, and heuristics.

**Topic 5: Linear Programming.** Models, algorithms, and theory of linear programming. Linear programming geometry, primal, dual and revised simplex algorithms, duality theory, optimality conditions, sensitivity analyses, interior point methods, and computer implementations.

**Topic 6: Algorithms for Mixed Integer Programming.** Methods and software for solving large-scale mixed integer programming problems: intelligent heuristics, decomposition, lower bounding schemes, limited enumeration, and simple methods for quickly finding good feasible solutions. Numerous examples taken from industry. Additional prerequisite: A graduate course in integer programming.

**Topic 8: Combinatorial Optimization.** Optimization of combinatorial structures; computational complexity; stable marriages, shortest paths, maximum flows, minimum-cost flows, matching problems; approximation algorithms for NP-hard problems.

**Topic 9: Large-Scale Systems Optimization.** Mathematical programs with special structure, Dantzig-Wolfe decomposition, partitioning and relaxation procedures, duality and decomposition, compact inverse methods, applications in engineering and management.

**Topic 10: Stochastic Optimization.** Optimization of mathematical programming models under uncertainty; model formulations; exact, bounding-and-approximation, and Monte Carlo sampling-based solution techniques that exploit special structures; applications; use of algebraic modeling language.

**Topic 11: Advanced Mathematical Programming.** Advanced topics in modeling and algorithms for linear, integer, nonlinear, and network programming. Model formulation considerations, decomposition algorithms, interior point and active set methods, duality, modern optimization software. Additional prerequisite: Operations Research and Industrial Engineering 391Q (Topic 5).

**Topic 12: Metaheuristics.** Reactive and adaptive tabu search methods, simulated annealing, genetic algorithms, and greedy randomized adaptive search methods. Emphasis on theoretical context of methods and on similarities and distinguishing characteristics.

**Topic 14: Computational Optimization.** Computer programming methods and tools for implementing advanced optimization algorithms, working with data, and visualizing results. Code organization techniques, debugging, and building complex software. Prerequisite: Coursework in computer programming, algorithms and optimization, and probability; or consent of instructor.

**Topic 15: Convex Optimization.** Same as Electrical and Computer Engineering 381K (Topic 18). The fundamentals of convex optimization with a focus on modeling, computation and scale: convex sets and functions, unconstrained optimization via first and second-order methods, duality, constrained optimization, SDPs, stochastic and sub-gradient descent methods, ADMMs, and applications. Only one of the following may be counted: Electrical and Computer Engineering 381K (Topic 18), Electrical Engineering 381K (Topic 18), 381V (Topic: Large Scale Optimization), Operations Research and Industrial Engineering 391Q (Topic 15). Additional prerequisite: Consent of instructor.

**Topic 16: Optimization in Engineering Systems.** Same as Electrical and Computer Engineering 380N (Topic 11). Formulation and solution of continuous optimization problems in engineering design and operations. Only one of the following may be counted: Electrical and Computer Engineering 380N (Topic 11), Electrical Engineering 380N (Topic 11), Operations Research and Industrial Engineering 391Q (Topic 16).

**Topic 17: Optimization Under Uncertainty.** Introduction to optimization models and methodologies for addressing uncertainty-affected decision problems. Examine fundamental techniques from stochastic programming, robust optimization, and distributionally robust optimization. Explore theory through concrete examples from production planning, supply chain management, project management, portfolio selection, machine learning. Three lecture hours per week for one semester. Operations Research and Industrial Engineering 391Q (Topic 17) and 397 (Topic: Optimization Under Uncertainty) may not both be counted. Additional prerequisite: Graduate-level knowledge of linear programming, integer programming, nonlinear programming,

probability, and statistics. Knowledge of convex optimization and analysis is beneficial.

### **ORI 397. Current Studies in Operations Research and Industrial Engineering.**

The equivalent of three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **ORI 197K, 297K, 397K. Graduate Seminar.**

One, two, or three lecture hours a week for one semester. Normally required of all students in operations research and industrial engineering. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **ORI 397M. Graduate Research Internship.**

Students conduct research in an industrial setting to gain practical experience in their area of interest. Twenty to forty hours of fieldwork a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser and supervising faculty member.

### **ORI 197P, 297P, 397P. Projects in Operations Research and Industrial Engineering.**

Independent project carried out under the supervision of a faculty member in operations research and industrial engineering. Three, six, or nine laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **ORI 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in operations research and industrial engineering and consent of the graduate adviser; for 698B, Operations Research and Industrial Engineering 698A.

### **ORI 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in operations research and industrial engineering and consent of the graduate adviser.

### **ORI 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

## **Performance Courses**

The following instruments are offered under PRF: Bassoon (BSN), Clarinet (CLA), Double Bass (D B), Drum Set (DRS), Euphonium (EUP), Flute (FLU), French Horn (F H), Guitar (GUI), Harp (HAR), Harpsichord (HSC), Oboe (OBO), Opera (OPR), Organ (ORG), Percussion (PER), Piano (PIA), Recorder (REC), Saxophone (SAX), Trombone (TRO), Trumpet (TRU), Tuba (TBA), Vibraphone (VIB), Viola (VIA), Violin (VIO), Violoncello (V C), Voice (VOI).

## Performance: PRF

### Lower-Division Courses

#### **PRF 201. Lower-Division Music Performance: Secondary.**

Individual instruction in music performance for nonmusic majors and for music majors studying a secondary instrument. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, oboe, organ, percussion, piano, recorder, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice. Individual instruction. May be repeated for credit. Prerequisite: The ability to read music, and, for most instruments, an audition. For Guitar 201, at least two years of classical guitar lessons. For Piano 201, at least one year of piano lessons.

#### **PRF 202. Lower-Division Piano: Secondary.**

Individual instruction beyond Music 210K. May be repeated for credit when the topics vary. Prerequisite: Consent by audition.

#### **PRF 210. Lower-Division Music Performance: Principal.**

Individual instruction in the principal instrument for students pursuing the Bachelor of Arts in Music or the Bachelor of Music with a major in music studies, music theory, composition, music literature, or music performance. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice. Individual instruction. May be repeated for credit. Prerequisite: For Organ 210, Piano 201 or the equivalent.

#### **PRF 212, 312. Lower-Division Music Performance: Major.**

Individual instruction in music performance for students majoring in music performance or music performance pedagogy. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, harpsichord, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, and violoncello. Individual instruction. May be repeated for credit.

#### **PRF 212J, 312J, 412J. Lower-Division Music Performance: Improvisation.**

Individual instruction in improvisation for students majoring in jazz composition or jazz performance. This course is offered in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone. Individual instruction. May be repeated for credit.

### Upper-Division Courses

#### **PRF 251. Upper-Division Music Performance: Secondary.**

Individual instruction in music performance for nonmusic majors and for music majors studying a secondary instrument. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, harpsichord, oboe, organ, percussion, piano, recorder, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice. Individual instruction. May be repeated for credit. Prerequisite: Course 201 in the secondary instrument for four semesters, or the equivalent, and approval of the area faculty.

#### **PRF 260. Upper-Division Music Performance: Principal.**

Individual instruction in the principal instrument for students pursuing the Bachelor of Arts in Music or the Bachelor of Music with a major in music studies, music theory, composition, music literature, or music performance. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, harpsichord, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice. Individual instruction.

May be repeated for credit. Prerequisite: Course 210 in the principal instrument for four semesters, or the equivalent, and approval of the music faculty.

#### **PRF 262, 362. Upper-Division Music Performance: Major.**

Individual instruction in music performance for students majoring in music performance. This course is offered in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, harpsichord, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice. Individual instruction. May be repeated for credit. Prerequisite: For Voice 462, Voice 210 for four semesters, or the equivalent, and approval of the music faculty; for other instruments, course 412 in the major instrument for four semesters, or the equivalent, and approval of the music faculty.

#### **PRF 262J, 362J. Upper-Division Music Performance: Improvisation.**

Individual instruction in improvisation for students majoring in jazz composition and jazz performance. This course is offered in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone. Individual instruction. May be repeated for credit. Prerequisite: For jazz composition majors, course 212J for two semesters, or the equivalent, and approval of the appropriate music faculty; for jazz performance majors, course 412J for two semesters, or the equivalent, and approval of the appropriate music faculty.

### Graduate Courses

#### **PRF 280, 380, 480. Graduate Course in Performance.**

Offered in opera and in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice. Individual instruction. May be repeated for credit. Prerequisite: Graduate standing in music and consent of the graduate adviser.

#### **PRF 280J, 480J. Graduate Course in Performance: Jazz Improvisation.**

Individual instruction in jazz improvisation in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone. Individual instruction. May be repeated for credit. Prerequisite: Graduate standing in music and consent of the graduate adviser.

#### **PRF 280V, 480V. Graduate Course in Performance: Collaborative Piano.**

Individual instruction in collaborative piano (accompanying). Individual instruction. May be repeated for credit. Prerequisite: Admission to a graduate program in music and consent of the graduate adviser.

#### **PRF 290, 490. Advanced Graduate Course in Performance.**

Offered in opera and in the following instruments: bassoon, clarinet, double bass, euphonium, flute, French horn, guitar, harp, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice. Individual instruction. May be repeated for credit. Prerequisite: Admission to a doctoral degree program in music and consent of the graduate adviser.

#### **PRF 290J, 490J. Advanced Graduate Course in Performance: Jazz Improvisation.**

Individual instruction in jazz improvisation in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone. Individual instruction. May be repeated for credit.

Prerequisite: Admission to a doctoral degree program in music and consent of the graduate adviser.

### **PRF 290V, 490V. Advanced Graduate Course in Performance: Collaborative Piano.**

Individual instruction in collaborative piano (accompanying). Individual instruction. May be repeated for credit. Prerequisite: Admission to a doctoral program in music and consent of the graduate adviser.

## **Professional Courses**

# **Persian Courses**

## **Persian: PRS**

### **Lower-Division Courses**

#### **PRS 601C. Intensive Persian I.**

First semester of intensive Persian language instruction. Six lecture hours a week for one semester. Persian 601C and 506 may not both be counted. Persian 601C and 507 may not both be counted.

#### **PRS 506. First-Year Persian I.**

Elementary colloquial Persian. Five lecture hours a week for one semester. Persian 601C and 506 may not both be counted.

#### **PRS 507. First-Year Persian II.**

Continuation of Persian 506. Elementary literary Persian. Five lecture hours a week for one semester. Persian 601C and 507 may not both be counted. Prerequisite: Persian 506 with a grade of at least C.

#### **PRS 611C. Intensive Persian II.**

Second semester of intensive Persian language instruction. Six lecture hours a week for one semester. Only one of the following may be counted: Persian 611C, 612C, 512K. Only one of the following may be counted: Persian 611C, 612C, 512L. Prerequisite: Persian 601C or 507 with a grade of at least C.

#### **PRS 612C. Intensive Persian for Heritage Speakers.**

Designed for heritage speakers with prior exposure to Persian speaking and listening. This may include heritage Persian language speakers who have had little or no formal instruction in the language, and speakers who understand at a near-native level but have no knowledge or limited knowledge of reading and writing. Six lecture hours a week for one semester. Only one of the following may be counted: Persian 611C, 612C, 512K. Only one of the following may be counted: Persian 611C, 612C, 512L.

#### **PRS 512K. Second-Year Persian I.**

Not open to native speakers of Persian. Five lecture hours a week for one semester. Only one of the following may be counted: Persian 611C, 612C, 512K. Prerequisite: Persian 507 with a grade of at least C.

#### **PRS 512L. Second-Year Persian II.**

Not open to native speakers of Persian. Continuation of Persian 512K. Five lecture hours a week for one semester. Only one of the following may be counted: Persian 611C, 612C, 512L. Prerequisite: Persian 512K with a grade of at least C.

#### **PRS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Persian.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken

in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **PRS 322K. Intermediate Persian I.**

Not open to native speakers of Persian. First semester of intermediate Persian language instruction. Three lecture hours a week for one semester. Prerequisite: Persian 611C, 612C, or 512L with a grade of at least C.

### **PRS 322L. Intermediate Persian II.**

Not open to native speakers of Persian. Second semester of intermediate Persian language instruction. Three lecture hours a week for one semester. Prerequisite: Persian 322K with a grade of at least C.

### **PRS 329. Topics in Persian Language, Literature, and Culture.**

Study of various aspects of Persian linguistics, literature, and culture. Conducted in Persian. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Persian 612C or 322K.

**Topic 1: Ferdowsi's Shahnameh.**

**Topic 2: Sa'di's Golestan.** Additional prerequisite: Persian 512L.

**Topic 3: Hafez's Ghazals.**

**Topic 4: Sadeq Hedayat and Twentieth-Century Persian Fiction.**

**Topic 5: Forugh Farrokhzad and Modernist Persian Poetry.**

**Topic 6: Persian Prose Nonfiction.**

**Topic 7: The Classics of Persian Poetry.** Conducted in Persian. Only one of the following may be counted: Comparative Literature 323 (Topic: Classics of Persian Poetry), Middle Eastern Languages and Cultures 321 (Topic: Classics of Persian Poetry), Middle Eastern Studies 342 (Topic: Classics of Persian Poetry), Persian 329 (Topic 7). Additional prerequisite: Persian 611C or 612C with a grade of at least C.

**Topic 8: Iranian Cinema.** Only one of the following may be counted: Comparative Literature 323 (Topic: Iranian Cinema), Middle Eastern Languages and Cultures 321 (Topic: Iranian Cinema), Middle Eastern Studies 342 (Topic: Iranian Cinema), Persian 329 (Topic 8).

**Topic 9: Media Persian.** Introduction to the language of media in Iran and the rest of the Persianate world. Three lecture hours a week for one semester. Persian 329 (Topic: Media Persian) and 329 (Topic 9) may not both be counted.

**Topic 10: Iranian Women Poets.** Persian 329 (Topic: Iranian Women Poets) and 329 (Topic 10) may not both be counted.

### **PRS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Persian.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **PRS 130D. Persian across Disciplines.**

Students read and discuss Persian language materials related to the subject matter of another designated course. One lecture hour a week for one semester. No more than three semester hours may be counted toward the major in either Middle Eastern Studies or Middle Eastern Languages and Culture. May be repeated for credit. Prerequisite: Upper-division standing, Persian 322L, and consent of instructor.

### **PRS 369. Conference Course in Persian Language and Literature.**

Supervised individual study of selected problems in Persian language or literature. Conference course. May be repeated for credit. Prerequisite: Nine semester hours of upper-division coursework in Persian and consent of instructor.

### **PRS 679H. Honors Tutorial Course.**

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper. Conference course for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Persian Language and Literature Honors Program; for 679HB, Persian 679HA.

## **Graduate Courses**

### **PRS 380C. Topics in Persian Language.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and six semester hours of upper-division coursework in Persian or consent of instructor.

### **PRS 381H. Intensive Graduate Language Instruction I.**

Intensive cultural and literacy-focused training in Persian at the beginning level in preparation for research with Persian sources. Includes an independent project component. Incoming students are placed in the appropriate level by means of a departmental placement test. Six lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PRS 381J. Intensive Graduate Language Instruction II.**

Intensive cultural and literacy-focused training in Persian at the low-intermediate level in preparation for research with Persian sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Six lecture hours a week for one semester. Prerequisite: Graduate standing and Persian 381H with a grade of at least B.

### **PRS 381K. Intermediate Graduate Language Instruction I.**

Intensive cultural and literacy-focused training in Persian at the intermediate level in preparation for research with Persian sources. Includes an independent project component. Incoming students are placed in the appropriate level by means of a departmental placement test. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Persian 381J with a grade of at least B.

### **PRS 381L. Intermediate Graduate Language Instruction II.**

Intensive cultural and literacy-focused training in Persian at the high-intermediate level in preparation for research with Persian sources. Includes an independent project component. Incoming students are placed in the appropriate level by means of a departmental placement test. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Persian 381K with a grade of at least B.

### **PRS 382C. Topics in Persian Linguistics and Philology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in Persian studies.

### **PRS 384C. Topics in Persian Literature.**

Study of various aspects and periods of Persian language and literature. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, three semester hours of upper-division coursework in Persian, and consent of instructor.

**Topic 1: Ferdowsi's Shahnameh.**

**Topic 2: Sa'di's Golestan.**

**Topic 3: Hafez and Classical Persian Lyric Poetry.**

**Topic 4: Sadeq Hedayat and Twentieth-Century Persian Prose Fiction.**

**Topic 5: Forugh Farrokhzad and Modernist Persian Poetry.**

**Topic 6: Iranian Women Writers.**

**Topic 7: Persian Prose Nonfiction, Past and Present.**

**Topic 9: Iranian Drama.**

**Topic 10: Iranian Film and Fiction.** Same as Middle Eastern Studies 386 (Topic 2). Middle Eastern Studies 386 (Topic 2) and Persian 384C (Topic 10) may not both be counted.

### **PRS 389. Conference Course in Persian Studies.**

Supervised individual study of selected problems in Persian studies. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, consent of the graduate adviser, and consent of instructor.

### **PRS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Persian studies and consent of the graduate adviser; for 698B, Persian 698A.

### **PRS 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Persian studies and consent of the graduate adviser.

### **PRS 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Petroleum and Geosystems Engineering Courses**

## **Petroleum and Geosystems Engineering: PGE**

### **Lower-Division Courses**

#### **PGE 301. Engineering, Energy, and the Environment.**

Enrollment limited to beginning students in petroleum and geosystems engineering. Introduction to the field of petroleum engineering. Overview of energy supply and demand. Studies subsurface engineering and engineering problem-solving methods, with an emphasis on fossil energy exploitation and geologic CO<sub>2</sub> storage. Includes aspects of basic petroleum geology. Two lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C- or registration for Geological Sciences 401 or 303.

#### **PGE 305. Energy and the Environment.**

The forms of current and potential energy sources, and how these might impact the earth's environment. Three lecture hours and one and one-half laboratory hours a week for one semester. May not be counted toward a degree in geological sciences, geosystems engineering and hydrology, or petroleum engineering.

#### **PGE 310. Formulation and Solution of Geosystems Engineering Problems.**

Introduction to mathematical equations typically encountered in petroleum and geosystems engineering; methods to solve equations graphically, analytically, and with numerical methods; applications of computers to problem solving. Three lecture hours a week for one

semester. Offered on the letter-grade basis only. Prerequisite: Physics 303K and 103M and credit or registration for Mathematics 427J or 427K.

### **PGE 312. Physical and Chemical Behavior of Fluids I.**

Principles of organic chemistry; phase behavior; properties of hydrocarbon gases and liquids and oil field waters; overview of laboratory phase behavior measurements; material balance calculations. Three lecture hours a week for one semester. Petroleum and Geosystems Engineering 312 and 427 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Chemistry 302 with a grade of at least C-.

### **PGE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Petroleum and Geosystems Engineering.**

Used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Petroleum and Geosystems Engineering. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## **Upper-Division Courses**

### **PGE 421K. Physical and Chemical Behavior of Fluids II.**

Applications of thermodynamics and physical chemistry to petroleum and geosystems engineering. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Petroleum and Geosystems Engineering 326.

### **PGE 322K. Transport Phenomena in Geosystems.**

Applications of mass, heat, and momentum balances to fluid flow problems; shell balances; non-Newtonian fluids; transport processes through permeable media. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Engineering Mechanics 306, and Mathematics 427J or 427K with a grade of at least C- in each.

### **PGE 323K. Reservoir Engineering I: Primary Recovery.**

Restricted to geosystems engineering and hydrogeology and petroleum engineering majors. Classification of subsurface reservoirs by type and recovery mechanism; reserve estimates based on material balance; steady-state and transient fluid flow in permeable reservoir rocks as applied to subsurface engineering problems. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following with a grade of at least C-: Petroleum and Geosystems Engineering 310, 326, and 427; and credit with a grade of at least C- or registration in 322K; and credit or registration in Petroleum and Geosystems Engineering 424.

### **PGE 323L. Reservoir Engineering II: Secondary and Tertiary Recovery.**

Restricted to geosystems engineering and hydrogeology and petroleum engineering majors. Introduction to reservoir displacement processes; water and gas injection; enhanced recovery. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C- for Mathematics 427J or 427K, Petroleum and Geosystems Engineering 310, 322K, 323K, and 424.

### **PGE 323M. Reservoir Engineering III: Numerical Simulation.**

Restricted to geosystems engineering and hydrogeology and petroleum engineering majors. Mathematical equations governing fluid flow in reservoirs; numerical methods to solve the equations; numerical reservoir simulation; treatment of wells; history matching; a simulation project performed using a commercial simulator. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

Prerequisite: Petroleum and Geosystems Engineering 323L with a grade of at least C-.

### **PGE 424. Petrophysics.**

Properties of rocks; measurement and interpretation of petrophysical properties; application of petrophysics to subsurface engineering problems; interaction of resident fluids with rocks. Extensive written reporting. Three lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Geological Sciences 416M or 316P, Petroleum and Geosystems Engineering 333T and Physics 303L with a grade of at least C- and credit or registration with at least a C- for Petroleum and Geosystems Engineering 322K.

### **PGE 325L. Cooperative Engineering.**

This course covers the work period of petroleum engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for three semesters. The student must complete Petroleum and Geosystems Engineering 325LX, 325LY, and 325LZ before a grade and degree credit are awarded. Prerequisite: For 325LX, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 325LY, Petroleum and Geosystems Engineering 325LX and appointment for a full-time cooperative work tour; for 325LZ, Petroleum and Geosystems Engineering 325LY and appointment for a full-time cooperative work tour.

### **PGE 225M. Cooperative Engineering.**

Covers the work period of petroleum engineering students in the Cooperative Engineering Program. Forty laboratory hours a week for two semesters. The student must complete Petroleum and Geosystems Engineering 225MA and 225MB before a grade and degree credit are awarded. Prerequisite: For 225MA, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour; for 225MB, Petroleum and Geosystems Engineering 225MA and appointment for a full-time cooperative work tour.

### **PGE 125N. Cooperative Engineering.**

Covers the work period of petroleum engineering students in the Cooperative Engineering Program. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Petroleum and Geosystems Engineering 325L or 225M, application to become a member of the Cooperative Engineering Program, approval of the dean, and appointment for a full-time cooperative work tour.

### **PGE 326. Thermodynamics and Phase Behavior.**

Restricted to geosystems engineering and hydrogeology and petroleum engineering majors. Basics of phase behavior, classical thermodynamics in terms of material and energy balances, and applications to changes of state of petroleum fluids. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: The following with a grade of at least C-: Chemistry 302, Physics 303K, Physics 103M, and Mathematics 408D or 408M.

### **PGE 427. Properties of Petroleum Fluids.**

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. Principles of organic chemistry, phase behavior of multicomponent mixtures, properties of hydrocarbon gases and liquids and oil field waters, overview of laboratory phase behavior measurements, and material balance calculations. Three lecture hours and three laboratory hours a week for one semester. Petroleum and Geosystems Engineering 312 and 427 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Chemistry 302 and Petroleum and Geosystems Engineering 326 with a grade of at least C- in each.

**PGE 430. Drilling and Well Completions.**

Elements of rock mechanics, drilling fluids, factors affecting rate of penetration, and well completions, including casing and tubing design. Three lecture hours and one and one-half laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Engineering Mechanics 319 with a grade of at least C-, credit with a grade of at least C- or registration for Petroleum and Geosystems Engineering 322K.

**PGE 333T. Engineering Communication.**

Advanced technical communication skills, with emphasis on writing strategies for technical documents, oral presentations, and visual aids. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 333T, Biomedical Engineering 333T, Communication 333T, Civil Engineering 333T, Chemical Engineering 333T, Electrical Engineering 333T, Engineering Studies 333T, Mechanical Engineering 333T, Petroleum and Geosystems Engineering 333T. Prerequisite: Rhetoric and Writing 306 with a grade of at least C-.

**PGE 334. Reservoir Geomechanics.**

Restricted to geosystems engineering and hydrogeology and petroleum engineering majors. Basic stress and strain analysis; pore pressure and in situ stress estimation and measurement; deformation mechanisms in rock; rock fracture description and analysis; wellbore stresses and failure; wellbore stability analysis; fault stability analysis; depletion-induced reservoir deformation; and hydraulic fracturing. Emphasis on applications to petroleum engineering. Two lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Engineering Mechanics 319 and Petroleum and Geosystems Engineering 301 and 424 with a grade of at least C- in each.

**PGE 337. Introduction to Geostatistics.**

Restricted to geosystems engineering and hydrogeology and petroleum engineering majors. Basic probability and statistics, study of correlated variables, statistical interpolation and simulation, and global optimization. Emphasis is on the ways the results of these procedures are related to geology and fluid flow. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Mathematics 408D or 408M, and Petroleum and Geosystems Engineering 310 with a grade of at least C- in each.

**PGE 358. Principles of Formation Evaluation.**

Restricted to geosystems engineering and hydrogeology and petroleum engineering majors. Integrated petrophysical interpretation of well logs, core laboratory measurements, and geological data for static, dynamic, and geophysical appraisal of subsurface rock formations. Three lecture hours per week for one semester. Petroleum and Geosystems Engineering 358 and 368 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit for Geological Sciences 416M or 316P, Physics 303L and 103N and Petroleum and Geosystems Engineering 424 with a grade of at least C-.

**PGE 361. Advanced Reservoir Engineering.**

Secondary recovery methods; computer simulation of reservoir performance; applications to field problems. Three lecture hours a week for one semester. Prerequisite: Petroleum and Geosystems Engineering 326 and 323K.

**PGE 362. Production Technology and Design.**

Restricted to petroleum engineering majors. Analysis, specification, and characteristics of production systems; inflow performance; wellbore and tubing hydraulics; and artificial lift. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Petroleum and Geosystems Engineering 430 with a grade of at least C-.

**PGE 363. Petroleum Leasing Regulations and Practices.**

Restricted to petroleum engineering majors. Domestic and worldwide regulations associated with petroleum leasing, including offshore areas, and environmental provisions concerning petroleum exploration and production. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C- or registration for Petroleum and Geosystems Engineering 365.

**PGE 364. Natural Gas Engineering.**

Production, transportation, and storage of gas; metering and gauging; performance of wells; estimation of gas reserves; prevention of waste and utilization of natural gas. Three lecture hours a week for one semester. Prerequisite: For petroleum engineering majors, Petroleum and Geosystems Engineering 326, 323K, and 362; for others, upper-division standing and consent of instructor.

**PGE 365. Resource Economics and Valuation.**

Restricted to petroleum engineering majors. Derivation of profitability criteria for earth resource investments, project analysis in terms of the interrelation of technical and economic factors, investment analysis in the presence of uncertainty, and project planning. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Petroleum and Geosystems Engineering 310 and 323K with a grade of at least C-.

**PGE 368. Fundamentals of Well Logging.**

Restricted to geosystems engineering and hydrogeology and petroleum engineering majors. Principles, applications, and interpretation of well logs as used in exploration and evaluation of subsurface formations. Three lecture hours a week for one semester. Petroleum and Geosystems Engineering 358 and 368 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit for Geological Sciences 416M or 316P, Physics 303L, and 103N and Petroleum and Geosystems Engineering 424 with a grade of at least C-.

**PGE 371. Energy Finance.**

Restricted to petroleum engineering majors. Fundamentals of finance as applied to the petroleum industry, including petroleum project financing techniques, investigating sources of capital, and methods used to evaluate an oil company's financial performance. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least C- or registration for Petroleum and Geosystems Engineering 365.

**PGE 372. Advanced Drilling and Well Completions.**

Applications of geomechanics in wellbore and near-wellbore problems encountered in drilling and completing high-pressure, high-temperature wells on land and water locations. Three lecture hours a week for one semester. Petroleum and Geosystems Engineering 372 and 379 (Topic: Advanced Drilling and Well Completions) may not both be counted. Prerequisite: Petroleum and Geosystems Engineering 430 and 334 with a grade of at least C-.

**PGE 373L. Geosystems Engineering Design and Analysis.**

Restricted to geosystems engineering and hydrogeology and petroleum engineering majors. Team-oriented design projects involving the application of geologic and engineering methods to the solution of subsurface problems, using field case histories. Projects are selected for each student based on his or her petroleum engineering technical area option. The equivalent of three lecture hours a week for one semester, with additional hours to be arranged. Offered on the letter-grade basis only. Prerequisite: The following with a grade of at least C- in each: Petroleum and Geosystems Engineering 323K, 323L, 362, and 358 or 368.

### **PGE 176, 276, 376. Special Problems in Petroleum and Geosystems Engineering.**

Independent investigation of an advanced subject in petroleum and geosystems engineering, for superior students only. Conference course. Prerequisite: Admission to an appropriate major sequence in engineering and written consent of instructor.

### **PGE 377. Deepwater Operations.**

Restricted to students admitted to major sequence in geosystems engineering and hydrogeology or petroleum engineering. Overview of various technical, logistical, and managerial elements that are functionally integrated in deepwater operations, with emphasis on applications in the Gulf of Mexico. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Petroleum and Geosystems Engineering 323K, 430, 334, and 362.

### **PGE 378. Applied Reservoir Characterization.**

Restricted to petroleum engineering and geosystems engineering and hydrogeology majors. Reservoir modeling using software tools for statistical analysis of reservoir data; variogram analysis and modeling; spatial interpolation (kriging); tools for data integration in kriging; stochastic simulation of rock-types (lithology), pay thickness/porosity, and permeability; inputting geological models into flow simulation; uncertainty assessment. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Geological Sciences 416M or 316P with at least a C-, and Petroleum and Geosystems Engineering 310, 337, and 323M with a grade of at least C-.

### **PGE 379. Studies in Petroleum and Geosystems Engineering.**

Special courses or seminars on recent developments in engineering. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Admission to an appropriate major sequence in engineering or consent of instructor; additional prerequisites vary with the topic.

**Topic 7: Small Scale Fluid Flow.** Examine the physics of fluid flow at the microscale in the context of pore-scale transport in subsurface systems and microfluidic models of subsurface systems. Review geological sediment deposition and how that motivates the appropriate microscopic length-scales. Explore equations of mass and momentum conservation for incompressible fluids. Develop simplifications towards the small-scale slow-flow limit to describe transport through pores and cover techniques in microfluidics and micromodels development. Petroleum and Geosystems Engineering 379 (Topic: Small Scale Fluid Flow) and 379 (Topic 7) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing.

**Topic 8: Oil, Gas, and Mineral Law.** Explore basic oil and gas law concepts, the forms generally used in oil and gas transactions and the type of regulation commonly applied to the oil and gas industry with a focus on Texas oil and gas law and regulation. Petroleum and Geosystems Engineering 379 (Topic: Oil, Gas, and Mineral Law) and 379 (Topic 8) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing.

**Topic 9: Subsurface Machine Learning.** Explore fundamental probability and statistics; inference and prediction; and model training, testing, tuning, and validation. Examine workflows for integrating many features; workflows for anomaly detection, spatiotemporal prediction, and uncertainty integration. Communicate results within a project team to impact subsurface decision making. Three lecture hours a week for one semester. Petroleum and Geosystems Engineering 379 (Topic: Subsurface Machine Learning) and 379 (Topic 9) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Mathematics 408D or 408M with a grade of at least C-.

**Topic 10: Artificial Lift.** Restricted to geosystems engineering and hydrogeology and petroleum engineering majors. Life of a well, well testing, gas and plunger lift, progressive cavity pumps, electric submersible pumps, and beam lift. Petroleum and Geosystems Engineering 379 (Topic: Artificial Lift) and 379 (Topic 10) may not both be counted. May be used to fulfill the technical elective requirement for the Bachelor of Science in Petroleum Engineering degree. Offered on the letter-grade basis only. Additional prerequisite: Petroleum and Geosystems Engineering 430 and 362 with a grade of at least C-.

**Topic 11: Facilities Management.** Restricted to geosystems engineering and hydrogeology or petroleum engineering majors. Petroleum fluid characteristics, process control, separators, metering, produced water, tanks, gas processing, gas compression, and liquid pumps. Petroleum and Geosystems Engineering 379 (Topic: Oil and Gas Production Facilities Design) and 379 (Topic 11) may not both be counted. May be used to fulfill the technical elective requirement for the Bachelor of Science in Petroleum Engineering degree. Offered on the letter-grade basis only. Additional prerequisite: Petroleum and Geosystems Engineering 362 with a grade of at least C-.

**Topic 12: Blowout Prevention and Control.** Background in hydrostatics, hydrodynamics, hydraulics, geomechanics, mechanical systems, and procedures as they apply to well control. Petroleum and Geosystems Engineering 379 (Topic: Blowout Prevention and Control) and 379 (Topic 12) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing and Petroleum and Geosystems Engineering 430 with at least a C-.

**Topic 13: Fundamentals of Enhanced Oil Recovery Techniques.** Overview of the fundamental displacement concepts of chemical, miscible, and thermal enhanced oil recovery methods. Also includes the concept of phase behavior in each process. Petroleum and Geosystems Engineering 379 (Topic: Fundamentals of Enhanced Oil Recovery Techniques) and 379 (Topic 13) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing and Petroleum and Geosystems Engineering 323L (or 323) with a grade of at least C-.

**Topic 14: High Performance Computational Engineering.** An introduction to the UNIX environment in a scientific computing context, including instruction in several import UNIX applications to improve user productivity. Examine the differences between various parallelization styles of computing and develop a basic working understanding of how to utilize the application programming interfaces (APIs) in scientific applications. Three lecture hours a week for one semester. Petroleum and Geosystems Engineering 379 (Topic: High Performance Comp Eng) and 379 (Topic 14) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing; Mathematics 408D or 408M and Petroleum and Geosystems Engineering 310 with a grade of at least C-.

**Topic 15: E4: The Earth, Natural Resources, and Sustainability.** Application of logic, common sense, the fundamental laws of mass and energy conservation, as well as more advanced thermodynamics to evaluate overall efficiencies of major human energy supply schemes such as fossil, nuclear, solar, wind, and biomass to define and quantify the irreversible linear processes and sustainable/unsustainable cycles. Petroleum and Geosystems Engineering 379 (Topic: E4: Earth, Environment, Energy) and 379 (Topic 15) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing; and credit with a grade of at least C- in each of the following: Chemistry 302, Mathematics 408C or 308K, Physics 303K, Petroleum and Geosystems Engineering 310, and 326.

**Topic 16: Hydraulic Fracture Design and Evaluation.** Overview of Formation evaluation; elasticity; in situ stress calculation and measurement; fracture initiation; basic equations of fracture mechanics; 2-and-3-dimensional fracture models; fluid rheology; proppant settling; pipe friction/surface pressure calculations;

treatment pressure analysis; fracture diagnostics; fracturing from horizontal and deviated wells; and treatment design and completions. Petroleum and Geosystems Engineering 379 (Topic: Hydraulic Fracture Design and Evaluation) and 379 (Topic 16) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing and Petroleum and Geosystems Engineering 334 (or 432) with a grade of at least C.

**Topic 17: Applied Subsurface Geology.** Principles and techniques for subsurface geologic interpretation, including subsurface mapping; construction of cross-sections; core description and analysis; stratigraphic interpretation of well logs; and stratigraphic and facies interpretation of seismic data. Petroleum and Geosystems Engineering 379 (Topic: Applied Subsurface Geology) and 379 (Topic 17) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Geology 416M or 316P with a grade of at least C-.

**Topic 18: Wellbore Mechanics and Managed Pressure Drilling.** Operational topics will draw from drilling fluids engineering; drilling system engineering; rig and wellbore hydraulics; ROP parameters and drilling optimizations; wellbore stability; fracture and pore pressure gradients; mud weight windows; in-situ and near-wellbore stress states; lost circulation; pressure control; pipe sticking; and other situations common to drilling operations. Petroleum and Geosystems Engineering 379 (Topic: Wellbore Mechanics and Managed Pressure Drilling) and 379 (Topic 18) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing and Petroleum and Geosystems Engineering 430.

**Topic 19: Advanced Well Construction.** Focus on advanced topics in drilling fluids, cementing, hydraulics, managed pressure and dual gradient drilling, advanced well control and casing design, complex well design (DW, HPHT, Arctic), and well completions. Petroleum and Geosystems Engineering 379 (Topic: Advanced Well Construction) and 379 (Topic 19) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Upper-division standing and Chemistry 302, Mathematics 408D, Petroleum and Geosystems Engineering 326, 430, Physics 303K, 103M.

**Topic 20: Drilling Engineering and Operations Management.** Restricted to non-petroleum engineering majors. A broad overview of the key elements of today's drilling engineering discipline, including an understanding of rigs and rig equipment, familiarity with drilling fluids, cementing, directional drilling techniques etc., up to understanding of casing design, well control and the application of new & emerging drilling and completion technologies. Petroleum and Geosystems Engineering 379 (Topic: Drilling Engineering and Operations Management) and 379 (Topic: 20) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Mathematics 408D, Physics 303K, 103N, and Petroleum and Geosystems Engineering 326 with a grade of at least C-.

**Topic 21: Wellbore to Reservoir Geomechanics.** Applications from offshore to unconventional. Applications of fluid flow/geomechanics concepts at wellbore, near-wellbore and reservoir scales; vertical, inclined, and horizontal wells; drilling, completion, production and reservoir applications; sandstones, shales, carbonates Petroleum and Geosystems Engineering 379 (Topic: Wellbore Reservoir Geomech) and 379 (Topic 21) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: PGE 323K, PGE 430 and PGE 362 with a grade of at least C-; registration or grade of at least C- in PGE 334.

### **PGE 679H. Undergraduate Honors Thesis.**

Research performed during two consecutive semesters under the supervision of an engineering faculty member; topics are selected jointly by the student and the faculty member with approval by the director of the Engineering Honors Program. The student makes an oral presentation and writes a thesis. Individual instruction for two

semesters. Students pursuing both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering may use this course to fulfill the thesis requirement for the Bachelor of Arts, Plan II. Prerequisite: For 679HA, enrollment in the Engineering Honors Program; for 679HB, Petroleum and Geosystems Engineering 679HA and enrollment in the Engineering Honors Program.

## **Graduate Courses**

### **PGE 380, 680. Advanced Petroleum Laboratory for Master's Degree Candidates.**

For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and twelve semester hours of upper-division coursework in petroleum and geosystems engineering.

### **PGE 381. Drilling Engineering.**

Not open to students who have a degree in petroleum engineering. Basic drilling terminology and advanced drilling engineering topics. Three lecture hours a week for one semester. Required for students pursuing the doctoral degree in petroleum engineering. Prerequisite: Graduate standing in petroleum engineering.

### **PGE 381K. Engineering Analysis.**

Application of classical methods of mathematical analysis to problems frequently encountered in engineering applications. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PGE 381L. Advanced Petrophysics.**

Measurement, interpretation, and analysis of petrophysical properties of petroleum reservoir rocks. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PGE 381M. Transport Phenomena.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing in computational and applied mathematics, engineering, or geological sciences.

### **PGE 382. Basic Geological Concepts for Engineers.**

Basic geological principles for students with little or no geological background. Three lecture hours a week for one semester. Prerequisite: Graduate standing in petroleum or civil engineering.

### **PGE 382K. Theory and Application of Reservoir Transients.**

Mathematical development and application of multiple pressure transients in well and reservoir systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PGE 382L. Numerical Methods in Petroleum and Geosystems Engineering.**

The use of numerical methods and computers in the solution of petroleum and geosystems engineering problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PGE 383. Special Topics in Petroleum and Geosystems Engineering.**

Recent literature on petroleum production practice and petroleum and geosystems engineering problems. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in computational and applied mathematics, engineering, or geological sciences. Students seeking to enroll in any seminar must present technical prerequisites satisfactory to the instructor.

### **Topic 2: Advanced Drilling Fluids.**

**Topic 5: Thermal Recovery.**

**Topic 10: Numerical Solution of Time-Dependent Problems.**

**Topic 12: Near Wellbore Problems.**

**Topic 16: Topics in Computational Methods.**

**Topic 17: Naturally Fractured Reservoirs.**

**Topic 20: Geostatistics.**

**Topic 24: Natural Gas Engineering.**

**Topic 27: Rock Mechanics: Drilling, Completing, and Producing Applications.**

**Topic 28: Macroeconomics of Petroleum.**

**Topic 30: Fundamentals of Subsurface Environmental Engineering.**

**Topic 32: Hydraulic Fracture Design and Evaluation.**

**Topic 33: Advanced Drilling and Well Completion.**

**Topic 35: Advanced Production Engineering.**

**Topic 36: Advanced Numerical Methods.**

**Topic 38: Chromatographic Transport and Geochemical Modeling.**

**Topic 39: Design and Analysis of Pumping Systems.**

**Topic 41: Energy Finance.**

**Topic 46: International Petroleum Concessions and Agreements.**

**Topic 50: Reservoir Applications of Foam.**

**Topic 51: Special Problems in Well-Logging.**

**Topic 55: Pore-Level Petrophysics.** Geological and mathematical investigation of pore-scale basis for transport phenomena and petrophysical properties of sedimentary rocks. Additional prerequisite: Petroleum and Geosystems Engineering 381L or consent of instructor.

**Topic 56: Stochastic Methods for Reservoir Modeling.** Spatial interpolation and stochastic simulation techniques for reservoir characterization.

**Topic 57: Deepwater Operations.** Overview of various technical, logistical, and managerial elements that are functionally integrated in deepwater operations, with emphasis on applications in the Gulf of Mexico.

**Topic 58: Applied Reservoir Characterization.** Reservoir modeling using software tools for statistical analysis of reservoir data; variogram analysis and modeling; spatial interpolation (kriging); tools for data integration in kriging; stochastic simulation of rock types (lithology), pay thickness/porosity, and permeability; inputting geological models into flow simulation; uncertainty assessment.

**Topic 59: Oil and Gas Production Facilities Design.** Applied theory relating to field processing of hydrocarbons and water, including hydrocarbon and gas separation, gas sweetening and dehydration, gas compression, fluid metering, process control, corrosion, and safety systems. Additional prerequisite: Petroleum and Geosystems Engineering 381M and 384, or consent of instructor.

**Topic 60: Energy and Earth Resource Economics.** Same as Energy and Earth Resources 396 (Topic 1: Energy and Earth Resource Economics). Theoretical and applied topics in natural resource economics, including project analysis, production theory, industrial organization, markets and regulation, and environmental economics.

**Topic 61: Project Management.** Overview of project management theory and practice in the natural resource sector, with a focus on exploration and production of energy resources.

**Topic 62: Energy and the Environment.** A survey course covering current and potential energy sources, what the energy supply mix will be in the future, and how this might impact the environment.

**Topic 63: Subsurface Machine Learning.** Explore the theory and practice of data analytics and machine learning for subsurface resource modeling. Examine fundamental probability and statistics; data preparation and feature engineering, inference (clustering, multidimensional scaling) and prediction (regression, naive Bayes, decision trees, random forest, support vector machines and artificial neural nets); and model selection, training, testing, tuning, and validation. Three lecture hours a week for one semester. Petroleum and Geosystems Engineering 383 (Topic: Subsurface Machine Learning) and 383 (Topic 63) may not both be counted.

**Topic 64: High Performance Computing for Engineers.** Explore an introduction to the UNIX environment in a high-performance scientific computing context. Examine several important UNIX applications that can help users be more productive. Discuss the basic differences between various parallelization styles of computing, as well as how to utilize the application programming interfaces (APIs) in scientific applications. Three lecture hours a week for one semester. Petroleum and Geosystems Engineering 383 (Topic: High Performance Comp Engr) and 383 (Topic 64) may not both be counted.

**Topic 65: Formation Evaluation of Unconventional Reservoirs.** Explore advanced formation evaluation of unconventional reservoirs through experimental and computational/analytical methods and workflows. Discuss the rock physics of unconventional reservoirs. Examine multi-physics and multi-scale formation data (well logs, core data, and geological information) to construct hydrocarbon reservoir models amenable to production forecast and improved development of available reserves in unconventional reservoirs. Petroleum and Geosystems Engineering 383 (Topic: Formation Eval Unconvtl Rsrvrs) and 383 (Topic 65) may not both be counted.

**Topic 66: Data Analytics and Geostatistics.** Explore subsurface data analytics and geostatistics, from fundamental probability and statistics, univariate and multivariate analysis, representative sampling, spatial characterization and modeling, and uncertainty management to decision-making in the presence of uncertainty.

### **PGE 384. Advanced Thermodynamics and Phase Behavior.**

Thermodynamic study of pressure/volume/temperature/composition relationships in oil and gas mixtures. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in petroleum engineering and twelve semester hours of upper-division coursework in petroleum and geosystems engineering.

### **PGE 385K. Advanced Multi-Well Formation Evaluation.**

Advanced concepts in formation evaluation for the estimation of static and dynamic petrophysical properties of rocks from well logs, core data, and geological information. Multi-well data sets, seismic amplitude data, and regional geological studies are used to construct hydrocarbon reservoir models amenable to production forecast and improved development of available reserves. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and a course in fundamentals of well logging.

### **PGE 385M. Advanced Well-Logging and Correlation.**

Advanced well-logging for the geologist and engineer, involving working problems with suites of well logs to cover advanced mapping and logging techniques. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, Geological Sciences 383, and three semester hours of coursework in fundamentals of well logging.

### **PGE 386K. Advanced Fluid Flow in Porous Media.**

The hydrodynamic equations governing the steady state flow of homogeneous fluids in porous media and their application to petroleum and geosystems engineering problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PGE 387. Secondary Recovery of Petroleum.**

Recovery by gas injection and water flooding. Three lecture hours a week for one semester. Prerequisite: Graduate standing in petroleum engineering and twelve semester hours of upper-division coursework in petroleum and geosystems engineering.

### **PGE 387K. Fundamentals of Enhanced Oil Recovery I.**

Recent innovations in the recovery of petroleum by injecting fluids miscible with the oil or by application of heat to the reservoir. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PGE 387L. Fundamentals of Enhanced Oil Recovery II.**

Basic concepts and principles of chemical flooding methods of enhanced oil recovery, which include polymer flooding, surfactant-polymer flooding (SP), alkaline-surfactant-polymer flooding (ASP), chemical imbibitions by wettability alteration methods and surfactant-gas (SG) methods, and also some comparisons with other EOR methods such as miscible gas flooding when appropriate and as time permits. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PGE 388. Advanced Reservoir Engineering.**

Basic concepts of reservoir engineering, with applications to the production of hydrocarbons from both gas and oil reservoirs. Examines the governing equations for flow in permeable media, as well as concepts such as streamline flow; pseudo-steady-state flow, fractional flow, and both immiscible and miscible flow. Uses black oil and compositional reservoir simulators. Three lecture hours a week for one semester. Prerequisite: Graduate standing in computational and applied mathematics, engineering, or geological sciences. Students must present technical prerequisites satisfactory to the instructor.

### **PGE 389. Economic Analysis in the Petroleum Industry.**

Engineering justification for capital outlay in the petroleum industry. Three lecture hours a week for one semester. Prerequisite: Graduate standing in engineering or geological sciences.

### **PGE 290, 390, 690, 990. Advanced Laboratory for Doctoral Candidates.**

For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in petroleum engineering.

### **PGE 392K. Numerical Simulation of Reservoirs.**

Development and application of reservoir simulator models to primary and secondary recovery processes in reservoir engineering. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PGE 193, 293, 393. Research Seminar.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **PGE 397M. Graduate Research Internship.**

For students holding Master of Science degrees from other institutions who wish to pursue Doctor of Philosophy degrees at the University of Texas at Austin. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser and the dean of the Cockrell School of Engineering.

### **PGE 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in petroleum engineering and consent of the graduate adviser; for 698B, Petroleum and Geosystems Engineering 698A.

### **PGE 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in petroleum engineering and consent of the graduate adviser.

### **PGE 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Pharmacy Graduate Studies Courses**

## **Pharmacy Graduate Studies: PGS**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **PGS 380F. Biomedical Pharmacology I.**

Basic neurotransmission and pharmacological principles. Physiological effects of drugs used in disease states including neurological, cardiovascular, psychiatric disorders, and pain relief. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and experience or prior coursework in physiology, biochemistry, or organic chemistry.

#### **PGS 380G. Biomedical Pharmacology II.**

Explore fundamental concepts of pharmacology, pharmacologic agents and relevant physiology and disease pathophysiology in the areas of renal; hematopoiesis; immune/asthma/allergy; endocrine; anti-virals and anti-retrovirals; cancer therapeutics and immunotherapy. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Pharmacy Graduate Studies 380F, or consent of instructor.

#### **PGS 180J, 280J, 380J. Advanced Pharmaceutics: Laboratory Research.**

Three, six, or nine laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 180M, 280M, 380M. Advanced Pharmaceutics.**

For each semester hour of credit earned, one lecture hour a week for one semester. Pharmacy 180M, 280M, 380M and Pharmacy Graduate Studies 180M, 280M, 380M may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

#### **PGS 380S. Basic Principles in Experimental Design and Statistics.**

Basic principles in experimental design and statistics with a focus on real world situations that may be encountered while performing scientific research. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 380T. Texas Venture Labs Startup Practicum.**

Places students in teams and connects them with Austin-area startup companies. The teams then execute business consulting projects for the startup companies. Explores how these projects help companies better understand their market, competition, business model, etc, in

order to accelerate their path to market and funding decisions. Three lecture hours a week for one semester. Only one of the following may be counted: Aerospace Engineering 396 (Topic: Texas Venture Labs Practicum), Electrical Engineering 390V (Topic: Texas Venture Labs Practicum), Engineering Mechanics 397 (Topic: Texas Venture Labs Practicum), Management 385 (Topic: Texas Venture Labs Practicum), Mechanical Engineering 397 (Topic: Texas Venture Labs Practicum), Pharmacy Graduate Studies 380M (Topic: Texas Venture Labs Startup Practicum). Prerequisite: Graduate standing.

#### **PGS 381F. Product Development.**

Application of physical-chemical principles to the formulation and development of stable and bioavailable drug delivery systems. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in the College of Pharmacy, or consent of instructor.

#### **PGS 381G. Advanced Manufacturing Pharmacy.**

Physical-mechanical properties of compacts, drugs, and polymers. Properties of biodegradable and nonbiodegradable polymers in pharmaceutical formulations. Process validation and pilot plant scale-up. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in the College of Pharmacy, or consent of instructor.

#### **PGS 381H. Advanced Pharmaceutical Processing.**

Didactic and laboratory exposure to pharmaceutical processes used in the design, development, and optimization of drug delivery systems. Emphasis on equipment and machinery used in pharmaceutical manufacturing of these dosage forms, with discussion of other issues, such as technology transfer and scale-up. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in the College of Pharmacy, or consent of instructor.

#### **PGS 181J, 281J, 381J. Advanced Pharmacy Administration: Laboratory Research.**

Three, six, or nine laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 181M, 281M, 381M. Advanced Pharmacy Administration.**

For each semester hour of credit earned, one lecture hour a week for one semester. Pharmacy 181M, 281M, 381M and Pharmacy Graduate Studies 181M, 281M, 381M may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

#### **PGS 381N. Health Care Systems.**

Overview of the health care system in the United States and examination of the classic and contemporary literature on managed health care systems, with emphasis on pharmacy-related issues. Studies the advantages, disadvantages, and effects of these systems on patients, providers, and payers. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

#### **PGS 381V. Communication Skills for Translational Scientists.**

Explores oral and written communication skills for scientists conducting translational research at the interface of basic and clinical science. Introduction to the skills necessary to successfully convey medication and healthcare-related data in a professional manner. Involves discussions addressing subjects such as medical writing, grant writing, abstract development, and poster design. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 381W. Molecular and Pharmacological Basis of Therapeutics.**

Broad issues of molecular pharmacotherapeutics, including potential and challenge for optimization of drug therapy, implications for drug development and regulation, ethical and social aspects of pharmacogenomics, signal transduction, use of knock-out mice, and informed consent process in pharmacogenomic research. Three lecture hours a week for one semester. Pharmacy 381W and Pharmacy Graduate Studies 381W may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 382F. Analytical Methods in Biologics Formulation.**

Explore theory and practice of techniques used to characterize and analyze pre-formulated and formulated biologics, as well as basic biology specific to formulation sciences. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **PGS 282J. Advanced Pharmacotherapy Seminar I.**

Discussion of advanced pharmacotherapeutics topics, case presentations, and journal clubs at the advanced practitioner level. Two lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 282K. Advanced Pharmacotherapy Seminar II.**

Discussion of advanced pharmacotherapeutics topics, case presentations, and journal clubs at the advanced practitioner level. Two lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 382R. Recent Advances in Pharmaceutics.**

Presentation of topics of current research interest in physical pharmacy, biopharmaceutics, and pharmacokinetics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **PGS 282S, 382S. Advanced Biopharmaceutics.**

Provides students with a more comprehensive background in biopharmaceutics and the drug approval process. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 382S, Pharmacy Graduate Studies 280M (Topic: Advanced Biopharmaceutics), 282S, 382S. Prerequisite: Graduate standing or consent of instructor.

#### **PGS 382T. Basic Concepts of Tumor Biology.**

A survey of cancer biology that includes tumor pathology, initiation, progression and metastasis, genetic instability, DNA damage and repair, cell cycle control, oncogenes, tumor suppressor genes, and the immune response. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **PGS 382U. Drug Discovery and Development.**

Examine the fundamental principles of drug discovery and development including patenting, clinical trials, and marketing. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 382V. Pharmaceutical Biotechnology.**

Application of protein, oligonucleotide, and related molecules as therapeutic agents: stability, formulation, kinetics, dynamics. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and the following coursework: Pharmacy 342C, 142P, 252C, 171P, and 371S, or the equivalent; or consent of instructor.

**PGS 182W. Ethics in Science and Clinical Practice.**

Ethical considerations in the conduct of clinical research, including institutional review boards, adherence to protocol, Food and Drug Administration and related site reviews, protection of human subjects through informed consent and confidentiality, and the use of genetic banks in research. One lecture hour a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**PGS 383D. Neuropharmacology I.**

An advanced survey of neurotransmitters and systems in the brain. Covers experimental approaches and pharmacological analysis at behavioral, neurochemical, and neuroanatomical levels to determine mechanisms of actions of drugs that act on the brain. Three lecture hours a week for one semester. Neuroscience 383D and Pharmacy Graduate Studies 383D may not both be counted. Prerequisite: Graduate standing.

**PGS 383E. Neuropharmacology II.**

Same as Neuroscience 383E. Explore neuropharmacological concepts related to brain development, organization and anatomy; neuroendocrinology, neuroimmunology and neuroinflammation; gut-brain axis; neurobiology of addiction; and others. Three lecture hours a week for one semester. Only one of the following may be counted: Neuroscience 383E, 385L (Topic: Neuropharmacology II), Pharmacy Graduate Studies 383E. Prerequisite: Graduate standing and consent of instructor.

**PGS 383M. Health Innovation Entrepreneurship.**

Explore a highly interactive and interdisciplinary approach for developing health innovation, including drug product, devices, and digital health solutions. Examine foundational entrepreneurial and innovation concepts for identifying and developing ideas, performing market validation, conducting customer discovery, assessing competition, and identifying skills for effectively working in teams. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy Graduate Studies 380M (Topic: Entrepreneurship/Hlth Innov), 383M, Pharmacy PharmD 382R (Topic: Entrepreneurship/Hlth Innov), 383M. Offered on the letter-grade basis only. Prerequisite: Graduate standing in pharmacy, nursing, or medicine and consent of instructor.

**PGS 383N. Solution Theory and Disperse Systems.**

The theory and technology of solutions and heterogeneous systems; applications of scientific principles to the design of pharmaceutical products; a study of factors influencing physical chemical characteristics, stability, and biopharmaceutical activity of solutions and coarse dispersions; review of recent literature. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**PGS 383P. Advanced Pharmacokinetics.**

Study of the kinetics of absorption, distribution, metabolism, and excretion of drugs in the intact organism. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Pharmacy 252C or an equivalent pharmacokinetics course.

**PGS 383Q. Statistics in Translational Science.**

Pharmaceutical statistical analysis with a focus on choosing the appropriate statistical test to address both basic science and clinical research hypotheses. Students use the JMP software package to execute statistical analysis on their own pharmaceutical research projects. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in the College of Pharmacy or Translational Science Graduate Program; and an introductory statistics course or consent of instructor.

**PGS 383R. Rate Processes in Pharmaceutical Systems.**

A study of decomposition and stabilization of drug molecules in solutions and in solid dosage forms; principles of kinetics and diffusion as applied to pharmaceutical systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**PGS 383V. Research Design and Methods.**

Explore a practical approach to classical experimental design, hypothesis generation, development of translational research methods that incorporate principles of basic and clinical science. Examine writing with a focus on grantsmanship and protocol development. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**PGS 383W. Biopharmaceutical Analysis.**

Analytical methods for the isolation and identification of drugs and their metabolites, specific genes, and proteins in biological fluids. Three lecture hours a week for one semester. Prerequisite: Graduate standing in pharmacy, completion of a PharmD degree, and concurrent enrollment in Pharmacy Graduate Studies 184U.

**PGS 384G. Pharmacological Mechanisms of Addiction.**

Overview of neurobiological and pharmacological mechanisms of addiction, with in-depth discussion of recent literature in the field of addiction and animal models of addiction. Three hours of lecture per week for one semester. Only one of the following may be counted: Neuroscience 385L (Topic: Pharmacolgl Mechs of Addictn), Pharmacy Graduate Studies 384G, 388K (Topic: Pharmacolgl Mechs of Addictn). Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**PGS 384K. Fundamentals of Toxicology.**

An organ system approach to advanced topics in general toxicology. Three lecture hours a week for one semester. Required course for pharmacology and toxicology graduate students specializing in toxicology. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and some background in pharmacology or consent of instructor.

**PGS 384L. Biochemical and Molecular Toxicology.**

Discussion of mechanisms of selected drugs and toxicants. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and some background in pharmacology or consent of instructor.

**PGS 384N. Health Behavior Theory and Medication Use Process.**

In-depth analysis of the social and behavioral issues that affect medication use, using the content, theories, and methodologies associated with patient compliance research. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**PGS 384S. Introduction to Epidemiology.**

Principles of epidemiology; descriptive analytic, and clinical epidemiology; epidemiologic perspective for health care management; epidemiology and the public policy process; pharmacoepidemiology. Three lecture hours a week for one semester. Prerequisite: Graduate standing; with consent of instructor, may be taken by students in the professional pharmacy curriculum.

**PGS 384T. Advanced Epidemiology.**

Review of major research methods and current issues within drug epidemiology. Emphasis on application of methods by reviewing historical and contemporary literature/examples. Areas presented include: how to read, interpret, design, conduct, review, critique and

evaluate pharmacoepidemiology studies. Three lecture hours a week for one semester. Pharmacy 381M (Topic: Advanced Epidemiology) and Pharmacy Graduate Studies 384T may not both be counted. Prerequisite: Graduate standing, and Pharmacy Graduate Studies 384S or consent of instructor.

#### **PGS 184U. Biopharmaceutical Analysis Laboratory.**

Analytical methods for the isolation and identification of drugs and their metabolites, specific genes, and proteins in biological fluids. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Graduate standing in pharmacy, registration for Pharmacy Graduate Studies 383W, and completion of a PharmD degree.

#### **PGS 185D. Responsible Conduct of Science.**

Ethical considerations in the conduct of science, including issues of animal welfare and/or human subjects research, data analysis, fraud, publications, misconduct, intellectual property, grants, peer review, and mentor responsibility. One lecture hour a week for one semester. Neuroscience 185D and Pharmacy Graduate Studies 185D may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and admission to the doctoral program in pharmacy, or consent of instructor.

#### **PGS 185G. Grant Writing for Pharmacology and Toxicology.**

Subjects include federal and nonfederal grants, specific aims, preliminary data, hypothesis testing, experimental design, peer review, responding to critiques, biosketch, and budgeting. One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in the pharmacology and toxicology program or consent of instructor.

#### **PGS 185J, 285J, 385J. Advanced Pharmacotherapy Laboratory Research.**

Three, six, or nine laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 385L. Clinical Pharmacokinetics.**

In-depth analysis of pharmacotherapeutic regimens, using complex mathematical models. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 385M. Advanced Pharmacokinetics and Pharmacodynamics.**

Continuation of Pharmacy Graduate Studies 385L. Advanced pharmacokinetic and pharmacodynamic concepts and their application. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Pharmacy Graduate Studies 385L and consent of instructor.

#### **PGS 185W, 285W, 385W. Advanced Topics in Pharmacotherapy.**

One, two, or three lecture hours a week for one semester. Pharmacy 185W and Pharmacy Graduate Studies 185W, 285W, 385W may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor; additional prerequisites vary with the topic.

#### **PGS 386C, 486C. Cellular and Systems Physiology I.**

Basic principles of human physiology and anatomy in relation to drug action. Includes cellular and subcellular physiology, membrane transport, electrophysiology, synaptic transmission, and autonomic, neurological, and cardiovascular physiology and anatomy. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in the Institute

for Cellular and Molecular Biology, the Institute for Neuroscience, pharmacy, or psychology; and consent of instructor.

#### **PGS 386D, 486D. Cellular and Systems Physiology II.**

Principles of cellular and systems physiology. Subjects include immunology, kidney function, respiration, acid-base balance, blood and hematopoiesis, general endocrinology, neuroendocrinology, and reproduction. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and Pharmacy Graduate Studies 386C, 486C or consent of instructor.

#### **PGS 186J, 286J, 386J. Advanced Medicinal Chemistry: Laboratory Research.**

Modern laboratory techniques used in medicinal and natural products chemistry. Three, six, or nine laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 386M. Pharmaceutical Industry and Marketing.**

Subjects include the structure, size, and regulation of the pharmaceutical industry, including good manufacturing practices; drug development, pricing, marketing, and channels of distribution; and issues that impact the drug development industry, including generic drug competition, patent life, active ingredient importation and finished drug product importation, drug counterfeiting and safety concerns, direct-to-consumer advertising, and the drug approval process. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **PGS 186N, 286N, 386N, 486N. Topics in Pharmacy.**

Current issues in translational science. For each semester hour of credit earned, one lecture hour a week for one semester. Pharmacy 186N, 286N, 386N, 486N and Pharmacy Graduate Studies 186N, 286N, 386N, 486N may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and admission to the Doctor of Philosophy in Translational Science degree program; additional prerequisites vary with the topic.

#### **PGS 387Q, 487Q. Communication Skills for Scientists.**

Designed to enhance written and oral communication skills through lectures and practice. Covers grant writing, journal paper writing, poster presentation writing, and delivery. For every hour of credit earned, one lecture hour a week for one semester. Pharmacy 487Q and Pharmacy Graduate Studies 387Q, 487Q may not both be counted. Offered on the letter-grade basis only. Graduate standing in pharmacy, neuroscience, or a biological science; additional prerequisite for international students: completion of the University's English Certification Program or consent of instructor.

#### **PGS 388C. Introductory Bioorganic Chemistry.**

Survey of enzyme-catalyzed reactions, with emphasis on mechanism, experimental design, and applications in natural products biosynthesis. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and undergraduate courses in organic chemistry and biochemistry or consent of instructor.

#### **PGS 188J, 288J, 388J. Advanced Pharmacology: Laboratory Research.**

Three, six, or nine laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**PGS 188K, 288K, 388K. Advanced Pharmacology.**

For each semester hour of credit earned, one lecture hour a week for one semester. Pharmacy 188K, 288K, 388K and Pharmacy Graduate Studies 188K, 288K, 388K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor; additional prerequisites vary with the topic.

**PGS 288M. Fundamentals of Fluorescence Microscopy.**

Same as Neuroscience 288M. Explores optics, image formation, functioning of epifluorescent and confocal microscopes, detector technology (cameras and photomultiplier tubes), immunofluorescence techniques, image analyses, and image presentation for publication. Study of the technology and science behind widely-used high-end microscope systems. One lecture hours and two lab hours a week for one semester Only one of the following may be counted: Neuroscience 285L (Topic: Fndmntls of Fluorscnc Micrscopy), 288M, Pharmacy Graduate Studies 288K (Topic: Fndmntls of Fluorscnc Micrscopy), 288M. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**PGS 389C. Pharmacy Association Management.**

An introduction to the principles involved in managing pharmacy associations. Nine hours of fieldwork a week for one semester. Pharmacy 329C and Pharmacy Graduate Studies 389C may not both be counted. Prerequisite: Graduate standing and consent of instructor.

**PGS 389J. Advanced Pharmacotherapeutics of Cardiovascular Disorders.**

Designed to provide the student with a sound knowledge and comprehension of contemporary pharmacotherapeutic regimens used in treating cardiovascular diseases. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**PGS 389M. Fundamentals of Health Innovations.**

Explore foundational innovation and entrepreneurship concepts related to the process of developing novel drug therapies, medical devices, diagnostics, and digital health products and services. Three lecture hours a week for one semester Only one of the following may be counted: Pharmacy Graduate Studies 380M (Topic: Fundamentals of Health Innovations), 389M, Pharmacy PharmD 382R (Topic: Fundamentals of Health Innovations), 389M. Offered on the letter-grade basis only. Prerequisite: Graduate standing in pharmacy, nursing, or medicine and consent of instructor.

**PGS 389P. Advanced Pharmacotherapeutics of Infectious Diseases.**

Designed to provide the student with a sound knowledge and comprehension of contemporary therapeutic principles used in treating infectious diseases. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

**PGS 189Q. Seminar in Alcohol Studies.**

Presentations and discussion of current research topics in alcohol studies. One lecture hour a week for one semester. Offered on the credit/ no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**PGS 190G, 290G, 390G. Advanced Pharmacotherapeutics of Human Diseases and Illnesses.**

A comprehensive analysis of disease processes and a determination of appropriate therapeutic interventions for the treatment of those diseases. For each semester hour of credit earned, one lecture hour a

week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor; additional prerequisites vary with the topic.

**PGS 190H. Advanced Pharmaceutics Research Conference.**

One lecture hour a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**PGS 390J. Data Analysis in Health Care.**

Statistical analysis of research data using the computer and various statistical software programs. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and an introductory course in statistics or consent of instructor.

**PGS 390K. Experimental Design and Research Methodology in Health Care.**

Principles and procedures of experimental, quasi-experimental, and non-experimental research designs; includes reliability, validity, data collection methods, qualitative study designs, and survey methodologies. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**PGS 190R, 290R, 390R. Special Problems in Pharmacotherapy.**

Individual supervision of research problems in the clinical pharmacy sciences, including pharmacokinetics, pharmacodynamics, efficacy, safety, and pharmaceutical care. Three, six, or nine laboratory hours a week for one semester. Pharmacy 190R, 290R, 390R and Pharmacy Graduate Studies 190R, 290R, 390R may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor; additional prerequisites vary with the topic.

**PGS 390U. Advanced Research Methods in Health Care.**

Advanced methodologies used in pharmacy administration research; designed to build upon the skills covered in Pharmacy 390K. Explores data management issues and statistical procedures, with emphasis on the application of research methodology concepts and principles. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Pharmacy Graduate Studies 390K.

**PGS 291E. Advanced Hematology and Oncology Seminar I.**

In-depth discussion of the contemporary pharmacotherapy and patient care relating to hematology, oncology, and bone marrow transplantation. Two lecture hours a week for one semester. Offered on the credit/ no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**PGS 291F. Advanced Hematology and Oncology Seminar II.**

In-depth discussion of the contemporary pharmacotherapy and patient care relating to hematology, oncology, and bone marrow transplantation. Two lecture hours a week for one semester. Offered on the credit/ no credit basis only. Prerequisite: Graduate standing and consent of instructor.

**PGS 191H. Advanced Health Outcomes and Pharmacy Practice Research Conference.**

One lecture hour a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**PGS 292E. Clinical Research Methods I.**

Defining a research question, general study design issues, cross-sectional and case-control studies, and diagnostic test evaluation. Two lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PGS 292F. Clinical Research Methods II.**

Prospective observational studies; randomized controlled trials, nonrandomized intervention studies; meta-analysis; and data synthesis, evaluation, and application. Two lecture hours a week for one semester. Pharmacy 292F and Pharmacy Graduate Studies 292F may not both be counted. Prerequisite: Graduate standing; and Pharmacy Graduate Studies 292E (or Pharmacy 292E) or consent of instructor.

### **PGS 192Q. Interdisciplinary Collaboration and Career Development.**

An overview of pharmacy and its primary disciplines of pharmaceuticals, medicinal chemistry, pharmacy administration and practice, pharmacotherapy, and pharmacology/toxicology. One lecture hour a week for one semester. Only one of the following may be counted: Pharmacy Graduate Studies 191Q, 192Q, 194Q. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **PGS 092T. Joint PhD Program with Partner Institutions.**

Translational science study at partner institutions. May not be taken concurrently with another course at the University of Texas at Austin. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and admission to the Doctor of Philosophy in Translational Science degree program.

### **PGS 393Q. Health-Related Quality of Life.**

Terms, concepts, procedures, methods, problems, and strengths associated with health-related quality of life (HRQOL) research. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PGS 393T. Pharmacoeconomics.**

Terms, concepts, procedures, methods, problems, and strengths associated with pharmacoeconomics. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 394F, Pharmacy Graduate Studies 393T, Pharmacy PharmD 393F, 394F. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### **PGS 193U, 293U, 393U, 693U, 993U. Pharmacotherapy Master's Mentorship.**

Experience in pharmacy practice, research, and/or administration. For each semester hour of credit earned, three hours of fieldwork a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### **PGS 194Q. Professional Development for Pharmaceutical Scientists.**

Explore professional development skills (e.g., creating an individual development plan, understanding and capitalizing on strengths, curriculum vitae and resume writing, best practices in networking) and career pathways available to graduate students receiving advanced degrees in the pharmaceutical sciences. One lecture hour a week for one semester. Only one of the following may be counted: Pharmacy Graduate Studies 191Q, 192Q, 194Q. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **PGS 195H. Advanced Pharmacotherapy Research Conference.**

One lecture hour a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **PGS 195S. Environmental and Molecular Mechanisms of Health and Disease.**

Present and discuss current research topics in environmental and molecular mechanisms of health and disease. One lecture hour a week

for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the instructor.

### **PGS 196H. Advanced Medicinal Chemistry Research Conference.**

One lecture hour a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **PGS 396M. Medicinal Chemistry: General Principles, Pharmacological Classification, and Mechanism of Action.**

Introduction to medicinal chemistry, covering drug classes according to their pharmacological classification, structural class, and mechanism of action. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy Graduate Studies 396M, Pharmacy PharmD 382R (Topic: Mdrn Trends in Drug Design), 389E. Prerequisite: Graduate standing; and undergraduate coursework in organic chemistry and biochemistry, or consent of instructor.

### **PGS 196S. Seminar in Pharmacy.**

One lecture hour a week for one semester. Pharmacy 196S and Pharmacy Graduate Studies 196S may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in pharmacy.

### **PGS 196T. Seminar in Toxicology.**

Presentations and discussion of current research topics in toxicology. One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, and admission to the Toxicology Training Program or consent of instructor.

### **PGS 097. Fundamentals for Teaching Assistants.**

Skills, behaviours, and strategies for effective college teaching, with emphasis on pharmacy-related courses. One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; Consent of the graduate adviser.

### **PGS 197H. Advanced Pharmacology Research Conference.**

One lecture hour a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **PGS 397M. Drug Design and Synthetic Strategy.**

A multiperspective approach to modern concepts and drug design and synthetic strategy. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and undergraduate courses in organic chemistry and biochemistry, or consent of instructor.

### **PGS 197S. Seminar in Pharmacotherapy: Advanced Topics.**

One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PGS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in pharmacy and consent of the graduate adviser; for 698B, Pharmacy Graduate Studies 698A.

### **PGS 398T. College Teaching Methodology.**

Interdisciplinary course intended to provide a foundation of theoretical and practical knowledge about teaching at the post-secondary level. Instructional methods; instructional design; practice teaching; teaching philosophy; instructional technology; assessment of learning; class discussions; individual consultations. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 368T, Pharmacy Graduate Studies 398T, and Pharmacy PharmD 398T. Offered

on the letter-grade basis only. Prerequisite: Graduate standing or consent of instructor.

#### **PGS 399W, 699W, 799W, 899W, 999W. Dissertation.**

Pharmacy 399W, 699W, 799W, 899W, 999W and Pharmacy Graduate Studies 399W, 699W, 799W, 899W, 999W may not both be counted. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

### **Professional Courses**

## **Pharmacy PharmD Courses**

### **Pharmacy PharmD: PHM**

#### **Lower-Division Courses**

##### **PHM 310K. Drugs in Our Society.**

Survey of drug development, distribution, and safety, including therapeutic categories of drugs, their actions and abuse potential, and the sociological aspects of drug use. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 310K, 350K, Pharmacy PharmD 310K, 350K. Not open to students in the professional pharmacy curriculum and may not be counted toward the professional elective requirement in pharmacy.

##### **PHM 311K. Take your Medicine: Developing New Drug Products.**

Restricted to non-pharmacy majors. Explores the process, challenges, and issues in developing pharmaceutical products. An overview of drug development, approval, and consumer issues will be presented and discussed in the context of research practices, consumers, science, marketing, public welfare, and innovative practices. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

#### **Upper-Division Courses**

##### **PHM 338. Introduction to Pharmacology.**

Restricted to non-pharmacy majors. Survey of basic concepts and principles in pharmacology. Three lecture hours a week for one semester. Pharmacy 338 and Pharmacy PharmD 338 may not both be counted. Prerequisite: Credit or registration for Biology 365S, 446L, Biomedical Engineering 365R, 365S, or Kinesiology 324K.

##### **PHM 350K. Drugs in Our Society.**

Survey of drug development, distribution, and safety, including therapeutic categories of drugs, their actions and abuse potential, and the sociological aspects of drug use. Essay papers required. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 310K, 350K, Pharmacy PharmD 310K, 350K. Not open to students in the professional pharmacy curriculum and may not be counted toward the professional elective requirement in pharmacy. Prerequisite: Upper-division standing.

##### **PHM 160J, 260J, 360J. Basic Study in Pharmaceutical Research for Nonmajors.**

Original investigation in any area of the pharmaceutical sciences. For each semester hour of credit earned, three laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Consent of instructor and the dean.

### **Graduate Courses**

#### **Professional Courses**

##### **PHM 180. Pharmacotherapeutics of Vaccine-Preventable Diseases.**

Restricted to students in the College of Pharmacy. Examine the administration of safe and accurate immunization services to patients that will promote disease prevention and public health. Explore the national immunization standards through the Centers for Disease Control and Prevention. One lecture hour a week for one semester. Offered on the letter-grade basis only.

##### **PHM 480C. Human Normal Physiology/Pathophysiology and Basics in Pharmacology I.**

Integrated approach consisting of normal physiology (with limited functional anatomy), pathophysiology, and basic principles in pharmacology to address the etiology of disease states affecting the nervous, gastrointestinal, visual/olfactory, skin, muscular, and cardiovascular systems. Four lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

##### **PHM 480D. Human Normal Physiology/Pathophysiology II.**

Integrated approach consisting of normal physiology (with limited functional anatomy), pathophysiology, and basic principles in pharmacology to address the etiology of disease states affecting the blood/immune system, renal, pulmonary, endocrine, and metabolic systems. Also includes multi-systemic diseases related to infectious disease and cancer. Four lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 480C.

##### **PHM 280H. Landmark Studies in Cardiovascular Disease.**

Evidence-based clinical studies in support of drug therapy recommendations in the treatment of cardiovascular diseases. Two lecture hours a week for one semester. Pharmacy 280H and Pharmacy PharmD 280H may not both be counted. Prerequisite: Second-professional-year standing in pharmacy.

##### **PHM 180K. Medicinal Chemistry Principles.**

Introduction to medicinal chemistry principles. Subjects include drug metabolism and the transition from organic to medicinal chemistry. One lecture hour a week for one semester. Pharmacy 143M and Pharmacy PharmD 180K may not both be counted. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum, and credit or registration for Pharmacy PharmD 180P (or Pharmacy 143P).

##### **PHM 280L, 380L. Landmark Pharmacotherapy Studies in Primary Care.**

Reviewing, evaluating, and applying the results of landmark studies in pharmacotherapy to primary care practice. An examination of disease states encountered in primary care including diabetes, hypertension, dyslipidemias, and psychological disorders. For 280L, six laboratory hours a week for one semester; for 380L, nine laboratory hours a week for one semester. Only one of the following may be counted: Pharmacy PharmD 280L, 380L, Pharmacy 280L, 380L. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 195Q (or Pharmacy 163C), 185P (or Pharmacy 185P), 685E (or Pharmacy 695F), and 385G (or Pharmacy 395G).

##### **PHM 180P. Basic Pharmaceutical Sciences Laboratory.**

Laboratory exercises to support the basic pharmaceutical sciences courses. One hour of pre-laboratory lecture and three laboratory hours a week for one semester. Pharmacy 143P and Pharmacy PharmD 180P may not both be counted. Offered on the letter-grade basis only.

Prerequisite: Admission to the professional pharmacy curriculum, and credit or registration for Pharmacy PharmD 180K (or Pharmacy 143M).

### **PHM 180R, 280R, 380R. Basic Study in Pharmaceutical Research.**

Basic exploration in any area of the pharmaceutical sciences. For each semester hour of credit earned, three laboratory hours a week for one semester. No more than three semester hours may be counted toward the professional pharmacy elective requirement. May be repeated for credit. Prerequisite: Admission to the PharmD program and consent of instructor and the dean.

### **PHM 180S. Tools to Enhance Academic Success.**

Restricted to students in the College of Pharmacy. Investigate tools and resources available for enhancing academic success in the professional pharmacy curriculum. One lecture hour a week for one semester Pharmacy PharmD 180S and 182R (Topic: Enhancing Academic Success) may not both be counted. Offered on the letter-grade basis only.

### **PHM 180T, 280T, 380T. Global Health.**

Restricted to students in the College of Pharmacy. An exploration of health care issues outside the United States with an inside look at different cultures and healthcare systems to enhance global awareness and cultural competence in the practice of pharmacy. For every credit hour earned, one lecture hour per week for one semester. Offered on the letter-grade basis only.

### **PHM 280W. Psychiatric Pharmacy Practice and Drug Treatment of Mental Disorders.**

Advanced study in the pathophysiology of selected psychiatric disease states and the clinical presentation, phenomenology, diagnosis, and treatment of these disease states. Two lecture hours a week for one semester. Pharmacy 280W and Pharmacy PharmD 280W may not both be counted. Prerequisite: Credit or registration for Pharmacy PharmD 685F (or Pharmacy 695F), or consent of instructor.

### **PHM 181. Pharmacotherapeutics of the Renal and Autonomic Systems.**

An integrated approach to the etiology and treatment of disease states of the renal and autonomic systems. The equivalent of one lecture hour per week for one semester. Pharmacy PharmD 181 and 685D (or Pharmacy 665E) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 480D, 182, 483, and 392P.

### **PHM 181C, 281C. Professional Development Convocation I.**

Professional development issues and assessments for PharmD students in the first professional year. Includes students' professional and program-specific responsibilities, such as program evaluations, portfolios, and administrative requirements; practice opportunities in pharmacy; and expected areas and levels of professional growth as the student advances through the curriculum. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 142H, Pharmacy PharmD 181C, 281C, 281S. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

### **PHM 181D, 281D. Professional Development Convocation II.**

Professional development issues and assessments for PharmD students in the first professional year. Student fulfillment of professional and program-specific responsibilities (program evaluations, portfolios, administrative requirements), practice opportunities in pharmacy, and addressing the expected areas and levels of professional growth as the student advances through the curriculum. For each semester hour

of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 152H, Pharmacy PharmD 181D, 281D, 281T. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 181C, 281C, 281S (or Pharmacy 142H).

### **PHM 381H. Interprofessional Health Care for HIV Patient Management.**

Interprofessional teamwork, health literacy, treatment guidelines, patient safety, and medication reconciliation in the care of patients with the human immunodeficiency virus. Conducted at an HIV clinic in Texas. Students complete six hours of required Web-based instruction before beginning the clinical component. Six hours of online lecture and a minimum of fifty hours of fieldwork in one semester. Pharmacy 381H and Pharmacy PharmD 381H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

### **PHM 381K. Pharmaceutical Marketing.**

Concepts of marketing as they apply to the pharmaceutical industry, pharmaceutical products, and the health care environment. Three lecture hours a week for one semester. Pharmacy 320M and Pharmacy PharmD 381K may not both be counted. Prerequisite: Pharmacy PharmD 281L (or Pharmacy 244C) and 181P (or Pharmacy 144P).

### **PHM 281L. Personnel Management and Patient Behavior.**

Concepts and principles of management, and social and behavioral aspects of pharmacy practice. Two lecture hours a week for one semester. Only one of the following may be counted: Pharmacy PharmD 281L, 283L, Pharmacy 244C. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum and credit or registration for Pharmacy PharmD 181P (or Pharmacy 144P).

### **PHM 381M. Pharmaceutical Biochemistry I.**

Basic principles of intermediary metabolism, with emphasis on defects in pathways that result in disease and on identification of molecular targets for therapeutic control. Three lecture hours a week for one semester. Pharmacy 341C and Pharmacy PharmD 381M may not both be counted. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

### **PHM 281N. Pharmaceutical Biochemistry II.**

The biosynthesis and function of macromolecules (nucleic acids, lipids, proteins, and carbohydrates); sites of drug action, immunology, and applications of biotechnology and molecular biology to the pharmaceutical sciences. Two lecture hours a week for one semester. Pharmacy 251C and Pharmacy PharmD 281N may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 381M (or Pharmacy 341C).

### **PHM 181P. Personnel Management and Patient Behavior Laboratory.**

Explores issues in pharmacy practice. Includes case study discussions, group presentations, and small group work to enhance communication and teamwork skills. Three laboratory hours a week for one semester. Pharmacy 144P and Pharmacy PharmD 181P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum, and credit or registration for Pharmacy PharmD 281L (or Pharmacy 244C).

### **PHM 181R. Research Opportunities in the Pharmaceutical Sciences.**

An introduction to research in all divisions of the College of Pharmacy. Includes ethical issues in research, career paths in research, and subjects such as choosing a research mentor or project. One lecture hour and three laboratory hours a week for one semester. Pharmacy 151R and

Pharmacy PharmD 181R may not both be counted. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

### **PHM 181S, 281S. Foundations of Professional Development I.**

Restricted to students in the College of Pharmacy. In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars and team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 142H, Pharmacy PharmD 181C, 281C, 181S, 281S. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

### **PHM 181T, 281T. Foundations of Professional Development II.**

In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars, team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 152H, Pharmacy PharmD 181D, 281D, 181T, 281T. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 181C, or 281C, or 181S, or 281S, (or Pharmacy 142H).

### **PHM 181V. Pharmacy Practice Lab I.**

Restricted to students in the College of Pharmacy. Navigate the pharmacists' patient care process in preparation for Introductory and Advanced Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, assess, plan, implement and follow-up on patients at an introductory level. One lecture hour and three laboratory hours a week for one semester. Offered on the letter-grade basis only.

### **PHM 182. Pharmacotherapeutics of the Respiratory System.**

An integrated approach to the etiology and treatment of disease states of the respiratory system. The equivalent of one lecture hour per week for one semester. Pharmacy PharmD 182 and 685D (or Pharmacy 665E) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 480D, 182, 483, and 392P.

### **PHM 182C, 282C. Professional Development Convocation III.**

Professional development issues and assessments for PharmD students in the second professional year. Student fulfillment of professional and program-specific responsibilities (program evaluations, portfolios, administrative requirements), practice opportunities in pharmacy, and addressing the expected areas and levels of professional growth as the student advances through the curriculum. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 161H, Pharmacy PharmD

182C, 282C, 282S. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 181D, or 281D, or 281T, (or Pharmacy 152H).

### **PHM 182D, 282D. Professional Development Convocation IV.**

Professional development issues and assessments for PharmD students in the second professional year. Student fulfillment of professional and program-specific responsibilities (program evaluations, portfolios, administrative requirements), practice opportunities in pharmacy, and addressing the expected areas and levels of professional growth as the student advances through the curriculum. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 172H, Pharmacy PharmD 182D, 282D, 282T. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 182C, or 282C, or 282S, (or Pharmacy 161H).

### **PHM 282E. Nonprescription Pharmacotherapeutics and Self-Care I.**

Study of nonprescription products and complementary and alternative medicine as it relates to the patient's ability to care for themselves with emphasis on the pharmacist's consultant role in product selection and nonpharmacologic recommendations. Two lecture hours a week for one semester. Pharmacy 262D and Pharmacy PharmD 282E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

### **PHM 182F, 282F. Nonprescription Pharmacotherapeutics and Self-Care II.**

A continuation of Pharmacy PharmD 282E. The study of nonprescription products and complementary and alternative medicine as it relates to the patient's ability to care for themselves with emphasis on the pharmacist's consultant role in product selection and non-pharmacologic recommendations. For each hour of credit earned, one lecture hour a week for one semester. Pharmacy 172E and Pharmacy PharmD 282F may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 282E (or Pharmacy 262D).

### **PHM 282G. Pharmacy Business Plan Development.**

The fundamentals of writing a pharmacy business plan, including the mission statement, objectives, description of products and services, legal structure, location analysis, layout and design, pro forma financial statements, staffing, market analysis and strategies, and promotion and advertising plans, culminating in submission of the plan for national competition. Two lecture hours a week for one semester. Pharmacy 282D and Pharmacy PharmD 282G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 384K (or Pharmacy 326C) and completion of the second professional year in pharmacy, or consent of instructor.

### **PHM 182I. Nonprescription Pharmacotherapeutics and Self-Care: Introductory Pharmacy Practice Experience.**

Restricted to students in the College of Pharmacy. Participate in a hands-on experience in a community pharmacy setting related to the pharmacist's consultant role in nonprescription product selection (including complementary and alternative medicine) and non-pharmacologic recommendations in self-care. The equivalent of two hours of fieldwork a week for one semester. Only one of the following may be counted: Pharmacy PharmD 182P, 182I, Pharmacy 172P. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy; credit or registration for Pharmacy PharmD 282F.

### **PHM 382K. Experimental Design and Research Methods in Health Care.**

Concepts and procedures involved in designing and completing a research project. Three lecture hours a week for one semester.

Pharmacy 322H and Pharmacy PharmD 382K may not both be counted. Prerequisite: Admission to the Pharmacy Honors Program or consent of instructor.

### **PHM 382L. Clinical Toxicology.**

A course in toxicology that focuses on common poisons and their management; designed for pharmacy students planning to enter general practice. Three lecture hours a week for one semester. Pharmacy 362L and Pharmacy PharmD 382L may not both be counted. Prerequisite: Admission to the professional pharmacy curriculum.

### **PHM 182M, 282M, 382M. Interprofessional Approach to Integrative Medicine.**

Restricted to students in the College of Pharmacy. Explore an overview of the fundamentals of integrative medicine, including Traditional Chinese Medicine (TCM). Examine an interprofessional perspective of the interview and assessment of patients and the clinical reasoning used to develop patient care plans. For each semester hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only.

### **PHM 182P. Nonprescription Pharmacotherapeutics and Self Care II Laboratory.**

Laboratory practice related to the pharmacist's consultant role in nonprescription product selection (including complementary and alternative medicine) and non-pharmacologic recommendations in self-care; includes fieldwork in a community pharmacy. One lecture hour and three laboratory or fieldwork hours a week for one semester. Only one of the following may be counted: Pharmacy PharmD 182P, 182I, Pharmacy 172P. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 182F (or Pharmacy 172E), and current intern registration with the Texas State Board of Pharmacy.

### **PHM 182R, 282R, 382R. Basic Studies in the Pharmaceutical Sciences.**

Basic exploration in any area of the pharmaceutical and clinical sciences. For each semester hour of credit earned, one lecture hour a week for one semester. Pharmacy 161J, 261J, 361J and Pharmacy PharmD 182R, 282R, 382R may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum; additional prerequisites vary with the topic.

### **PHM 182S, 282S. Foundations of Professional Development III.**

In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars, team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 161H, Pharmacy PharmD 182C, 282C, 181S, 282S. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 181D, or 281D, 181T or 281T (or Pharmacy 152H).

### **PHM 182T, 282T. Foundations of Professional Development IV.**

In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and

Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars, team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 172H, Pharmacy PharmD 182D, 282D, 182T, 282T. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 182C, or 282C, or 182S, or 282S (or Pharmacy 161H).

### **PHM 182V. Pharmacy Practice Lab II.**

Restricted to students in the College of Pharmacy. Navigate the pharmacists' patient care process in preparation for Introductory Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, assess, plan, implement and follow-up on patients at an advanced introductory level. One lecture hour and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 181V.

### **PHM 483. Pharmacotherapeutics of the Cardiovascular System.**

An integrated approach to the etiology and treatment of disease states of the cardiovascular system. The equivalent of four lecture hours a week for one semester. Pharmacy PharmD 483 and 685D (or Pharmacy 665E) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 480D, 182, 483, and 392P.

### **PHM 183C, 283C. Professional Development Convocation V.**

Professional development issues and assessments for PharmD students in the third professional year. Student fulfillment of professional and program-specific responsibilities (program evaluations, portfolios, administrative requirements), practice opportunities in pharmacy, and addressing the expected areas and levels of professional growth as the student advances through the curriculum. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 182H, Pharmacy PharmD 183C, 283C, 283S. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 182D, or 282D, or 282T, (or Pharmacy 172H).

### **PHM 183D, 283D. Professional Development Convocation VI.**

Professional development issues and assessments for PharmD students in the third professional year. Student fulfillment of professional and program-specific responsibilities (program evaluations, portfolios, administrative requirements), practice opportunities in pharmacy, and addressing the expected areas and levels of professional growth as the student advances through the curriculum. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 192H, Pharmacy PharmD 182R (Topic: Profesnl Devel Convocation VI), 183D, 283D, 283T. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 183C, or 283C, or 283S, (or Pharmacy 182H).

### **PHM 383E. Development of Interprofessional Education for Collaborative Practice.**

A collaboration between students in pharmacy, nursing, social work, and medicine in the development of educational modules addressing interprofessional education in collaborative practice relating to error disclosure, service learning, healthcare quality improvement. Preprofessional introduction to interprofessional education competencies. Three lecture hours a week for one semester. Pharmacy 383E and Pharmacy PharmD 383E may not both be counted.

Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

### **PHM 183F. Basic Intravenous Admixtures.**

Basic principles of injectable and other sterile dosage forms; methods of preparation and evaluation that meet current pharmacy practice standards. One lecture hour a week for one semester. Pharmacy 183F and Pharmacy PharmD 183F may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 388M (or Pharmacy 356C), 188P (or Pharmacy 156P), and credit or registration for 183G (or Pharmacy 183G).

### **PHM 183G. Basic Intravenous Admixtures Laboratory.**

Basic laboratory principles in the preparation and evaluation of injectable and other sterile dosage forms. One lecture hour and three laboratory hours a week for one semester. Pharmacy 183G and Pharmacy PharmD 183G may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 388M (or Pharmacy 356C), 188P (or Pharmacy 156P) and credit or registration for 183F (or Pharmacy 183F).

### **PHM 383I. Institutional Introductory Pharmacy Practice Experience.**

Restricted to students in the College of Pharmacy. Participate in a hands-on experience at an institutional practice care facility; examine pharmacy services, hospital pharmacy management, staff interaction, and the flow of information from pharmacy to bedside. The equivalent of five and one-half lecture hours a week for one semester. Only one of the following may be counted: Pharmacy PharmD 383I, 386H and Pharmacy 377H. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy; completion of the second professional year of pharmacy school.

### **PHM 383K. New Concepts, Topics, and Issues in Pharmacy Practice.**

Three lecture hours a week for one semester. Pharmacy 322P and Pharmacy PharmD 383K may not both be counted. Prerequisite: Credit or registration for Pharmacy PharmD 384L (or Pharmacy 364D).

### **PHM 283L. Health Behavior and Health Outcomes.**

Restricted to students in the College of Pharmacy. Explore the concepts and principles of health behavior and health outcomes in a multicultural U.S. population. Two lecture hours a week for one semester. Only one of the following may be counted: Pharmacy PharmD 281L, 283L, Pharmacy 244C. Offered on the letter-grade basis only.

### **PHM 383M. Health Innovation Entrepreneurship.**

Restricted to graduate and professional students. Explore a highly interactive and interdisciplinary approach for developing health innovation, including drug product, devices, and digital health solutions. Examine foundational entrepreneurial and innovation concepts for identifying and developing ideas, performing market validation, conducting customer discovery, assessing competition, and identifying skills for effectively working in teams. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy Graduate Studies 380M (Topic: Entrepreneurship/Health Innovation), 383M, Pharmacy PharmD 382R (Topic: Entrepreneurship/Health Innovation), 383M. Offered on the letter-grade basis only.

### **PHM 183P. Pharmacotherapeutics I Laboratory.**

Problem-based laboratory course that integrates the pathophysiology, medicinal chemistry, pharmacology, and therapeutic aspects of various diseases in order to prepare students to make sound therapeutic decisions. Subjects introduced in Pharmacy PharmD 685D. Three laboratory hours a week for one semester. Pharmacy 165P and

Pharmacy PharmD 183P may not both be counted. Prerequisite: Credit or registration for Pharmacy PharmD 685D (or Pharmacy 665E).

### **PHM 183R, 283R, 383R. Advanced Study in Pharmaceutical Research.**

For each semester hour of credit earned, three laboratory hours a week for one semester. No more than three semester hours may be counted toward the professional pharmacy elective requirement. May be repeated for credit. Prerequisite: Second-professional-year standing and consent of instructor and the dean.

### **PHM 183S, 283S. Foundations of Professional Development V.**

In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars, team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 182H, Pharmacy PharmD 183C, 283C, 183S, 283S. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 182D, 282D, or 182T, 282T, (or Pharmacy 172H).

### **PHM 183T, 283T. Foundations of Professional Development VI.**

In-depth education and training to promote personal and professional development of students. Built on six interdependent pillars: Self-Awareness, Professionalism, Leadership, Career Development and Planning, Contemporary Issues in Practice, and Interprofessional Collaborative Practice (ICP). Employs a series of seminars, team-based workshops, and interprofessional learning experiences to inculcate students into the College of Pharmacy and profession of pharmacy. Focuses on self-awareness, professionalism, leadership development, career planning and decision-making, contemporary issues in pharmacy practice, and interprofessional collaboration. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 192H, Pharmacy PharmD 182R (Topic: Professional Development Convocation VI), 183D, 283D, 183T, 283T. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 183C, or 283C, or 183S, or 283S, (or Pharmacy 182H).

### **PHM 283U. Multidisciplinary Pain Management.**

Problem-based instruction to help health professions students acquire knowledge and skills in the care of patients with acute and chronic pain. Taught by faculty members in medicine, pharmacy, and nursing. Two lecture hours a week for one semester. Pharmacy 283U and Pharmacy PharmD 283U may not both be counted. Prerequisite: Consent of instructor.

### **PHM 183V. Pharmacy Practice Lab III.**

Restricted to students in the College of Pharmacy. Navigate the pharmacists' patient care process in preparation for Introductory Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, assess, plan, implement and follow-up on patients at an intermediate level. One lecture hour and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 182V.

### **PHM 184. Pharmacotherapeutics of the Gastrointestinal System and Nutrition.**

An integrated approach to the etiology and treatment of disease states of the gastrointestinal system. Also includes nutrition. The equivalent of one lecture hour per week for one semester. Pharmacy PharmD 184 and 385G (or Pharmacy 395G) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 181, 184P, 185, 486, or consent of the dean.

### **PHM 384D. Antimicrobics: Mechanism of Action and Clinical Use.**

Mechanisms of antimicrobial activity and the development of bacterial resistance, and their relationship to clinical therapy. Three lecture hours a week for one semester. Pharmacy 384D and Pharmacy PharmD 384D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 486 or 685E (or Pharmacy 675E), and 184P (or Pharmacy 175P).

### **PHM 284E, 384E. Pharmacy Law.**

State and federal pharmacy laws. For each semester hour of credit earned, one lecture hour a week for one semester. Pharmacy PharmD 284E and Pharmacy 284E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

### **PHM 184H. Antimicrobics: Advanced Inquiry.**

Designed to give students additional insight, beyond Pharmacy PharmD 384D, into the development of antimicrobial agents and the interactions of these agents with each other, the pathogen, and the patient. Students explore a self-selected topic for research and presentation. Conference course, with at least fifteen additional hours to be arranged. Pharmacy 184H and Pharmacy PharmD 184H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Registration for Pharmacy PharmD 384D.

### **PHM 284I. Community Introductory Pharmacy Practice Experience.**

Restricted to students in the College of Pharmacy. Participate in a hands-on experience in a community pharmacy setting. Explore medication therapy management training, the development of patient care plans, the ability to develop and conduct a public health project, carry out patient exercises, and complete prescription management activities such as patient counseling. The equivalent of five hours of fieldwork a week for one semester. Only one of the following may be counted: Pharmacy PharmD 284I, 287H and Pharmacy 287H. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy; Completion of the second professional year of pharmacy school.

### **PHM 384K. Community Pharmacy Management.**

Advanced concepts in community pharmacy management for the student who plans to become a pharmacy owner or manager. Covers operational, personnel, and financial management; marketing; layout and design; and the delivery of pharmaceutical care in a community pharmacy setting. Three lecture hours a week for one semester. Pharmacy 326C and Pharmacy PharmD 384K may not both be counted. Prerequisite: Pharmacy PharmD 281L (or Pharmacy 244C).

### **PHM 384L. Pharmacy and the Health Care System.**

The health care system in the United States; principles of managed care; application of pricing policies; and an overview of pharmacy services. Three lecture hours a week for one semester. Pharmacy 364D and Pharmacy PharmD 384L may not both be counted. Offered on the letter-

grade basis only. Prerequisite: Pharmacy PharmD 281L (or Pharmacy 244C) and 181P (or Pharmacy 144P).

### **PHM 184M, 284M. Pharmacy Professional Communications.**

Professional communication skills in interacting with patients and other health care professionals. For each hour of credit earned, one lecture hour a week for one semester. Pharmacy 266P and Pharmacy PharmD 284M may not both be counted. Offered on the letter-grade basis only.

### **PHM 184N. Interprofessional Ethics.**

Explores ethical issues in pharmacy practice and health care, with a focus on the perspectives of professionals in the fields of nursing, law, social work, and medicine. One lecture hour a week for one semester. May include five additional discussion hours. Only one of the following may be counted: Pharmacy PharmD 184N, 185N, Pharmacy 176E. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 281L (or Pharmacy 244C), 181P (or Pharmacy 144P), 384L (or Pharmacy 364D), and credit or registration for Pharmacy PharmD 282D (or Pharmacy 172H), 685E (Pharmacy 675E), and 184P (or Pharmacy 175P).

### **PHM 184P. Pharmacotherapeutics II Laboratory.**

Problem-based laboratory that integrates the pathophysiology, medicinal chemistry, pharmacology, and therapeutic aspects of various diseases in order to prepare students to make sound therapeutic decisions. Three laboratory hours a week for one semester. Pharmacy 175P and Pharmacy PharmD 184P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit for Pharmacy PharmD 685E (or Pharmacy 675E), or credit or registration for Pharmacy PharmD 181, 182, 483, 184, 185 and 486, or consent of the dean.

### **PHM 284S. Quality and Patient Safety Interprofessional Education.**

Concepts of patient safety and quality improvement. Current and past quality improvement projects are used to demonstrate the model of clinical safety and effectiveness. Reducing and preventing medical errors using the TeamSTEPPS approach; working in interprofessional teams on a quality improvement project. The equivalent of two lecture hours a week for one semester. Pharmacy 274S and Pharmacy PharmD 284S may not both be counted. Prerequisite: Completion of the second professional year in the College of Pharmacy.

### **PHM 184V. Pharmacy Practice Lab IV.**

Restricted to students in the College of Pharmacy. Navigate the pharmacists' patient care process in preparation for Introductory Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, assess plan, implement and follow-up on patients at an advanced intermediate level. One lecture hour and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 183V.

### **PHM 185. Pharmacotherapeutics of Diabetes.**

An integrated approach to the etiology and treatment of diabetes. The equivalent of one lecture hour per week for one semester. Pharmacy PharmD 185 and 385G (or Pharmacy 395G) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 181, 184, 486, 184P, or consent of the dean.

### **PHM 685D. Pharmacotherapeutics I.**

An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the etiology and treatment of adrenergic-based diseases; cholinergic-based diseases; inflammatory diseases; hypertension; acute and chronic renal disease; and cardiovascular disease, including hyperlipidemia, circulatory problems, thromboembolic disease, myocardial ischemia, myocardial infarction,

congestive heart failure, and arrhythmias. Six lecture hours a week for one semester. Pharmacy PharmD 181 and 685D (or Pharmacy 665E) may not both be counted. Pharmacy PharmD 182 and 685D (or Pharmacy 665E) may not both be counted. Pharmacy PharmD 483 and 685D (or Pharmacy 665E) may not both be counted. Pharmacy PharmD 685D (or Pharmacy 665E) and 190 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 282E (or Pharmacy 262D), 195Q (or Pharmacy 163C), 195P (or Pharmacy 163P) and 392P (or Pharmacy 392S).

#### **PHM 685E. Pharmacotherapeutics II.**

An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the pathogenesis and treatment of bacterial, viral, and fungal infections; immunizations against bacterial and viral diseases; and allergies, asthma, and chronic obstructive pulmonary disease. Six lecture hours a week for one semester. Pharmacy PharmD 685E (or Pharmacy 675E) and 486 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 685D (or Pharmacy 665E) and credit or registration for Pharmacy PharmD 182P (or Pharmacy 175P).

#### **PHM 685F. Pharmacotherapeutics III.**

An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the etiology and treatment of neurological and psychiatric disorders. Also includes therapeutics of pain management, anesthesia, drug addiction, and oncology. Six lecture hours a week for one semester. Pharmacy PharmD 685F (or Pharmacy 695F) and 288 may not both be counted. Pharmacy PharmD 685F (or Pharmacy 695F) or 291 may not both be counted. Pharmacy PharmD 685F (or Pharmacy 695F) and 292 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 685E (or Pharmacy 675E) and 182P (or Pharmacy 175P), and credit or registration for Pharmacy PharmD 185P (or Pharmacy 185P) and 385G (or Pharmacy 395G).

#### **PHM 385G. Pharmacotherapeutics IV.**

An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the etiology and treatment of hormonal disorders and gastrointestinal disorders. Three lecture hours a week for one semester. Pharmacy PharmD 184 and 385G (or Pharmacy 395G) may not both be counted. Pharmacy PharmD 185 and 385G (or Pharmacy 395G) may not both be counted. Pharmacy PharmD 385G (or Pharmacy 395G) and 187 may not both be counted. Pharmacy PharmD 385G (or Pharmacy 395G) and 189 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 685E (or Pharmacy 675E) and 182P (or Pharmacy 172P) and credit or registration for Pharmacy PharmD 185P (or Pharmacy 185P) and 685F (or Pharmacy 695F).

#### **PHM 385H. Pharmacotherapeutics of Special Populations.**

Subjects include geriatrics, pediatrics, pharmacogenomics, transplant patients, and under-served populations. Three lecture hours a week for one semester. Pharmacy PharmD 385H (or Pharmacy 396D) and 193 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 390N (or Pharmacy 371S), 190P (or Pharmacy 171P), 182F (or Pharmacy 172E), 182P (or Pharmacy 172P), 185P (or Pharmacy 185P), 685F (or Pharmacy 695F), and 385G (or Pharmacy 395G).

#### **PHM 185I. Ambulatory Introductory Pharmacy Practice Experience.**

Restricted to students in the College of Pharmacy. Participate in a hands-on experience in an ambulatory pharmacy setting. Work on patient care plans, review and evaluate patient medication lists, identify goals for common chronic disease states, utilize formularies in making drug

therapy decisions, and assess appropriate resources to respond to drug information questions in an ambulatory setting. The equivalent of two hours of fieldwork a week for one semester. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy; Completion of the second professional year of pharmacy school.

#### **PHM 185J. Independent Inquiry into Special Populations.**

Companion course to required course, Pharmacy PharmD 385H. Students identify a category issue associated with one of the four major modules of the course (under-served populations, geriatrics, pharmacogenomics, or pediatrics), and work closely with a faculty mentor to complete a comprehensive paper and presentation to the class. For each semester or credit hour earned, the equivalent of one lecture hour a week for one semester. Pharmacy 196G and Pharmacy Pharm D 185J may not both be counted. Offered on the letter-grade basis only. Prerequisite: Registration for Pharmacy PharmD 385H.

#### **PHM 385K. Applied Pharmacy Management.**

Examination and application of principles of pharmacy management, with emphasis on human resource management. Subjects include interviewing and selection techniques, assessing job performance, improving the work environment, leadership skills, management skills, managing medication errors, and quality improvement of pharmacy services. Three lecture hours a week for one semester. Pharmacy 326M and Pharmacy PharmD 385K may not both be counted. Prerequisite: Pharmacy PharmD 281L (or Pharmacy 244C) and 181P (or Pharmacy 144P).

#### **PHM 185N. Biomedical and Professional Ethics.**

Restricted to students in the College of Pharmacy. Explore biomedical and professional ethics and the implications and challenges for pharmacy practice. Examine core principles and theories in biomedical and professional ethics including the pharmacy code of ethics and codes of ethics for other healthcare practitioners. One lecture hour a week for one semester. Only one of the following may be counted: Pharmacy PharmD 184N, 185N, Pharmacy 176E. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

#### **PHM 185P. Pharmacotherapeutics III Laboratory.**

Problem-based laboratory that integrates the pathology, medicinal chemistry, pharmacology, and therapeutic aspects of various diseases in order to prepare students to make sound therapeutic decisions. Three laboratory hours a week for one semester. Pharmacy 185P and Pharmacy PharmD 185P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit for Pharmacy PharmD 685E (or Pharmacy 675E), 185P (or Pharmacy 175P), 685F (or Pharmacy 695F), and 385G (or Pharmacy 395G); or credit or registration for Pharmacy PharmD 184P, 187, 288, 189, and 190; or consent of the dean.

#### **PHM 185V. Pharmacy Practice Lab V.**

Restricted to students in the College of Pharmacy. Navigate the pharmacists' patient care process in preparation for Introductory Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, assess plan, implement and follow-up on patients at an advanced level. One lecture hour and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 184V.

#### **PHM 486. Pharmacotherapeutics of Infectious Diseases.**

An integrated approach to the etiology and treatment of infectious disease. The equivalent of four lecture hours a week for one semester. Pharmacy PharmD 685E (or Pharmacy 675E) and 486 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or

registration for Pharmacy PharmD 181, 184, 184P, and 185; or consent of the dean.

### **PHM 186E. Careers in Academic Pharmacy.**

Restricted to students in the College of Pharmacy. Examine pharmacy education with a focus on the three pillars of academia: teaching, service, and scholarship. One lecture hour a week for one semester Pharmacy PharmD 182R (Topic: Careers in Academic Pharm) and 186E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 181T, or consent of instructor

### **PHM 386G. Spanish for the Pharmacy Professional.**

Intermediate communication skills in Spanish. Three lecture hours a week for one semester. Pharmacy 386G and Pharmacy PharmD 386G may not both be counted. Prerequisite: Completion of the second professional year in the College of Pharmacy, and one year of college-level Spanish or consent of instructor.

### **PHM 386H. Institutional Clinical Skills.**

Hands-on experience in an institutional practice care facility; examines pharmacy services, hospital pharmacy management, staff interaction, and the flow of information from pharmacy to bedside. Forty hours a week for two weeks. Only one of the following may be counted: Pharmacy PharmD 383I, 386H and Pharmacy 377H. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy; and Pharmacy PharmD 287D (or Pharmacy 242D), 281L (or Pharmacy 244C), 181P (or Pharmacy 144P), 195Q (or Pharmacy 163C), 195P (or Pharmacy 163P), 384L (or Pharmacy 364D), 284M (or Pharmacy 266P), 190P (or Pharmacy 171P), 390N (or Pharmacy 371S), 282D (or Pharmacy 172H), 685E (or Pharmacy 675E), 182P (or Pharmacy 175P), 184N (or Pharmacy 176E) and 289P (or Pharmacy 277P, or 177G and 177P).

### **PHM 386K. Pharmacy Association Management.**

An introduction to the principles involved in managing pharmacy associations. Students gain practical experience in a community pharmacy. Nine hours of fieldwork a week for one semester. Pharmacy 329C and Pharmacy PharmD 386K may not both be counted. Prerequisite: Pharmacy PharmD 281L (or Pharmacy 244C) and 181P (or Pharmacy 144P) and consent of instructor.

### **PHM 186P. Advanced Pharmacotherapeutics Laboratory.**

Provides a safe, structured, and supportive laboratory setting for students to develop individual presentation skills necessary for professional practice. Presentations include journal clubs, development of data-driven drug therapy algorithms, and brief case presentations. One lecture hour and three laboratory hours a week for one semester. Pharmacy 194P and Pharmacy PharmD 186P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit for Pharmacy PharmD 685F (or Pharmacy 695F), 385G (or Pharmacy 395G), and 185P (or Pharmacy 185P); or credit or registration for Pharmacy PharmD 185P, 291, 292, and 193; or consent of the dean.

### **PHM 186Q. Experiential Pharmacy Practice and Patient Counseling.**

Medication use and dispensing in a practice environment. Counseling skills and techniques for a better understanding of disease states and positive medication outcomes. Three laboratory hours a week for one semester. Pharmacy 176P and Pharmacy PharmD 186Q may not both be counted. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy, and completion of the first professional year in the College of Pharmacy.

### **PHM 286R. Advanced Contemporary Compounding.**

The art and science of compounding pharmaceutical preparations to develop an advanced understanding of formulation, stability, and quality standards of compounded pharmaceuticals. Focuses on pharmaceutical elegance; developing professional judgement based on limited data to assess the stability and efficacy of a compound before dispensing the preparation; the regulations governing compounding, including those outlined by the United States Pharmacopeial Convention, the Pharmacy Compounding Accreditation Board, and other scientific and professional organizations; mechanisms for evaluation and analysis of the quality of a compounded formulation; and marketing and promotion of compounding services. Two lecture hours a week for one semester. Pharmacy 256R and Pharmacy PharmD 286R may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 388M (or Pharmacy 356C) and 188P (or Pharmacy 156P).

### **PHM 186S. Advanced Contemporary Compounding Laboratory.**

Advanced compounding methods with respect to pharmaceutical dosage forms and formulations, with emphasis placed on creating formulations that satisfy unique patient needs, and a discussion of equipment used by compounding pharmacists to formulate preparations that satisfy those needs. Pharmacy PharmD 186S builds upon compounding skills taught in Pharmacy PharmD 188P. Three laboratory hours a week for one semester. Pharmacy 156S and Pharmacy PharmD 186S may not both be counted. Offered on the letter-grade basis only. Prerequisite: Registration for Pharmacy PharmD 286R.

### **PHM 186V. Pharmacy Practice Lab VI.**

Restricted to students in the College of Pharmacy. Navigate the pharmacists' patient care process in preparation for Introductory Pharmacy Practice Experiences. Utilize critical-thinking, problem-solving and communication skills to collect, assess, plan, implement and follow-up on patients. One lecture hour and three laboratory hours a week for one semester Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 185V.

### **PHM 187. Pharmacotherapeutics of the Endocrine System.**

An integrated approach to the etiology and treatment of disease states of the endocrine system. The equivalent of one lecture hour per week for one semester. Pharmacy PharmD 385G (or Pharmacy 395G) and 187 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 181 and 184P or consent of the dean.

### **PHM 287D. Introduction to Patient Care.**

Basic aspects of caring for patients. Includes fieldwork in a local eldercare facility. One lecture hour and up to three laboratory hours a week for two semesters; and a minimum of twelve additional hours of fieldwork to be arranged over two semesters. Only one of the following may be counted: Pharmacy 242D, Pharmacy PharmD 287D, 187F. Only one of the following may be counted: Pharmacy 242D, Pharmacy PharmD 287D, 187G. Offered on the letter-grade basis only. Prerequisite: For Pharmacy PharmD 287DA, admission to the professional pharmacy curriculum; for 287DB, Pharmacy PharmD 287DA (or Pharmacy 242DA).

### **PHM 187E. Emotions, Ethics, and Empathy.**

Restricted to students in the College of Pharmacy. Explore emotions, ethics, and what it means to be an empathetic pharmacist. One lecture hour a week for one semester Pharmacy PharmD 182R (Topic: Emotions Ethics and Empathy) and 187E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 185N, or consent of instructor

### **PHM 187F. Foundations of Patient-Centered Care I.**

Restricted to students in the College of Pharmacy. Explore a broad overview of the pharmacist's role in patient-centered care through lectures, simulations, activities, and writing assignments. One lecture hour a week and seven additional fieldwork hours for one semester. Only one of the following may be counted: Pharmacy 242D, Pharmacy PharmD 287D, 187F. Offered on the letter-grade basis only.

### **PHM 187G. Foundations of Patient-Centered Care II.**

Restricted to students in the College of Pharmacy. Continue to explore a broad overview of the pharmacist's role in patient-centered care through lectures, simulations, activities, and writing assignments. One lecture hour a week and seven additional fieldwork hours for one semester. Only one of the following may be counted: Pharmacy 242D, Pharmacy PharmD 287D, 187G. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 187F.

### **PHM 287H, 387H. Community Care Clinical Skills.**

Clinical work in a community-based pharmacy practice setting. Includes medication therapy management training, participation in the development of patient care plans, the ability to develop and conduct a public health project, carry out patient exercises, and complete prescription management activities such as patient counseling. For Pharmacy PharmD 287H, 96 hours of fieldwork for one semester, for 387H, 120 hours of fieldwork for one semester. Only one of the following may be counted: Pharmacy PharmD 284I, 287H and Pharmacy 287H. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy; Pharmacy PharmD 195Q (or Pharmacy 163C), 195P (or Pharmacy 163P), 384L (or Pharmacy 364D), 284M (or Pharmacy 266P), 182F (or Pharmacy 172E), 182P (or Pharmacy 172P), 184N (or Pharmacy 176E), 289P (or 277P) and 392P (or Pharmacy 392S).

### **PHM 187J, 287J, 387J. Advanced Problems in Pharmacy Education.**

Laboratory course examining professional education issues and techniques for students exploring an academic career. For each semester hour of credit earned, three laboratory hours a week for one semester. Only one of the following may be counted: Pharmacy 187J, 287J, 387J, Pharmacy PharmD 187J, 287J, 387J. Prerequisite: Completion of all first-year professional coursework and consent of the dean.

### **PHM 687K. Pharmacy Association Management Residency.**

Experience working in a pharmacy association, including active involvement in some managerial aspect of the association. Eighteen hours of fieldwork a week for one semester. Only one of the following may be counted: Pharmacy 629D and Pharmacy PharmD 687K. Prerequisite: Pharmacy PharmD 384L (or Pharmacy 364D) and consent of instructor.

### **PHM 387M. Physical and Chemical Principles of Drugs.**

Fundamental, introductory principles of pharmaceuticals, including thermodynamics, kinetics, and other basic chemical principles related to drugs. Three lecture hours a week for one semester. Pharmacy 342C and Pharmacy PharmD 387M may not both be counted. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum, and credit or registration for Pharmacy PharmD 187P (or Pharmacy 142P).

### **PHM 287N. Biopharmaceutics.**

Complements the basic pharmaceuticals principles covered in Pharmacy PharmD 387M. Subjects include core concepts in biopharmaceutics of drugs. Two lecture hours a week for one semester. Pharmacy 252C and Pharmacy PharmD 287N may not both be counted. Offered on the letter-

grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

### **PHM 187P. Physical and Chemical Principles of Drugs Laboratory.**

Problem-based learning exercises to reinforce the material presented in Pharmacy PharmD 387M. One lecture hour and three laboratory hours a week for one semester. Pharmacy 142P and Pharmacy PharmD 187P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum, and credit or registration for Pharmacy PharmD 387M (or Pharmacy 342C).

### **PHM 187R. Exploratory Research in Pharmacy.**

The student participates in ongoing in-depth research activities in pharmaceuticals, medicinal chemistry, toxicology, pharmacology, pharmacy administration, pharmacy practice, or pharmacotherapy. At least seven research hours a week for one semester. May be repeated for credit. Prerequisite: Pharmacy PharmD 181R (or Pharmacy 151R) and admission to the Pharmacy Honors Program, or consent of the dean.

### **PHM 288. Pharmacotherapeutics of Oncology and Transplant.**

An integrated approach to the etiology and treatment of disease states related to oncology and transplants. The equivalent of two lecture hours per week for one semester. Pharmacy PharmD 685F (or Pharmacy 695F) and 288 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 181 and 184P, or consent of the dean.

### **PHM 288E. Clinical Drug Development: Regulatory Perspectives.**

Restricted to students in the College of Pharmacy. Explore the regulatory affairs involved in the review, submission, and design of clinical trials for compounds being considered for Food and Drug Administration approval. Two lecture hours a week for one semester Pharmacy PharmD 282R (Topic: Drug Devlpmt Clin Perspective) and 288E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 388M or consent of instructor

### **PHM 288H. Pharmacy Honors Proposal and Tutorial Course.**

Honors seminar; development of laboratory research proposal for approval by the Honors Program Committee. One lecture hour and three hours of independent research a week for one semester. Pharmacy 278H and Pharmacy PharmD 288H may not both be counted. Prerequisite: Admission to the Pharmacy Honors Program.

### **PHM 188K, 288K, 388K. Hospital Pharmacy.**

Restricted to students in the College of Pharmacy Basic principles, standards, and procedures involved in providing professional pharmaceutical services in hospitals. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 372K, Pharmacy PharmD 188K, 288K, 388K.

### **PHM 388M. Pharmaceutics.**

General introduction to dosage forms, and the technology and pharmaceutical rationale fundamental to their development. Three lecture hours a week for one semester. Pharmacy 356C and Pharmacy PharmD 388M may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 387M (or Pharmacy 342C) and 187P (or Pharmacy 142P) and credit or registration for Pharmacy PharmD 188P (or Pharmacy 156P).

**PHM 188P. Pharmaceutics Laboratory.**

Laboratory course supporting the subjects discussed in Pharmacy PharmD 388M. One hour of pre-laboratory lecture and three laboratory hours a week for one semester. Pharmacy 156P and Pharmacy PharmD 188P may not both be counted. Prerequisite: Credit or registration for Pharmacy PharmD 388M (or Pharmacy 356C).

**PHM 189. Pharmacotherapeutics of the Reproductive System.**

An integrated approach to the etiology and treatment of disease states related to reproductive health. The equivalent of one lecture hour per week for one semester. Pharmacy PharmD 385G (or Pharmacy 395G) and 189 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 181 and 184P, or consent of the dean.

**PHM 389E. Modern Trends in Drug Design.**

Restricted to students in the College of Pharmacy. Examine drug metabolism, pharmacogenomics, mechanisms of drug action, and approaches used in modern drug discovery and development. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy Graduate Studies 396M, Pharmacy PharmD 382R (Topic: Mdrn Trends in Drug Design), 389E. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 388M or consent of instructor

**PHM 489H. Pharmacy Honors Thesis and Tutorial Course.**

Honors seminar; laboratory research project conducted under the supervision of one or more faculty members. One lecture hour and nine laboratory hours a week for one semester. Pharmacy 479H and Pharmacy PharmD 489H may not both be counted. Prerequisite: Pharmacy PharmD 288H (or Pharmacy 278H).

**PHM 389K. Social Media and Consumer Healthcare.**

An exploration of how social media is transforming healthcare and improving patient outcomes. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 282E (or Pharmacy 262D), 182F (or Pharmacy 172E), and 182P (or Pharmacy 172P).

**PHM 389M. Fundamentals of Health Innovations.**

Restricted to students in a professional program. Explore foundational innovation and entrepreneurship concepts related to the process of developing novel drug therapies, medical devices, diagnostics, and digital health products and services. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy Graduate Studies 380M (Topic: Fundamentals of Health Innovations), 389M, Pharmacy PharmD 382R (Topic: Fundamentals of Health Innovations), 389M. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

**PHM 289P. Introduction to Clinical Skills Laboratory.**

Designed to develop the practical skills necessary in a pharmacy setting, with a focus on patient histories, how to read and interpret patient charts, adult immunizations (including APhA certification), and training and certification in CPR from American Heart Association facilitators. Laboratory includes practical application of pharmacy clinical skills. One lecture hour and three laboratory hours a week for one semester. Pharmacy 277P and Pharmacy PharmD 289P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy; Pharmacy PharmD 284M (or Pharmacy 266P) and 392P (or Pharmacy 392S); and credit or registration for Pharmacy PharmD 685E (or Pharmacy 675E) and 184P (or Pharmacy 175P).

**PHM 189S, 289S, 389S. Community Service Learning.**

Community-based participatory projects designed to connect coursework and community service experiences. Past and present health issues specific to the Texas region (such as United States-Mexico border issues), national and regional health initiatives, service challenges and opportunities, as well as personal/professional identities and responsibilities to the community. Projects developed in consultation with a faculty mentor and a selected community site. Includes an academic service-learning component. For each semester credit hour earned, one lecture hour a week for one semester; with a minimum of two fieldwork hours a week at a service-learning site to be arranged. Only one of the following may be counted: Pharmacy 169S, 269S, 369S, Pharmacy PharmD 189S, 289S, 389S. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

**PHM 190. Pharmacotherapeutics of Dermatology and Inflammatory Processes.**

An integrated approach to the etiology and treatment of disease states of the dermis. Includes inflammatory responses. The equivalent of one lecture hour per week for one semester. Pharmacy PharmD 685D (or Pharmacy 665E) and 190 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 181, PHM 184P, or consent of the dean.

**PHM 390C. Communication Skills for Health Professionals.**

Designed for pharmacy, pre-pharmacy, premedical, pre dental, and nursing students. Enhancement of verbal communication skills for professional and public presentations, patient consultations, and interviewing. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 370C, Pharmacy PharmD 370C, or Pharmacy PharmD 390C. Offered on the letter-grade basis only.

**PHM 290D. Nutritional Aspects of Clinical Pharmacy.**

Explores the interrelationships of nutrition, disease, and drug therapy, including aspects of both normal and clinical nutrition, nutritional deficiencies, and the metabolic consequences or diseases associated with malnutrition. Patient case studies examine both the effects of drug therapy on nutrition and the effects of nutrition on drug therapy. Disease states covered include cardiovascular disease, diabetes, hepatic and renal failure, and anemia. Two lecture hours a week for one semester. Pharmacy 270D and Pharmacy PharmD 290D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 685F (or Pharmacy 695F) and 385G (or Pharmacy 395G).

**PHM 390E. Controlled Substances: Violations, Investigations, and Enforcement.**

Restricted to students in the College of Pharmacy. Explore violations of federal and state-controlled substances laws and rules, and analyze the pharmacist's role in enforcement. Three lecture hours a week for one semester. Pharmacy PharmD 382R (Topic: Cntrlrd Subst Violatn Invgtn) and 390E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 185N or consent of instructor

**PHM 290H. Pharmacy Research Honors Proposal.**

Restricted to students in the College of Pharmacy. Write a research proposal and conduct a research project under the supervision of one or more faculty members. The equivalent of four laboratory hours a week for one semester. Offered on the letter-grade basis only.

**PHM 390K. Clinical Management of Drug-Drug Interactions.**

Group discussions with an emphasis on clinically relevant drug-drug interactions, mechanisms, significance, and clinical management. Three lecture hours a week for one semester. Prerequisite: Completion of the

second professional year in the College of Pharmacy and consent of instructor.

### **PHM 290L. Introduction to Nuclear Pharmacy.**

An overview of nuclear pharmacy, a recognized specialty area of pharmacy practice focusing on the compounding and dispensing of radioactive materials for use in nuclear medicine procedures (therapeutic, diagnostic, and imaging). Two lecture hours a week for one semester. Pharmacy 270N and Pharmacy PharmD 290L may not both be counted. Prerequisite: Pharmacy PharmD 287N (or Pharmacy 252C), 190P (or Pharmacy 171P) and 390N (or Pharmacy 371S); or consent of instructor.

### **PHM 290M. Inpatient Adult Medicine.**

Clinical therapeutic management of adult patients in an inpatient, institutional (primarily hospital) setting. Two lecture hours a week for one semester. Pharmacy 270M and Pharmacy PharmD 290M may not both be counted. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

### **PHM 390N. Integrated Basic and Applied Pharmacokinetics.**

Introduction to pharmacokinetic principles; and the application of principles to specific drugs and patient situations. Three lecture hours a week for one semester. Pharmacy 371S and Pharmacy PharmD 390N may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 387M (or Pharmacy 342C), 187P (or Pharmacy 142P), 287N (or Pharmacy 252C), 388M (or Pharmacy 356C), and 188P (or Pharmacy 156P); and credit or registration for Pharmacy PharmD 171P (or Pharmacy 171P), 675E (or Pharmacy 675E), and 175P (or Pharmacy 175P).

### **PHM 190P. Integrated Basic and Applied Pharmacokinetics Laboratory.**

Problem-based and case-based application of pharmacokinetic principles to specific drugs and patient situations. One lecture hour and three laboratory hours a week for one semester. Pharmacy 171P and Pharmacy PharmD 190P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 390N (or Pharmacy 371S).

### **PHM 390S. Interprofessional Community Service Learning.**

Integration of community service with contemporary pharmacy practice, with a focus on social justice and social determinants of health care. Weekly online didactic modules, a minimum of fifty hours of service learning practicum with a community partner, and twice monthly group meetings. Pharmacy 370S and Pharmacy PharmD 390S may not both be counted. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy.

### **PHM 390T. Pharmacy International Exchange.**

Work in an exchange program with international colleges and schools of pharmacy as partners. Examination of similarities and differences between pharmacy education, professional practice, and/or research in the hosting country and in the United States. Forty hours of fieldwork a week for one semester. Pharmacy 390T and Pharmacy PharmD 390T may not both be counted. Prerequisite: Completion of the first professional year in the College of Pharmacy and consent of instructor.

### **PHM 390V. Patient Safety.**

Covers methods to ensure patient safety, prevent misadventures, and develop policy associated with patient safety and misadventure prevention. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 361J (Topic: Patient Safety

and You), 390V, and Pharmacy PharmD 390V. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 284M (or Pharmacy 266P).

### **PHM 290W. Health Leadership.**

Develops skills necessary to identify and establish professional goals, build and lead teams, delegate effectively, resolve conflicts, network for career advancement, document leadership experiences/abilities on curriculum vitae and in recommendation letters, and demonstrate leadership abilities during job interviews. Two lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 261J (Topic: Health Leaders), 290W or Pharmacy PharmD 290W. Offered on the letter-grade basis only.

### **PHM 291. Pharmacotherapeutics of Pain and Addiction.**

An integrated approach to the etiology and treatment of disease states related to pain and addiction. The equivalent of two lecture hours per week for one semester. Pharmacy PharmD 685F (or Pharmacy 695F) and 291 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 181 or consent of the dean.

### **PHM 291H. Pharmacy Research Honors Report.**

Restricted to students in the College of Pharmacy. Continue to conduct a research project and complete a laboratory research report under the supervision of one or more faculty members. The equivalent of four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 290H.

### **PHM 291K. Pediatric Pharmacotherapy.**

Pathophysiology and pharmacotherapy of selected pediatric diseases. Designed to expose students to pediatric pharmacy as a potential area of focus, and to prepare them for a potential residency or practice in providing pharmaceutical care in a pediatric setting. Two lecture hours a week for one semester. Pharmacy 282Q and Pharmacy PharmD 291K may not both be counted. Prerequisite: Completion of the first professional year in the College of Pharmacy.

### **PHM 191L. Leadership in Community Service Learning.**

Designed for students enrolled in Pharmacy PharmD 390S and 381H who elect to serve in a leadership role for the community service-learning project. Involves coordination and organization of responsibilities at each phase of the project, communication with community partners, and additional outreach based on the needs of the community partner. Includes development of a plan and disseminate of the project outcomes. A minimum of six in-person meetings with the instructor, with additional meetings scheduled as needed, including online and by telephone. Pharmacy 171L and Pharmacy PharmD 191L may not both be counted. Prerequisite: Credit or registration for Pharmacy PharmD 390S (or Pharmacy 370s) or 381H (or Pharmacy 381H).

### **PHM 291M. Introduction to Ambulatory Care Pharmacy.**

Clinical and non-clinical topics relevant to treating commonly encountered disease states, effectively communicating with patients, and managing a clinical pharmacy practice in an ambulatory setting. Emphasis on application of concepts learned in previous classes to real-world situations. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Pharmacy PharmD 282E, and 182F, and 182P.

### **PHM 191U. Foundations for Interprofessional Collaborative Practice I.**

Restricted to students in the College of Pharmacy. Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based

immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team. One lecture hour per week and six interprofessional sessions for one semester. Offered on the letter-grade basis only.

#### **PHM 191V. Foundations for Interprofessional Collaborative Practice II.**

Restricted to students in the College of Pharmacy. Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team. One lecture hour per week and six interprofessional sessions for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 191U.

#### **PHM 391W. Leadership and Advocacy in Pharmacy.**

A discussion forum for exploring current legislative and regulatory issues influencing the pharmacy profession. Focuses on retrieving legislative and regulatory information, interpreting legislation, regulations and their potential impacts, engaging in discussion on various perspectives of the issues and presenting information on legislation and regulations that impact pharmacy practice. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 361J (Topic: Leadership and Advocacy in Pharmacy), 391W, and Pharmacy PharmD 391W. Offered on the letter-grade basis only. Prerequisite: Admission to the professional pharmacy curriculum.

#### **PHM 292. Pharmacotherapeutics of Psychiatric Disorders.**

An integrated approach to the etiology and treatment of disease states related to psychiatrics. The equivalent of two lecture hours per week for one semester. Pharmacy PharmD 685F (or Pharmacy 695F) and 292 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 181 or consent of the dean.

#### **PHM 292G, 392G. Herbal and Botanical Supplements.**

A practice-based approach to learning about the most common herbal and botanical supplements in a pharmacy practice setting, including review of studies of popular uses, clinical indications, pharmacological effects, mechanisms of action, side effects, contraindications, and common dosage guidelines. Discussion of the legal, regulatory, and ethical aspects, in addition to analyzing manufacturing quality issues and counterfeit products is also addressed. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Pharmacy 292G, 392G, Pharmacy PharmD 292G, 392G. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 282E (or Pharmacy 262D), 195Q (or Pharmacy 163C), and 182F (or Pharmacy 172E).

#### **PHM 292H. Pharmacy Research Honors Project.**

Restricted to students in the College of Pharmacy. Continue to conduct a research project and complete a review of a research article, under the supervision of one or more faculty members. The equivalent of four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 291H.

#### **PHM 192M, 292M, 392M. Introduction to Specialty Pharmacy Practice.**

Restricted to students in the College of Pharmacy. Explore the basic principles, standards, and procedures involved in providing professional pharmaceutical services in a specialty pharmacy. For each semester

hour of credit earned, one lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year of pharmacy school.

#### **PHM 392P. Patient Assessment Skills Laboratory.**

Introduction to patient assessment techniques skills needed to provide pharmaceutical care. Two lecture hours and three laboratory hours a week for one semester. Pharmacy 392S and Pharmacy PharmD 392P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy, and Pharmacy PharmD 480C (or Pharmacy 253C) and 480D (or Pharmacy 253D).

#### **PHM 192U. Foundations for Interprofessional Collaborative Practice III.**

Restricted to students in the College of Pharmacy. Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team. One lecture hour per week and six interprofessional sessions for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 191V.

#### **PHM 192V. Foundations for Interprofessional Collaborative Practice IV.**

Restricted to students in the College of Pharmacy. Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team. One lecture hour per week and six interprofessional sessions for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 192U.

#### **PHM 193. Pharmacotherapeutics of Neurologic Disorders.**

An integrated approach to the etiology and treatment of disease states related to neurology. The equivalent of one lecture hour per week for one semester. Pharmacy PharmD 385H (or Pharmacy 396D) and 193 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 181 or consent of the dean.

#### **PHM 693C. Ambulatory Care Pharmacy Practice.**

Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in the context of ambulatory patient care. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Pharmacy 693C and Pharmacy PharmD 693C may not both be counted. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy; during the fall and spring semesters, concurrent enrollment in two of the following: Pharmacy PharmD 693E (or Pharmacy 693E), 693N (or Pharmacy 693N), 693P (or Pharmacy 693P), 693S (or Pharmacy 693S), 694C (or Pharmacy 694C), 694E (or Pharmacy 694E), 694S (or Pharmacy 694S), or 695E (or Pharmacy 695E).

#### **PHM 693E. Elective in Pharmacy Practice I.**

Experience in pharmacy practice, research, or administration. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Pharmacy 693E and Pharmacy PharmD 693E may

not both be counted. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy; during the fall and spring semesters, concurrent enrollment in two of the following: Pharmacy PharmD 693C (or Pharmacy 693C), 693N (or Pharmacy 693N), 693P (or Pharmacy 693P), 693S (or Pharmacy 693S), 694C (or Pharmacy 694C), 694E (or Pharmacy 694E), 694S (or Pharmacy 694S), or 695E (or Pharmacy 695E).

#### **PHM 393F. Pharmacoeconomics and Pharmacy Management.**

Restricted to students in the College of Pharmacy. Explore the terms, concepts, procedures, methods, problems, and strengths associated with pharmacoeconomics. Examine and utilize health information resources to manage medication use and minimize medication errors. Evaluate information regarding the financial status of the pharmacy and implications of the decisions faced by managers in reaching financial goals for the pharmacy. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 394F, Pharmacy Graduate Studies 393T, Pharmacy PharmD 393F, 394F. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 384L (or Pharmacy 364D) or consent of instructor.

#### **PHM 293H. Pharmacy Research Honors Thesis.**

Restricted to students in the College of Pharmacy. Conduct a research project and write an honors thesis under the supervision of one or more faculty members. The equivalent of four laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 292H.

#### **PHM 193M. Pharmacy Residency Preparation.**

Restricted to students in the College of Pharmacy. Explore pharmacy residency and the skills needed to be competitive residency applicants. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year of pharmacy school or consent of instructor.

#### **PHM 693N. Advanced Hospital Pharmacy Practice.**

Analysis of pharmacotherapy, evaluation of drug use, synthesis of rational drug regimens, and dispensing of medications in the context of institutional patient care. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Pharmacy 693N and Pharmacy PharmD 693N may not both be counted. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy; during the fall and spring semesters, concurrent enrollment in two of the following: Pharmacy PharmD 693C (or Pharmacy 693C), 693P (or Pharmacy 693P), 693S (or Pharmacy 693S), 694C (or Pharmacy 694C), 694E (or Pharmacy 694E), 694S (or Pharmacy 694S), or 695E (or Pharmacy 695E).

#### **PHM 693P. Advanced Community Pharmacy Practice.**

Analysis of pharmacotherapy, evaluation of drug use, synthesis of rational drug regimens, and dispensing of medications in the context of community-based patient care. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Pharmacy 693P and Pharmacy PharmD 693P may not both be counted. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy; during the fall and spring semesters, concurrent enrollment in two of the following: Pharmacy PharmD 693C (or Pharmacy 693C), 693E (or Pharmacy 693E), 693N (or Pharmacy 693N), 693S (or Pharmacy

693S), 694C (or Pharmacy 694C), 694E (or Pharmacy 694E), 694S (or Pharmacy 694S), or 695E (or Pharmacy 695E).

#### **PHM 693R. Supplemental Rotation in Pharmacy Practice I.**

Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in the context of patient care. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

#### **PHM 693S. Selective in Pharmacy Practice I.**

Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in a selected pharmacy practice environment. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Pharmacy 693S and Pharmacy PharmD 693S may not both be counted. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy; during the fall and spring semesters, concurrent enrollment in two of the following: Pharmacy PharmD 693C (or Pharmacy 693C), 693E (or Pharmacy 693E), 693N (or Pharmacy 693N), 693P (or Pharmacy 693P), 694C (or Pharmacy 694C), 694E (or Pharmacy 694E), 694S (or Pharmacy 694S), or 695E (or Pharmacy 695E).

#### **PHM 193U. Foundations for Interprofessional Collaborative Practice V.**

Restricted to students in the College of Pharmacy. Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team. One lecture hour per week and six interprofessional sessions for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 192V.

#### **PHM 193V. Foundations for Interprofessional Collaborative Practice VI.**

Restricted to students in the College of Pharmacy. Introduces and reinforces interprofessional education core competencies delivered through classroom-based interactive sessions, simulations, field-based immersive experiences, and experiential learning with students and members of other professions. Imparts the foundational knowledge and skills necessary for the delivery of quality and safe patient-centered and population-oriented care as a contributing member of a healthcare team. One lecture hour per week and six interprofessional sessions for one semester. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 193U.

#### **PHM 693W. Elective International Pharmacy Experience.**

Competitive placement for an international advanced pharmacy experience. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Pharmacy 693W and Pharmacy PharmD 693W may not both be counted. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

#### **PHM 694C. Inpatient General Medicine Pharmacy Practice.**

Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in the context of acute patient care. Forty

laboratory hours a week for at least six weeks, with additional hours to be arranged. Pharmacy 694C and Pharmacy PharmD 694C may not both be counted. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy; during the fall and spring semesters, concurrent enrollment in two of the following: Pharmacy PharmD 693C (or Pharmacy 693C), 693E (or Pharmacy 693E), 693N (or Pharmacy 693N), 693P (or Pharmacy 693P), 693S (or Pharmacy 693S), 694E (or Pharmacy 694E), 694S (or Pharmacy 694S), or 695E (or Pharmacy 695E).

#### **PHM 694E. Elective in Pharmacy Practice II.**

Experience in pharmacy practice, research, or administration. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Pharmacy 694E and Pharmacy PharmD 694E may not both be counted. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy; during the fall and spring semesters, concurrent enrollment in two of the following: Pharmacy PharmD 693C (or Pharmacy 693C), 693E (or Pharmacy 693E), 693N (or Pharmacy 693N), 693P (or Pharmacy 693P), 693S (or Pharmacy 693S), 694C (or Pharmacy 694C), 694S (or Pharmacy 694S), or 695E (or Pharmacy 695E).

#### **PHM 394F. Pharmacoeconomics.**

Terms, concepts, procedures, methods, problems, and strengths associated with pharmacoeconomics. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 394F, Pharmacy Graduate Studies 393T, Pharmacy PharmD 393F, 394F. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 384L (or Pharmacy 364D) or consent of instructor.

#### **PHM 694R. Supplemental Rotation in Pharmacy Practice II.**

Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in the context of patient care. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy.

#### **PHM 694S. Selective in Pharmacy Practice II.**

Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens in selected pharmacy practice environments. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Pharmacy 694S and Pharmacy PharmD 694S may not both be counted. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth professional year in the College of Pharmacy; during the fall and spring semesters, concurrent enrollment in two of the following: Pharmacy PharmD 693C (or Pharmacy 693C), 693E (or Pharmacy 693E), 693N (or Pharmacy 693N), 693P (or Pharmacy 693P), 693S (or Pharmacy 693S), 694C (or Pharmacy 694C), 694E (or Pharmacy 694E), or 695E (or Pharmacy 695E).

#### **PHM 695E. Elective in Pharmacy Practice III.**

Experience in pharmacy practice, research, or administration. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Pharmacy 695E and Pharmacy PharmD 695E may not both be counted. Offered on the pass/fail basis only. Prerequisite: Current intern registration with the Texas State Board of Pharmacy and completion of all didactic and laboratory coursework prior to the fourth

professional year in the College of Pharmacy; during the fall and spring semesters, concurrent enrollment in two of the following: Pharmacy PharmD 693C (or Pharmacy 693C), 693E (or Pharmacy 693E), 693N (or Pharmacy 693N), 693P (or Pharmacy 693P), 693S (or Pharmacy 693S), 694C (or Pharmacy 694C), 694E (or Pharmacy 694E) or 694S (or Pharmacy 694S).

#### **PHM 195P. Drug Information and Evidence-Based Practice Laboratory.**

Practical application of the concepts presented in Pharmacy 195Q. Includes assignments, projects, and oral presentations. Three laboratory hours a week for one semester. Pharmacy 163P and Pharmacy PharmD 195P may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit or registration for Pharmacy PharmD 282E (or Pharmacy 262D), 195Q (or Pharmacy 163C), and 685D (or Pharmacy 665E).

#### **PHM 195Q, 295Q. Drug Information and Evidence-Based Practice.**

Knowledge and skills needed to retrieve and interpret drug information. Interpretation of biomedical literature and an introduction to concepts of evidence-based practice. For each semester hour of credit earned, one lecture hour a week for one semester. Pharmacy PharmD 195Q and Pharmacy 163D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 187G or 287D (or Pharmacy 242D)

#### **PHM 295R. Advanced Evidence-Based Practice.**

Research methodology and biostatistical concepts as they relate to the interpretation and critical evaluation of biomedical literature. Designed to build upon the material covered in Pharmacy PharmD 195Q. Two lecture hours a week for one semester. Pharmacy 295R and Pharmacy PharmD 295R may not both be counted. Offered on the letter-grade basis only. Prerequisite: Pharmacy PharmD 195Q (or Pharmacy 163C), 195P (or Pharmacy 163P), 185P (or Pharmacy 185P), 685F (or Pharmacy 695F), and 385G (or Pharmacy 395G).

#### **PHM 398T. College Teaching Methodology.**

Interdisciplinary course intended to provide a foundation of theoretical and practical knowledge relating to teaching at the postsecondary level. Subjects include instructional methods, instructional design, practice teaching, teaching philosophy, instructional technology, and assessment of learning. Includes class discussions and individual consultations. Three lecture hours a week for one semester. Only one of the following may be counted: Pharmacy 368T, Pharmacy Graduate Studies 398T, Pharmacy PharmD 398T. Offered on the letter-grade basis only. Prerequisite: Completion of the second professional year in the College of Pharmacy, or consent of instructor.

## **Philosophy Courses**

### **Philosophy: PHL**

#### **Lower-Division Courses**

##### **PHL 301 (TCCN: PHIL 1301). Introduction to Philosophy.**

Primarily for lower-division students. A survey of principal topics and problems in areas such as ethics, theory of knowledge, and philosophy of religion. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Philosophy 301 and 610QA may not both be counted.

##### **PHL 301K (TCCN: PHIL 2316). Ancient Philosophy.**

Same as Classical Civilization 304C (Topic 6). Primarily for lower-division students. An introduction to the philosophical achievements of the

ancient world, concentrating on Plato and Aristotle. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Classical Civilization 304C (Topic: Ancient Philosophy), 304C (Topic 6), Philosophy 301K.

### **PHL 301L. Early Modern Philosophy.**

Primarily for lower-division students. An introduction to the philosophical achievements of the seventeenth and eighteenth centuries, concentrating on such figures as Descartes, Hume, and Kant. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

### **PHL 302. World Philosophy.**

Primarily for lower-division students. Basic issues of philosophy in Western and non-Western traditions, such as the nature of philosophy, its relation to religion and science, the self, knowledge, and virtue. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

### **PHL 302C. Ethics and Enlightenment.**

Primarily for lower-division students. A study of non-Western ethics, especially in Hindu and Buddhist traditions. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

### **PHL 303. Human Nature.**

Primarily for lower-division students. Theories of human nature, such as those of Plato, Christianity, Marxism, and existentialism. Modern psychological and biological theories are included, as the interplay of nature and nurture in determining human conduct is explored. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

### **PHL 303M. Mind and Body.**

Primarily for lower-division students. Introduction to philosophical issues about the nature of mind and its relation to body: What is mind? Do people have free will? How does psychology relate to neuroscience? Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

### **PHL 304. Contemporary Moral Problems.**

Primarily for lower-division students. Philosophical examination of selected moral problems arising out of contemporary society and culture. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

### **PHL 305 (TCCN: PHIL 2321). Introduction to the Philosophy of Religion.**

Same as Core Texts and Ideas 310 (Topic 3) and Religious Studies 305. A critical examination of various conceptions of God and of the relationship of the human and the divine. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 310 (Topic: Introduction to the Philosophy of Religion), 310 (Topic 3), Philosophy 305, Religious Studies 305.

### **PHL 306. Philosophical Thinkers.**

Primarily for lower-division students. An introduction to major areas of philosophy through the study of selected philosophical thinkers. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May be repeated for credit when the topics vary.

### **PHL 310. Knowledge and Reality.**

An introduction to basic issues in epistemology and metaphysics. Three lecture hours or two lecture hours and one laboratory/discussion hour

a week for one semester. Philosophy 310 and 610QA may not both be counted.

### **PHL 610Q. Problems of Knowledge and Valuation.**

Restricted to students in the Plan II Honors Program. Methods and aims of selected sciences, arts, and philosophy in the attainment of knowledge and in providing the basis for valuation. Three lecture hours and one discussion hour a week for two semesters. Philosophy 301 and 610QA may not both be counted; Philosophy 310 and 610QA may not both be counted; Philosophy 610QB and 318 may not both be counted. Prerequisite: For 610QA, admission to the Plan II Honors Program; for 610QB, Philosophy 610QA.

### **PHL 311. Argument.**

Argument as a kind of discourse: deductive and inductive arguments; principles of reasoning; fallacies; practical applications. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

### **PHL 312 (TCCN: PHIL 2303). Introduction to Logic.**

Logical structure of sentences and arguments; elementary symbolic methods; applications. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May not be counted by students with prior credit for Philosophy 313, 313K, 313Q, or 344K.

### **PHL 313. Introductory Symbolic Logic.**

Introduction to symbolic logic (through first-order predicate logic); interpretations; formal proofs, consistency; some practical applications. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Philosophy 313, 313K, 313Q.

### **PHL 313K. Logic, Sets, and Functions.**

Sets, relations, functions, sentential and predicate logic, proof techniques, algorithms, and elementary metatheory. Mathematically oriented. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Philosophy 313, 313K, 313Q.

### **PHL 313Q. Logic and Scientific Reasoning.**

Introduction to formal proofs, semantics, quantifiers, inductive methods, decision theory, and scientific reasoning. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Philosophy 313, 313K, 313Q. Philosophy 313Q and Tutorial Course 310 may not both be counted. Prerequisite: Admission to the Plan II Honors Program.

### **PHL 315F. Philosophy and Film.**

Formulation, analysis, and criticism of philosophical ideas in selected films. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

### **PHL 315L. Philosophy and Literature.**

Formulation, analysis, and criticism of philosophical ideas in selected works of literature. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

### **PHL 316K. Science and Philosophy.**

Introduction to scientific method, including discussion of the nature and goals of science. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May not be counted by students with credit for Philosophy 363.

### **PHL 317K. Introduction to the Philosophy of the Arts.**

Classic issues in the philosophy of art and beauty, illustrated from the fine arts and contemporary media: literature, drama, music, painting,

film, and television. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

### **PHL 318 (TCCN: PHIL 2306). Introduction to Ethics.**

Study of basic principles of the moral life, with critical examination of traditional and contemporary theories of the nature of goodness, happiness, duty, and freedom. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Philosophy 610QB and 318 may not both be counted.

### **PHL 318K (TCCN: PHIL 2307). Introduction to Political Philosophy.**

Views of major political philosophers on humanity, nature, and society; discussions of contemporary political ideologies. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

### **PHL 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Philosophy.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Philosophy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **PHL 321K. Theory of Knowledge.**

Systematic and detailed study of major issues in the theory of knowledge, such as the distinction between knowledge and belief, the criteria of knowledge, the justification of knowledge-claims, and perception. Three lecture hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

### **PHL 322. Science and the Modern World.**

The historical development and impact of scientific ideas through the modern period to the present. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

### **PHL 322K. History of Ethics.**

Survey of ethical theories from ancient times through the nineteenth century. Three lecture hours a week for one semester. Prerequisite: At least three semester hours of coursework in philosophy.

### **PHL 323K. Metaphysics.**

Problems of substance, change, categories of being, mind, body, space and time, approached either systematically or historically. Three lecture hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

### **PHL 323M. Philosophy of Mind.**

Problems concerning the nature of mind and mental phenomena: the relation between mind and body, knowledge of other minds, the computational model of mind, mental causation, intentionality, and consciousness. Three lecture hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

### **PHL 323S. Philosophy of Science.**

Examine philosophical issues pertaining to science, with an emphasis on the metaphysics and epistemology of science. Three lecture hours a week for one semester. Philosophy 323S and Philosophy 363L (Topic: Philosophy of Science) may not both be counted. Prerequisite: Upper-division standing and six semester hours of coursework in philosophy.

### **PHL 325D. Environmental Ethics and Philosophy.**

Examine moral issues concerning the relation of human beings to the environment, including biodiversity, resource depletion, and animal rights. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Philosophy 325C and 325D may not both be counted.

### **PHL 325E. Biomedical Ethics.**

Apply ethics to problems of medical practice and theory including abortion, euthanasia, sterilization, psychosurgery, genetic engineering, and concepts of health, cure, insanity, and death. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Philosophy 325E and 325M may not both be counted. Prerequisite: Upper-division standing.

### **PHL 325J. Health and Justice.**

Same as Health and Society 341. Examines ethical, political, and legal issues surrounding medicine, society, and healthcare. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Philosophy 325J, 365 (Topic: Health and Justice), Health and Society 341. Prerequisite: Upper-division standing.

### **PHL 325K. Ethical Theories.**

Major traditional and contemporary ethical theories discussed and critically examined. Three lecture hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

### **PHL 325L. Business, Ethics, and Public Policy.**

Issues in ethics and politics that are relevant to the organization of business and industry and the distribution of power in society; topics include the role of industry; concepts of profit, property, and moral responsibility. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

### **PHL 325M. Medicine, Ethics, and Society.**

Examine moral, legal, and socio-political implications of developments in the biomedical sciences. Explore health and disease, function and normalcy, evidence-based practice, gene editing and cloning, genetic testing, screening, and counseling, public health and compulsory vaccination. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Philosophy 325E and 325M may not both be counted.

### **PHL 325N. Organizational Ethics.**

Same as Human Dimensions of Organizations 325N. Examine the practical and theoretical aspects of ethical issues in organizations, including philosophical, psychological, anthropological, and strategic approaches. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Human Dimensions of Organizations 325N, Philosophy 325N, 365 (Topic: Organizational Ethics). Prerequisite: Upper-division standing.

### **PHL 328. Nineteenth-Century Philosophy.**

Major figures in nineteenth-century European philosophy, including Hegel, Schopenhauer, Kierkegaard, Nietzsche, and Mill. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **PHL 329C. Plato and His Philosophy.**

Same as Classical Civilization 348E. Intensive study of selected works by Plato. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Plato), 348E, Philosophy 329C, 329M (Topic: Plato). Prerequisite: Upper-division standing.

**PHL 329F. Squaring the Vienna Circle.**

Same as Comparative Literature 323 (Topic 18), European Studies 347 (Topic 20), and German, Scandinavian, and Dutch Studies 361F. Traces the origin of the Vienna Circle of Logical Empiricism in nineteenth-century Europe, and introduces central texts and problems of intellectual history and historical epistemology at the roots of today's analytic philosophy. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Squaring the Vienna Circle), 323 (Topic 18), European Studies 347 (Topic: Squaring the Vienna Circle), 347 (Topic 20), German, Scandinavian, and Dutch Studies 361F, Germanic Civilization 362E (Topic: Squaring the Vienna Circle), Philosophy 327 (Topic: Squaring the Vienna Circle), 329F, 354 (Topic: Squaring the Vienna Circle). Prerequisite: Upper-division standing.

**PHL 329K. History of Ancient Philosophy.**

Same as Classical Civilization 348 (Topic 4). Development of Western philosophy from the pre-Socratics to the early Christian era; emphasis on Plato and Aristotle. Three lecture hours and one discussion hour a week for one semester. Classical Civilization 348 (Topic 4) and Philosophy 329K may not both be counted. Prerequisite: Six semester hours of coursework in philosophy.

**PHL 329L. Early Modern Philosophy: Descartes to Kant.**

Three lecture hours and one discussion hour a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

**PHL 329P. Kant's Critique of Pure Reason.**

An intensive study of Kant's Critique of Pure Reason, focusing especially on his "Copernican Revolution," his theories of categories and concepts, and his rejection of metaphysics. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Philosophy 329M (Topic 1) and 329P may not both be counted. Prerequisite: Upper-division standing and at least three semester hours of coursework in philosophy.

**PHL 129S, 229S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Philosophy.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Philosophy. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**PHL 329U. Perspectives on Science and Mathematics.**

An examination of five notable episodes in the history of science: Galileo's conflict with the Catholic Church, Isaac Newton's formulation of the laws of motion, Charles Darwin's proposal of the theory of evolution by natural selection, the development of the atomic bomb, and the discovery of the double helix structure of DNA. Three lecture hours a week for one semester. Only one of the following may be counted: History 329U, 366N (Topic: Perspectives on Science and Mathematics), Philosophy 329U. Prerequisite: Upper-division standing and consent of instructor.

**PHL 332. Philosophy of Language.**

Contemporary theories of meaning and linguistic structure, and their relationships to epistemology, metaphysics, and ethics. Three lecture hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

**PHL 332M. Interpretation and Meaning.**

Examine issues concerning the nature of communication, interpretation, and meaning. Three lecture hours or two lecture hours and one

discussion hour a week for one semester. Only one of the following may be counted: Philosophy 327 (Topic: Interpretation and Meaning), 327 (Topic 4), 332M. Prerequisite: Upper-division standing.

**PHL 334M. Martin Heidegger.**

Examine the work of Martin Heidegger, focusing especially on his views concerning truth, art, history, humanism, and technology. Three lecture hours a week for one semester. Philosophy 334K (Topic: Martin Heidegger) and 334M may not both be counted. Prerequisite: Upper-division standing and six semester hours of coursework in Philosophy.

**PHL 342. Political Philosophy.**

Critical examination of leading theories of the state, including analysis of such concepts as sovereignty, obligation, rights, and freedom. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Natural Law Theory.** Same as Government 335D. Study of the fundamental moral principles that are built into the design of human nature and lie at the roots of conscience. Three lecture hours a week for one semester. Only one of the following may be counted: Government 335D, 335M (Topic: Natural Law Theory), 335M (Topic 12), and Philosophy 342 (Topic: Natural Law Theory), Philosophy 342 (Topic 1). Additional prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**PHL 342L. Origins of Liberalism.**

Same as Core Texts and Ideas 331. Examine the theory of liberal democracy through a study of its development in historical, religious, and political contexts. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 331, 335 (Topic: Origins of Liberalism), 335 (Topic 4), European Studies 346 (Topic: Origins of Liberalism), Philosophy 342L, 354 (Topic: Origins of Liberalism), 354 (Topic 5). Prerequisite: Upper-division standing.

**PHL 342M. Marx and Marxist Theory.**

Same as Core Texts and Ideas 335M, European Studies 346 (Topic 30), and History 332R. Introduction to the writings of Karl Marx as well as to those of his intellectual successors in Europe and around the globe in the nineteenth and twentieth centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Marx and Western Marxism), 335M, European Studies 346 (Topic: Marx and Western Marxism), 346 (Topic 30), History 332R, 362G (Topic: Marx and Western Marxism), Philosophy 334K (Topic: Marx and Western Marxism), 342M. Prerequisite: Upper-division standing.

**PHL 342P. Four Modern Political Theories.**

Examine four modern political theories (classical liberalism, Marxism, social democracy, and traditional conservatism), with close reading and analysis of central texts. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Philosophy 342 (Topic: Four Mdrn Politi Philosophy) and 342P may not both be counted. Prerequisite: Upper-division standing.

**PHL 342R. Philosophy of Race and Gender.**

Examine philosophical issues pertaining to race and gender. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Philosophy 327 (Topic: Philosophy of Race and Gender) and Philosophy 342R may not both be counted. Prerequisite: Upper-division standing.

**PHL 344K. Intermediate Symbolic Logic.**

Same as Mathematics 344K. A second-semester course in symbolic logic: formal syntax and semantics, basic metatheory (soundness,

completeness, compactness, and Loewenheim-Skolem theorems), and further topics in logic. Three lecture hours a week for one semester. Prerequisite: Philosophy 313, 313K, or 313Q.

### **PHL 344M. Philosophy of Mathematics.**

Philosophical issues concerning mathematics and its foundations, such as the correlation of mathematics to logic, mathematical truth, and mathematical knowledge. Three lecture hours a week for one semester.

### **PHL 346K. Aesthetics.**

The nature and purpose of art and the aesthetic experience. Three lecture hours a week for one semester. Philosophy 346 and 346K may not both be counted.

### **PHL 347. Philosophy of Law.**

The significance and function of law in political and ethical contexts; comparison of common and statutory to scientific and moral law; readings from among Plato, Kant, Hegel, Bentham, Austin, Hart, Dworkin, Feinberg, and others. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

### **PHL 349. History of Medieval and Renaissance Philosophy.**

Philosophical thought from Augustine through Cusanus and Vico, with emphasis on its cultural bearing. Three lecture hours a week for one semester. Prerequisite: Three semester hours of coursework in philosophy.

### **PHL 356C. Contemporary Christian Philosophy.**

Study of recent work in philosophy written from a Christian point of view or that examines philosophical questions that arise within the framework of the Christian faith. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Philosophy 327 (Topic: Contemporary Christian Philosophy), 327 (Topic: 2), 356C. Prerequisite: Upper-division standing.

### **PHL 356D. History of Christian Philosophy.**

Same as Core Texts and Ideas 335C. Examines the history of Christian philosophy through classic Christian thought, concerning what can be known and how people should live. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: History of Christian Philosophy), 335 (Topic 2), 335C, Philosophy 354 (Topic: History of Christian Philosophy), 354 (Topic 2), 356D. Prerequisite: Upper-division standing.

### **PHL 358. Philosophical Logic.**

Issues in philosophical logic and its applications, such as theories of meaning, logical paradoxes, epistemic logic, deontic logic, modal logic, existence, and identity. Three lecture hours a week for one semester. Prerequisite: Philosophy 313, 313K, or 313Q.

### **PHL 361K. Philosophy in Literature.**

Formulation, analysis, and criticism of philosophical ideas in selected literary works. Three lecture hours a week for one semester.

### **PHL 363. Scientific Method.**

History, exposition, and analysis of such fundamental concepts in the natural and social sciences as explanation, prediction, discovery, confirmation, laws, hypotheses, theories. Three lecture hours a week for one semester.

### **PHL 363L. Topics in Philosophy of Science.**

Three lecture hours or two lecture hours and one discussion hour a week for one semester. Additional hours may be required for some topics. May

be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: The Philosophy of Biology.** Philosophy 363L (Topic 1) and 363L (Topic: Philosophy of Biology) may not both be counted.

**Topic 2: The Outer Limits of Reason.** Examines fundamental questions that appear to transcend the capacities of reason such as semantic paradoxes, theseus' ship, vagueness, infinities, computational intractability, quantum mechanics, fine-tuning arguments, and why mathematics applies to the physical world. Three lecture hours a week for one semester. Philosophy 363L (Topic: Outer Limits of Reason) and 363L (Topic 2) may not both be counted.

**Topic 3: Science and Metaphysics.** Examine questions about the nature of reality informed by science and metaphysics, such as the nature of time, space, minds, meanings, identity, infinity, abstract vs concrete objects. Philosophy 363L (Topic: Science and Metaphysics) and 363L (Topic 3) may not both be counted. Additional prerequisite: Upper-division standing.

### **PHL 365. Selected Problems in Philosophy.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 2: Introduction to Cognitive Science.** Same as Cognitive Science 360 (Topic 1) and Linguistics 373P. Three lecture hours a week for one semester. Only one of the following may be counted: Cognitive Science 360 (Topic 1), Linguistics 373 (Topic 7), 373P, Philosophy 365 (Topic 2). Additional prerequisite: Upper-division standing.

**Topic 6: Process Philosophy and Pragmatism.** Philosophy 365 (Topic: Process Philosophy and Pragmatism) and 365 (Topic 6) may not both be counted. Additional prerequisite: Upper-division standing.

### **PHL 366K. Existentialism.**

Existentialism and its relationship to literature, psychoanalysis, and Marxism. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

### **PHL 375M. Major Seminar.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in philosophy.

**Topic 1: Philosophy and Feminism.** Only one of the following may be counted: Philosophy 327 (Topic: Philosophy and Feminism), 375M (Topic: Philosophy and Feminism), 375M (Topic 1), Women's and Gender Studies 345 (Topic: Philosophy and Feminism).

**Topic 2: Philosophy of David Hume.** Examine David Hume's contributions to Philosophy holistically: metaphysics, knowledge, morality and religion. Explore the systematic nature of his thought, as applied to specific problems including causation, induction, moral belief, and the existence of God. Philosophy 375M (Topic: Philosophy of David Hume) and 375M (Topic 2) may not both be counted.

**Topic 3: Wittgenstein.** Examine the later philosophy of Ludwig Wittgenstein in the context of the development of analytic philosophy in the early twentieth century. Philosophy 375M (Topic: Wittgenstein) and 375M (Topic 3) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 4: Philosophy of the First Amendment.** Examine the philosophical principles beneath the several freedoms protected by the First Amendment of the United States Constitution, as well as the applications of those freedoms (speech, religion, press, assembly, and petition) to concrete legal disputes. Philosophy 375M (Topic: Philos of the First Amndmnt) and 375M (Topic 4) may not both be counted.

**Topic 5: Major Ethical Theories.** Examine selected major works in ethical theory from ancient and modern philosophy. Explicate the

argumentative structure of the texts, situate them in their historical contexts, and consider their significance for contemporary moral thought. Additional prerequisite: Upper-division standing.

#### **PHL 679H. Honors Tutorial Course.**

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper on a special topic in philosophy, to be completed during the second semester. Conference course for two semesters. Prerequisite: For 679HA, admission to the Philosophy Honors Program; for 679HB, Philosophy 679HA.

#### **PHL 379K. Conference Course.**

Intensive tutorial study of selected problems in philosophy. Conference course. May be repeated for credit. Prerequisite: Nine semester hours of upper-division coursework in philosophy and consent of instructor and the undergraduate adviser in philosophy.

### **Graduate Courses**

#### **PHL 380. Contemporary Philosophy.**

Past topics include pragmatism; postmodernism; contemporary Marxism; critical theory. Three hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 381. History of Philosophy.**

Past topics include major figures and movements in ancient, medieval, early modern, and nineteenth- and twentieth-century philosophy. Three hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 382. Metaphysics.**

Past topics include basic issues in metaphysics; particulars and universals; identity and individuation; realism and antirealism; mind-body issues. Three hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 383. Theory of Knowledge.**

Past topics include basic issues in epistemology; theories of belief and rationality; justification and truth. Three hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 383C. Introduction to Cognitive Science.**

Same as Cognitive Science 380 (Topic 1: Introduction to Cognitive Science), Linguistics 392 (Topic 1: Introduction to Cognitive Science), and Psychology 394U (Topic 3: Introduction to Cognitive Science). Three lecture hours a week for one semester. Only one of the following may be counted: Cognitive Science 380 (Topic 1), Linguistics 392 (Topic 1), 393 (Topic: Introduction to Cognitive Science), 393 (Topic: Topics in Cognitive Science), Philosophy 383 (Topic: Introduction to Cognitive Science), 383C, Psychology 394U (Topic 3). Prerequisite: Graduate standing.

#### **PHL 384F. First-Year Seminar.**

Central problems in philosophy. Three lecture hours a week for one semester. Prerequisite: Graduate standing in philosophy, or graduate standing and consent of the graduate adviser.

#### **PHL 384K. The Analytic Tradition.**

A selective examination of works by major figures such as Frege, Moore, Russell, and Wittgenstein. Three hours a week for one semester. Prerequisite: Graduate standing.

#### **PHL 385. Theory of Value.**

Past topics include basic issues in value theory; the objectivity of value; literature and philosophy; philosophy of art; literary criticism. Three hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 386. Philosophy of Science.**

Past topics include basic issues in the philosophy of science; theories and explanations; philosophy of quantum mechanics; philosophy of the social sciences. Three hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 387. Ethical, Political, and Legal Philosophy.**

Past topics include contemporary ethical theory; theories of justice; philosophy of law; social contract theories; political philosophy. Three hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 188, 388. Conference Course.**

Mainly a reading course in the works of classical and modern philosophers. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 388C. Prospectus Course.**

Mainly a reading course for development of a dissertation prospectus. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 389. Logic.**

Rigorous definitions of syntax and semantics. Proofs of soundness and completeness of sentential and predicate logics; other topics in metatheory. May include extensions of and alternatives to classical logic. Philosophical significance of logic and metalogical results. Three hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 391. Logic and Philosophy.**

Past topics include identity and substitutivity; philosophy of logic; discourse representation. Three hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 394K. Philosophy of Language.**

Same as Linguistics 394K. Three lecture hours a week for one semester. Only one of the following may be counted: Linguistics 393S (Topic: Philosophy of Language), 394K, Philosophy 391 (Topic: Philosophy of Language), 394K. Prerequisite: Graduate standing and consent of instructor.

#### **PHL 396W. Dissertation Seminar.**

Restricted to doctoral students in philosophy. Intensive examination of selected dissertation topics: attention to research methods, presentation, structure, and argument. Student reports on current research. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **PHL 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate

standing in philosophy, twelve semester hours of upper-division or graduate coursework in philosophy, and consent of the graduate adviser; for 698B, Philosophy 698A.

### **PHL 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in philosophy and consent of the graduate adviser.

### **PHL 398T. Supervised Teaching in Philosophy.**

Teaching experience developed through an apprentice relationship between student and faculty member. Three hours a week for one semester. Students may register for this course as many as four times, but only three semester hours of credit in this course may be applied toward a graduate degree. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **PHL 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Physical Education Courses**

## **Physical Education: PED**

### **Lower-Division Courses**

#### **PED 101J. Swimming.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Swimming I.** For nonswimmers. Elementary physical and mental adjustments, four basic strokes, water safety.

**Topic 2: Beginning Swimming II.** For well-adjusted but weak swimmers. Five basic strokes, elementary diving, water safety.

**Topic 3: Intermediate Swimming.** For the average swimmer. Six power strokes, diving, water safety, introduction to conditioning.

**Topic 5: Stroke Technique and Fitness Swimming.**

#### **PED 102G. Skin Diving and Scuba Diving.**

Training in underwater safety, skin and scuba skills, care of equipment. Culminates in PADI certification. Three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Advanced-level swimming skills. Strong swimming and survival skills required.

**Topic 1: Basic Scuba Diving.** Classroom, pool, and open water training with emphasis on underwater safety, the skills of skin and scuba diving, equipment, the underwater environment, planning for a dive. Culminates in nationally recognized certification.

**Topic 2: Intermediate Scuba Diving.** Open to divers with Basic Certification. Classroom, pool, and open water training with emphasis on navigation, air consumption, emergency procedures, night dives. Culminates in nationally recognized certification.

**Topic 3: Advanced Scuba Diving.** Open to experienced divers with Intermediate Certification. Classroom, pool, and open water training with emphasis on deep dives, mapping, search and research diving, equipment rescue work. Culminates in nationally recognized certification.

#### **PED 103L. Social Dance.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Beginning Social Dance: Leads.** Introduction to popular social partner dances, including swing, waltz, two-step, salsa, tango and more. Emphasis on connecting with a dance partner and the art of leading and following. Only one of the following may be counted: Kinesiology 119 (Topic 16), Kinesiology 119 (Topic 20), Physical Education 103L (Topic 1), 103L (Topic 7).

**Topic 2: Intermediate Social Dance.** An intermediate survey of popular social dances. Includes more complex partnering and variations in familiar and new dance styles. Only one of the following may be counted: Physical Education 103L (Topic 2), 103L (Topic 4), 103L (Topic 8). Additional prerequisite: Kinesiology 119 (Topic 16) or Physical Education 103L (Topic 1).

**Topic 3: Advanced Social Dance.** An advanced survey of popular social partner dances. Includes advanced partnering, role reversal, and an emphasis on creativity and style. Only one of the following may be counted: Physical Education 103L (Topic 3), 103L (Topic 5), 103L (Topic 6). Additional prerequisite: Physical Education 103L (Topic 2), and audition on first class meeting.

**Topic 4: Intermediate Social Dance: Follows.** An intermediate survey of popular social dances. Includes more complex partnering and variations in familiar and new dance styles. Only one of the following may be counted: Physical Education 103L (Topic 2), 103L (Topic 4), 103L (Topic 8).

**Topic 5: Advanced Social Dance: Leads.** An advanced survey of popular social partner dances. Includes advanced partnering, role reversal, and an emphasis on creativity and style. Only one of the following may be counted: Physical Education 103L (Topic 3), 103L (Topic 5), 103L (Topic 6). Additional prerequisite: Physical Education 103L (Topic 8), and audition on first class meeting.

**Topic 6: Advanced Social Dance: Follows.** An advanced survey of popular social partner dances. Includes advanced partnering, role reversal, and an emphasis on creativity and style. Only one of the following may be counted: Physical Education 103L (Topic 3), 103L (Topic 5), 103L (Topic 6). Additional prerequisite: Physical Education 103L (Topic 4), and audition on first class meeting.

**Topic 7: Beginning Social Dance: Follows.** Introduction to popular social dances, including swing, waltz, two-step, salsa, tango, and more. Emphasis on connecting with a dance partner and the art of leading and following. Only one of the following may be counted: Kinesiology 119 (Topic 16), Kinesiology 119 (Topic 20), Physical Education 103L (Topic 1), 103L (Topic 7).

**Topic 8: Intermediate Social Dance: Leads.** An intermediate survey of popular social partner dances. Includes advanced partnering, role reversal, and an emphasis on creativity and style. Only one of the following may be counted: Physical Education 103L (Topic 2), 103L (Topic 4), 103L (Topic 8). Additional prerequisite: Physical Education 103L (Topic 1) and audition on first class meeting.

#### **PED 104P. Tennis.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Tennis.** For the nonplayer.

**Topic 2: Advanced Beginning Tennis.** For players with weak strokes and serves.

**Topic 3: Intermediate Tennis.** Additional prerequisite: Physical Education 104P (Topic 1) or consent of instructor.

**Topic 4: Advanced Intermediate Tennis.** Additional prerequisite: Physical Education 104P (Topic 1) or consent of instructor.

**Topic 5: Advanced Tennis.** Additional prerequisite: Physical Education 104P (Topic 1) or consent of instructor.

#### **PED 104R. Racquetball.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Racquetball.** For the nonplayer.

**Topic 2: Intermediate Racquetball.** Additional prerequisite: Credit for Physical Education 104R (Topic 1) or consent of instructor.

**Topic 3: Advanced Racquetball.** Additional prerequisite: Credit for Physical Education 104R (Topic 2) or consent of instructor.

### **PED 105C. Handball.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Handball.** For the nonplayer.

**Topic 2: Intermediate Handball.** Additional prerequisite: Physical Education 105C (Topic 1) or consent of instructor.

**Topic 3: Advanced Handball.** Additional prerequisite: Physical Education 105C (Topic 2) or consent of instructor.

**Topic 4: Handball Doubles.** Additional prerequisite: Physical Education 105C or consent of instructor.

### **PED 105M. Fencing.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Fencing: Foil.**

**Topic 2: Beginning Fencing: Epee.**

**Topic 3: Intermediate Fencing: Foil.** Prerequisite: Physical Education 105M (Topic 1).

**Topic 4: Intermediate Fencing: Epee.** Prerequisite: Physical Education 105M (Topic 2).

**Topic 5: Intermediate Fencing: Saber.** Prerequisite: Physical Education 105M (Topic 1).

**Topic 6: Advanced Fencing: Foil.** Prerequisite: Any intermediate-level fencing course.

### **PED 105R. Karate/Tae Kwon Do.**

Includes self-defense. Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Karate/Tae Kwon Do.** Prerequisite: No experience required.

**Topic 2: Intermediate Karate/Tae Kwon Do.** Additional prerequisite: Karate/Taekwondo experience.

**Topic 3: Advanced Karate/Tae Kwon Do.** Additional prerequisite: Karate/Taekwondo experience.

### **PED 105T. Judo.**

Includes self-defense. Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Judo.** Prerequisite: No experience required.

**Topic 2: Intermediate Judo.** Prerequisite: Judo experience.

**Topic 3: Advanced Judo.** Additional prerequisite: Previous judo experience.

### **PED 105U. Beginning Hapkido/Self-Defense.**

Three laboratory hours a week for one semester. Physical Education 105T (Topic: Beginning Hapkido/Self-Defense) and 105U may not both be counted.

### **PED 106C. Conditioning.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Swim Conditioning.** Additional prerequisite: Comfortable in deep water and able to swim 50 yards.

**Topic 2: Cardiovascular and Weight Training.**

**Topic 3: Aerobic Walking.**

**Topic 4: Aerobics.**

**Topic 5: Body Works.** Step training with emphasis on muscular/strength endurance work, and inclusion of yoga and pilates. Combines aerobic conditioning with muscular work for a shorter, more intense aerobic segment followed by a challenging muscular workout for the trunk and upper and lower body. Designed to improve body composition, aerobic capacity, muscular endurance, muscular strength, and overall flexibility.

**Topic 6: Circuit Aerobics.**

**Topic 7: Weight Training.**

**Topic 10: Intermediate Yoga.** Examine principles of alignment that make challenging poses accessible. Explore meditation and breathing techniques in-depth, as well as the body-mind-breath connection, the physical form, postures of yoga, breath-control, and mindfulness. Additional prerequisite: Physical Education 106C (Topic 9).

**Topic 11: Advanced Yoga.** Examine sequencing, transitions, and advanced variations of poses. Explore the body-mind-breath connection further. Additional prerequisite: Physical Education 106C (Topic 10).

**Topic 12: Beginning Yoga.** Explore the principles and benefits of mind-body fitness through the lens of yoga and examine the relationship between exercise, health, and wellness. Discover a yogic approach to cardio and strength training exercises through hatha and vinyasa styles of yoga, as well as mental focus and breathing techniques. Explore aerobic capacity, muscular endurance, muscular strength, mental focus, and overall flexibility. Physical Education 106C (Topic 9) and 106C (Topic 12) may not both be counted.

### **PED 106D. Running.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Beginning Running.**

**Topic 2: Intermediate Running.**

**Topic 3: Advanced Running.**

### **PED 107C. Archery.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Archery.** Basic form.

**Topic 2: Intermediate Archery.** Bow mechanics and competition. Prerequisite: Archery experience.

**Topic 3: Intermediate Field Archery.** Prerequisite: Archery experience.

**Topic 4: Advanced Archery.** Tournament shooting and psychology of competition. Prerequisite: Intermediate-level archery skills or 225 FITA average.

### **PED 107D. Golf.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Golf.**

**Topic 2: Intermediate Golf.** Additional prerequisite: One semester of beginning golf or an eighteen hole scoring average of seventy five to ninety.

**Topic 3: Beginning Golf II.** Physical Education 107D (Topic: Beginning Golf II) and 107D (Topic 3) may not both be counted. Additional prerequisite: Physical Education 107D (Topic 1).

### **PED 107L. Gymnastics.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Tumbling and Trampoline.**

**Topic 2: Intermediate Tumbling and Trampoline.** Prerequisite: Tumbling and trampoline experience.

**Topic 3: Rhythmic Gymnastics.** Combination of gymnastics and dance movements performed to music using the hand apparatus of balls, hoops, ribbons, or ropes.

**Topic 4: Beginning Gymnastics I.** Apparatus work in either men's or women's Olympic gymnastics events.

**Topic 5: Beginning Gymnastics II.** Apparatus work in either men's or women's Olympic gymnastics events. Prerequisite: Limited gymnastics experience.

**Topic 6: Intermediate Gymnastics.** Apparatus work in either men's or women's Olympic gymnastics events. Prerequisite: Gymnastics experience.

**Topic 7: Intermediate Advanced Gymnastics.** Apparatus work in either men's or women's Olympic gymnastics events. Intense activity. Prerequisite: Gymnastics experience.

**Topic 8: Advanced Gymnastics.** Apparatus work in either men's or women's Olympic gymnastics events. Intense activity. Prerequisite: Intermediate-level gymnastics experience.

### **PED 108C. Basketball.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Basketball.** For those with little or no basketball experience.

**Topic 2: Intermediate Basketball.** For those with some skills in the game.

**Topic 3: Advanced Basketball.** For those with high skill and some competitive experience.

**Topic 4: Basketball: All Level.** Physical Education 108C (Topic: Basketball: All Level) and 108C (Topic 4) may not both be counted.

### **PED 108J. Power Volleyball.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Power Volleyball.** For those with few or no volleyball skills.

**Topic 2: Intermediate Power Volleyball.** For those with good basic skills: bump, set, spike, serve.

**Topic 3: Advanced Power Volleyball.** For those with high skills and knowledge of multiple offenses.

### **PED 108S. Softball.**

Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Beginning Softball.** For those with few softball skills.

**Topic 2: Intermediate Softball.** For those with experience and good basic skills.

## **Upper-Division Courses**

### **Graduate Courses**

### **Professional Courses**

## **Physical Science Courses**

### **Physical Science: P S**

#### **Lower-Division Courses**

#### **P S 303. Introductory Physical Science I: Mechanics and Heat.**

Restricted to students outside the College of Natural Sciences. Inquiry laboratory approach to basic concepts of measurement, forces, motion,

energy, temperature, and heat. Designed for students with minimum prior preparation in mathematics and physics. Especially appropriate for prospective elementary school teachers. Four hours of integrated laboratory and lecture a week for one semester. Only one of the following may be counted: Physical Science 303, Physics 301, 302K, 303K, 309K, 317K.

#### **P S 304. Introductory Physical Science II: Electricity, Light, and Optics.**

Restricted to students outside the College of Natural Sciences. Inquiry laboratory approach to electricity, magnetism, waves, light, and optical instruments. Four hours of integrated laboratory and lecture a week for one semester. Only one of the following may be counted: Physical Science 304, Physics 302L, 303L, 309L, 316, 317L. Prerequisite: Physical Science 303.

### **Upper-Division Courses**

#### **P S 350. Physical Science for Elementary and Middle School Teachers.**

Designed for kindergarten through sixth grade teachers with minimal preparation in mathematics (college algebra) and no preparation in physics. An inquiry laboratory in the basic concepts of light, electricity, and magnetism. Three hours of integrated laboratory and lecture a day for three weeks.

#### **P S 367M. Physical Science: Methods of Astronomy.**

Same as Astronomy 367M. An introductory, self-paced course in the methods of astronomy that emphasizes learning astronomical principles through observations. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Arts, Plan I, degree with a major in astronomy. Prerequisite: Upper-division standing and nine semester hours of coursework in mathematics and/or science, including one of the following: Physical Science 303, 304, Astronomy 301, 302, 303. Equivalent preparation in mathematics, physics, chemistry, or earth sciences may be substituted with written approval of the instructor.

#### **P S 375. Individual Study in Physical Science.**

Intended primarily for preservice and in-service teachers. Guided inquiry reading or laboratory research in physical science. Meets three times a week for one semester, for one hour each meeting. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and written consent of instructor.

## **Graduate Courses**

### **Professional Courses**

## **Physics Courses**

### **Physics: PHY**

#### **Lower-Division Courses**

#### **PHY 301. Mechanics.**

Designed for students who intend to major in science or mathematics. Three lecture hours a week for one semester. Only one of the following may be counted: Physical Science 303, Physics 301, 302K, 303K, 309K, 317K. Prerequisite: Credit with a grade of at least C- or registration in Mathematics 408D, 408L, or 408S, and Physics 101L; and an appropriate score on the physics assessment exam.

#### **PHY 101L. Laboratory for Physics 301.**

Three laboratory hours a week for one semester. Only one of the following may be counted: Physics 101L, 102M, 103M, 105M, 117M.

Prerequisite: Credit with a grade of at least C- or registration for Physics 301.

**PHY 302K (TCCN: PHYS 1301). General Physics Technical Course: Mechanics, Heat, and Sound.**

Noncalculus technical course in physics. Completion of high school trigonometry or Mathematics 305G is highly recommended. Three lecture hours a week for one semester. Only one of the following may be counted: Physical Science 303, Physics 301, 302K, 303K, 309K, 317K. Prerequisite: Credit with a grade of at least C- or registration for Physics 102M.

**PHY 302L (TCCN: PHYS 1302). General Physics Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics.**

Noncalculus technical course in physics. Three lecture hours a week for one semester. Only one of the following may be counted: Physical Science 304, Physics 302L, 303L, 309L, 316, 317L. Prerequisite: Credit with a grade of at least C- in Physics 302K and 102M; credit with a grade of at least C- or registration in Physics 102N.

**PHY 102M (TCCN: PHYS 1101). Laboratory for Physics 302K.**

Two laboratory hours a week for one semester. Only one of the following may be counted: Physics 101L, 102M, 103M, 105M, 117M. Prerequisite: Credit with a grade of at least C- or registration for Physics 302K.

**PHY 102N (TCCN: PHYS 1102). Laboratory for Physics 302L.**

Two laboratory hours a week for one semester. Only one of the following may be counted: Physics 102N, 103N, 105N, 116L, 117N. Prerequisite: Credit with a grade of at least C- or registration for Physics 302L.

**PHY 303K (TCCN: PHYS 2325). Engineering Physics I.**

A general survey of physics; primarily laws of motion, heat, and wave phenomena. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Physical Science 303, Physics 301, 302K, 303K, 309K, 317K. Prerequisite: Credit with a grade of at least C- or registration in Mathematics 408D, 408L, or 408S, and Physics 103M; and an appropriate score on the physics assessment exam.

**PHY 303L (TCCN: PHYS 2326). Engineering Physics II.**

Electricity and magnetism, optics, and atomic phenomena. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Physical Science 304, Physics 302L, 303L, 309L, 316, 317L. Prerequisite: Physics 303K and 103M with a grade of at least C- in each; credit with a grade of at least C- or registration in Mathematics 408D or 408M, and Physics 103N.

**PHY 103M (TCCN: PHYS 2125). Laboratory for Physics 303K.**

Two laboratory hours a week for one semester. Only one of the following may be counted: Physics 101L, 102M, 103M, 105M, 117M. Prerequisite: Credit with a grade of at least C- or registration for Physics 303K.

**PHY 103N (TCCN: PHYS 2126). Laboratory for Physics 303L.**

Two laboratory hours and one discussion hour a week for one semester. Only one of the following may be counted: Physics 102N, 103N, 105N, 116L, 117N. Prerequisite: Credit with a grade of at least C- or registration for Physics 303L.

**PHY 104. Introductory Physics Seminar.**

Suggested for beginning physics majors. Discussion of the development of important ideas in physics, with emphasis on their relevance to contemporary research. One lecture hour a week for one semester. Offered on the pass/fail basis only.

**PHY 105M. Laboratory For Physics 302K, 303K, and 317K.**

Participate in an introductory mechanics laboratory. Three laboratory hours a week for one semester. Only one of the following may be counted: Physics 101L, 102M, 103M, 105M, 117M. Prerequisite: Credit with a grade of at least C- or registration for Physics 302K, 303K, or 317K.

**PHY 105N. Laboratory For Physics 302L, 303L, and 317L.**

Participate in an introductory electricity, magnetism, and optics laboratory. Three laboratory hours a week for one semester. Only one of the following may be counted: Physics 102N, 103N, 105N, 116L, 117N. Prerequisite: Credit with a grade of at least C- or registration for Physics 302L, 303L or 317L.

**PHY 306. Elementary Physics Methods.**

Designed for students who have not had high school physics, have weak problem-solving skills, and need preparation for Physics 301 or 303K. Three lecture hours a week for one semester. May not be counted toward any degree. Prerequisite: High school trigonometry or Mathematics 305G.

**PHY 108. Introduction to Research.**

Introductory laboratory experience; use of tools and test equipment; beginning apprenticeship in active physics research. One class hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Consent of instructor and approval of an undergraduate adviser.

**PHY 208F, 308F. Introduction to Research.**

Introductory laboratory experience; use of tools and test equipment; beginning apprenticeship in active physics research. For 208F, one lecture hour and one-and-one-half laboratory hours a week for one semester; for 308F, one lecture hour and eight laboratory hours a week for one semester. Prerequisite: Consent of instructor and the undergraduate adviser.

**PHY 309K (TCCN: PHYS 1305, PHYS 1405). Elementary Physics for Nontechnical Students.**

Mechanics, heat, and sound. Designed for students who do not intend to do further work in natural sciences, engineering, mathematics, or medicine. Three lecture hours a week for one semester. Only one of the following may be counted: Physical Science 303, Physics 301, 302K, 303K, 309K, 317K. May not be counted toward a degree in the College of Natural Sciences.

**PHY 309L (TCCN: PHYS 1307, PHYS 1407). Elementary Physics for Nontechnical Students.**

Electricity and magnetism, light, atomic and nuclear physics. Designed for students who do not intend to do further work in natural sciences, engineering, mathematics, or medicine. Three lecture hours a week for one semester. Only one of the following may be counted: Physical Science 304, Physics 302L, 303L, 309L, 316, 317L. May not be counted toward a degree in the College of Natural Sciences. Prerequisite: Physics 309K with a grade of at least C-.

**PHY 110C. Conference Course.**

Supervised study of selected topics in physics, by individual arrangement with department and instructor. Conference course. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Written consent of instructor.

**PHY 315. Wave Motion and Optics.**

Study of general properties of waves; examples include sound, electromagnetic, and mechanical waves; special emphasis on light and optics. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Mathematics

408D, 408M, or equivalent; Physics 316 and 116L; and credit with a grade of at least C- or registration for Physics 115L and Mathematics 427J or 427K.

### **PHY 115L. Laboratory for Physics 315.**

Three laboratory hours a week for one semester. May not be counted toward a degree unless prerequisite is observed. Prerequisite: Credit with a grade of at least C- or registration for Physics 315.

### **PHY 316. Electricity and Magnetism.**

Three lecture hours a week for one semester. Only one of the following may be counted: Physical Science 304, Physics 302L, 303L, 309L, 316, 317L. Prerequisite: Physics 301 and 101L with a grade of at least C- in each; credit with a grade of at least C- or registration in Mathematics 408D or 408M, and Physics 116L.

### **PHY 116L. Laboratory for Physics 316.**

Three laboratory hours a week for one semester. Only one of the following may be counted: Physics 102N, 103N, 105N, 116L, 117N. Prerequisite: Credit with a grade of at least C- or registration for Physics 316.

### **PHY 317K. General Physics I.**

Mechanics, heat, and sound, with biomedical applications. An introductory course designed and recommended primarily for premedical students and others in the biomedical sciences whose professional or preprofessional training includes an introductory course in calculus. Satisfies most medical and dental school requirements for physics. Three lecture hours a week for one semester. Only one of the following may be counted: Physical Science 303, Physics 301, 302K, 303K, 309K, 317K. May not be counted toward the Bachelor of Science in Astronomy or Bachelor of Science in Physics. Prerequisite: Credit with a grade of at least C- in Mathematics 408C or 408R; or credit with a grade of at least C- in 408K or 408N and registration for 408L or 408S; and credit with a grade of at least C- or registration for Physics 117M.

### **PHY 317L. General Physics II.**

Electricity and magnetism, light, atomic and molecular physics, nuclear physics, and their biomedical applications. Designed and recommended primarily for premedical students and others in the biomedical sciences whose professional or preprofessional training includes an introductory course in calculus. Satisfies most medical and dental school requirements for physics. Three lecture hours a week for one semester. Only one of the following may be counted: Physical Science 304, Physics 302L, 303L, 309L, 316, 317L. May not be counted toward the Bachelor of Science in Astronomy or Bachelor of Science in Physics. Prerequisite: Physics 317K and 117M with a grade of at least C-; and credit with a grade of at least C- or registration in Physics 117N.

### **PHY 117M. Laboratory for Physics 317K.**

Three laboratory hours a week for one semester. Only one of the following may be counted: Physics 101L, 102M, 103M, 105M, 117M. Prerequisite: Credit with a grade of at least C- or registration for Physics 317K.

### **PHY 117N. Laboratory for Physics 317L.**

Three laboratory hours a week for one semester. Only one of the following may be counted: Physics 102N, 103N, 105N, 116L, 117N. Prerequisite: Credit with a grade of at least C- or registration for Physics 317L.

### **PHY 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Physics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study

Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **PHY 394E. Introduction to Quantum Physics.**

Designed for beginning graduate students in electrical engineering. Introduction to the basic concepts of quantum mechanics with emphasis on the application of quantum phenomena to the many-body systems. Origin of quantum mechanics, solution of particle in a box and harmonic oscillator, angular momentum and spin, bosons and fermions, distribution functions, crystals, Bloch's theorem, band theory, superfluids and superconductors. Three lecture hours a week for one semester. Normally meets with Physics 364E. Prerequisite: Graduate standing.

## **Upper-Division Courses**

### **PHY 321. Modern Physics: Plan II.**

Restricted to Plan II students. Conceptual foundations of modern physics. Examines quantum mechanics, quantum field theory, relativity, and general relativity, including large-scale structure and cosmology; and the development of analytic problem-solving skills, including estimation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **PHY 329. Introduction to Computational Physics.**

Computational methods for problem solving and research in physics; numerical analysis and computer simulation methods for physics applications using different types of computers. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 367, Mathematics 368K, Physics 329. Prerequisite: The following coursework with a grade of at least C- in each: Physics 315 and 115L; a programming course at the level of Computer Science 303E with a grade of at least C- and credit with a grade of at least C- or registration for Mathematics 340L, 341, or Statistics and Data Sciences 329C.

### **PHY 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Physics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Physics. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **PHY 329W. Cooperative Physics.**

Covers the work period of physics students in the Cooperative Education Program, which provides supervised work experience by arrangement with the employer and the supervising instructor. Forty laboratory hours a week for one semester. The student must repeat the course each work period and must take it twice to receive credit toward the degree; at least one of these registrations must be during a long-session semester. No more than three semester hours may be counted toward the major requirement; no more than six semester hours may be counted toward the degree. The student's first registration must be on the pass/fail basis. Prerequisite: Membership application to the Cooperative Physics Program, Physics 316 with a grade of at least C-, and consent of the undergraduate adviser.

### **PHY 333. Modern Optics.**

Review of geometrical optics, polarization, interference, and optical instruments. Subjects include Fourier optics, light propagation in fibers, quantum optics, and coherence. Three lecture hours a week for one

semester. Prerequisite: The following coursework with a grade of at least C- in each: Mathematics 427J or 427K, Physics 315, and 115L.

### **PHY 133L. Laboratory for Physics 333.**

Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Physics 333.

### **PHY 336K. Classical Dynamics.**

Elementary linear vector algebra, Newtonian mechanics, Lagrangian mechanics, central force motion, dynamics of rigid bodies, and theory of small oscillations. Three lecture hours a week for one semester.

Prerequisite: The following coursework with a grade of at least C- in each: Mathematics 427L or 364K, Physics 315, and 115L.

### **PHY 336L. Fluid Dynamics.**

Fundamental concepts of fluid mechanics developed and applied to laminar and turbulent flows. Subjects include the Navier-Stokes equations, pipe and channel flow, drag, boundary layers, convection, and rotating fluids. Three lecture hours a week for one semester. Prerequisite: Physics 336K with a grade of at least C-.

### **PHY 338K. Electronic Techniques.**

Elementary circuit theory, amplifiers, feedback, pulse and digital techniques, signal processing, and microprocessors as applied to physics instrumentation. One and one-half lecture hours and three laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Mathematics 427J or 427K, Physics 316, and 116L.

### **PHY 239C. Physics Cognition and Pedagogy.**

Investigate physics-specific education literature, and think about how the results of these studies apply to teaching practice. Discuss obstacles to students' academic success such as stereotype threat, identity, implicit bias, and mindset. Reflect on how to make a difference in students' learning as a physics learning assistant. The equivalent of two lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only.

### **PHY 341. Selected Topics in Physics.**

Three lecture hours a week for one semester. An additional one-hour problem session is required for some sections. May not be counted toward the Bachelor of Science in Physics degree without prior approval of the department. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, three semester hours of coursework in a natural science, and three semester hours of coursework in mathematics.

**Topic 1: Energy Production.** The various means that exist or have been suggested for generating energy; comparison in terms of efficiency, safety, and effects on the environment.

**Topic 2: Great Men, Moments, and Ideas.** How our views of matter, energy, and the universe developed.

**Topic 3: Musical Acoustics.** Study of the production, transmission, and perception of the special kind of sound called music, based on the application of elementary principles of physics.

**Topic 4: The Nature of Things.** A qualitative survey of all of physics, from falling bodies to quarks, making heavy use of classroom demonstrations.

**Topic 5: Pseudoscience.** Study of a variety of ideas treated very seriously by the communications media but having no basis in fact, including astrology, extrasensory perception, and flying saucers; why such areas are not part of science.

**Topic 6: Writing.**

**Topic 7: Research Methods: UTeach.**

### **PHY 345. Biophysics.**

Basic concepts of physics developed and applied to biological systems. Subjects include energy in living systems, entropic interactions, molecular forces and self-assembly, biopolymers, bio-membranes, cell-cell interactions, pattern formation, collective behavior, higher order systems, population dynamics and evolution. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and the following coursework with a grade of at least C- in each: Biology 311D, Chemistry 302, and Physics 355.

### **PHY 352K. Classical Electrodynamics I.**

Electrostatic fields, magnetostatic fields, derivation of Green's theorems and functions and of Maxwell's equations. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Mathematics 427L or 364K, Physics 315, and 115L.

### **PHY 352L. Classical Electrodynamics II.**

A continuation of Physics 352K, emphasis is placed on conservation laws, electromagnetic waves, potentials and fields, radiation, and Lorentz invariance. One or more special subjects, such as Rayleigh scattering and energy loss by relativistic charged particles in matter will be developed. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Physics 352K with a grade of at least C-.

### **PHY 353L. Modern Physics Laboratory.**

Laboratory experiments investigating the breakdown of classical physics for microscopic phenomena. Includes absorption and emission spectra, the photoelectric effect, blackbody radiation, the Compton effect, X-ray diffraction, and other experiments in modern physics. Four and one-half laboratory hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Physics 315 and 115L.

### **PHY 355. Modern Physics and Thermodynamics.**

Introduction to modern physics and thermodynamics: photons (spectra, photoelectric effect, blackbody radiation, Compton effect), atoms (Rutherford, Bohr), matter waves (Planck, deBroglie, probability interpretation, Schroedinger), nuclei, particles, special relativity, the laws of thermodynamics, and statistical physics. Three lecture hours a week for one semester. Prerequisite: Physics 303L or 316 with a grade of at least C-.

### **PHY 362K. Quantum Physics II: Atoms and Molecules.**

The two-electron atom; spin and statistics; coupling schemes for many-electron atoms; atoms and the radiation field; perturbation methods for decay and collisions; thermal, electrical, and magnetic properties of solids; and free-electron metal and band theory. May include subjects such as superconductivity, Josephson tunneling, and others. Three lecture hours a week for one semester. Prerequisite: Physics 373 with a grade of at least C-.

### **PHY 362L. Quantum Physics III: Particles and Nuclei.**

Nuclei and nucleons, their gross properties; the hadrons; symmetries and conservation laws; nuclear stability; electromagnetic, weak, and hadronic interactions; nuclear reactions at low, medium, and high energies; nucleon structure; tools of experimental nuclear physics; models of theoretical nuclear physics; nuclear technology. Three lecture hours a week for one semester. Prerequisite: Physics 373 with a grade of at least C-; Physics 362K is recommended.

### **PHY 369. Thermodynamics and Statistical Mechanics.**

Basic concepts of thermal physics; entropy, enthalpy, free energy, phase transitions, equilibrium distribution functions, applications. Three lecture

hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Physics 373.

### **PHY 670T. Senior Thesis.**

Individual research with faculty supervision. First half involves preparation of proposal; second involves completion of written thesis. Six hours of work a week for one semester, or three hours of work a week for two semesters. Only three semester hours may be counted toward the Bachelor of Science in Physics degree. Prerequisite: Upper-division standing and nine semester hours of upper-division coursework in physics.

### **PHY 371C. Individual Study in Physics.**

Supervised reading or research in physics. Hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing; Physics 336K with a grade of at least C-; credit with a grade of at least C- or registration for Physics 352K; and consent of the undergraduate adviser.

### **PHY 373. Quantum Physics I: Foundations.**

Postulates of quantum mechanics, the bound states of the finite square well, the harmonic oscillator, operator-eigenvalue formalism and selected examples, the hydrogen atom, angular momentum, rigid rotor, and spin. May include simple scattering theory. Three lecture hours a week for one semester. Prerequisite: Physics 315 and 355 with a grade of at least C-.

### **PHY 474. Advanced Laboratory I.**

Modern experimental techniques, theory of error, and analysis of experiments; both modern and classical experiments in atomic and nuclear physics, electricity and magnetism, optics and heat. Three lecture hours and eight laboratory hours a week for one semester, with additional laboratory hours to be arranged. With consent of instructor, may be repeated for credit. Prerequisite: Physics 352K, 353L, and 355; or consent of the undergraduate adviser. Physics 338K is recommended.

### **PHY 375P. Introductory Plasma Physics.**

Orbit theory and drifts, introduction to plasma stability and waves, applications to plasma confinement and heating. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Physics 352K and 369.

### **PHY 375R. Introduction to Relativity.**

Overview of the special and general theories of relativity, with emphasis on recent developments in gravitation. Three lecture hours a week for one semester. Prerequisite: Physics 352K with a grade of at least C-.

### **PHY 375S. Introductory Solid-State Physics.**

Crystal structure, classification of solids, cohesion, thermal and electrical properties of solids, magnetic properties of solids, imperfections. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Physics 369 and 373.

### **PHY 379H. Honors Tutorial Course.**

Research project, resulting in a thesis, for outstanding students electing to take the honors program in physics. Conference course. Prerequisite: A University grade point average of at least 3.00, a grade point average in physics of at least 3.50, twelve semester hours of upper-division coursework in physics, and consent of the student's research supervisor and the departmental honors adviser.

### **PHY 394E. Introduction to Quantum Physics.**

Designed for beginning graduate students in electrical engineering. Introduction to the basic concepts of quantum mechanics with emphasis on the application of quantum phenomena to the many-body systems. Origin of quantum mechanics, solution of particle in a box and harmonic oscillator, angular momentum and spin, bosons and fermions,

distribution functions, crystals, Bloch's theorem, band theory, superfluids and superconductors. Three lecture hours a week for one semester. Normally meets with Physics 364E. Prerequisite: Graduate standing.

## **Graduate Courses**

### **PHY 380L. Plasma Physics I.**

Particle drifts, equations for plasmas, magnetohydrodynamics, waves and instabilities in the two-fluid model, Vlasov equation, Landau damping, controlled thermonuclear research, plasma diagnostics. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PHY 380M. Plasma Physics II.**

Plasma containment, stability theory in fluid models, derivation of Vlasov and Fokker-Planck equations, the dielectric tensor, velocity space and gradient instabilities, Nyquist diagrams. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Physics 380L or consent of instructor.

### **PHY 380N. Experimental Physics.**

Experimental work to provide exposure to physics research techniques. Eighteen laboratory hours a week for one semester. Prerequisite: Graduate standing and concurrent enrollment in Physics 390.

### **PHY 380T. Advanced Study in Physics.**

Not open to physics majors. Special topics for physics teachers. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, a bachelor's degree in science or mathematics, and consent of the graduate adviser.

### **PHY 381C. Computational Physics.**

Dynamical and static descriptions and solutions of many-body, nonlinear physical systems by computation. Theory of computation and applications to various branches of physics. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and Physics 385K and 387K, or consent of instructor.

### **PHY 381M. Methods of Mathematical Physics I.**

Same as Computational Science, Engineering, and Mathematics 385M. Theory of analytic functions; linear algebra and vector spaces; orthogonal functions; ordinary differential equations; partial differential equations; Green's functions; complex variables. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 385M and Physics 381M may not both be counted. Prerequisite: Graduate standing.

### **PHY 381N. Methods of Mathematical Physics II.**

Same as Computational Science, Engineering, and Mathematics 385N. Continuation of Computational Science, Engineering, and Mathematics 385M and Physics 381M. Topology, functional analysis, approximation methods, group theory, differential manifolds. Three lecture hours a week for one semester. Computational Science, Engineering, and Mathematics 385N and Physics 381N may not both be counted. Prerequisite: Graduate standing; and Computational Science, Engineering, and Mathematics 385M or Physics 381M.

### **PHY 382M. Fluid Mechanics.**

Flow of ideal and viscous fluids; introduction to turbulence; boundary layers; sound and shock waves. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Physics 381M, 385K, and 387K.

### **PHY 382N. Nonlinear Dynamics.**

Basic concepts of evolution and stability, examples of instabilities, low dimensional dynamical systems, chaos, characterization of temporal chaos, pattern formation, Hamiltonian systems. Three lecture hours a

week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **PHY 382P. Biophysics I.**

The cell, small molecules and chemical kinetics, forces on the molecular scale, proteins, lipids and membranes, biopolymers, neurons and electrical signal transduction, and complex pattern formation in cells and cell aggregates. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **PHY 382Q. Biophysics II.**

Advanced biophysics with emphasis on biologically relevant questions addressed with physical approaches. Biopolymer mechanics, protein-nucleic acid interaction, protein structure and dynamics, membrane dynamics, cytoskeletal dynamics, motor proteins, cell shape and motility, cell communication, tissue mechanics. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and Physics 382P or consent of instructor.

### **PHY 382S. Seminar in Nonlinear Dynamics.**

Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PHY 385K. Classical Mechanics.**

Classical and relativistic Hamiltonian mechanics; Hamilton-Jacobi theory; Lagrangian mechanics for continuous media; symmetry principles and conservation laws. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PHY 385L. Statistical Mechanics.**

Equilibrium statistical mechanics; introduction to nonequilibrium concepts; ensembles; classical and quantum gases; statistical physics of solids. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Physics 385K or consent of instructor.

### **PHY 385S. Seminar in Statistical Physics.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PHY 385T. Special Topics in Statistical Physics.**

Topics to be announced. Three lecture hours a week for one semester. With consent of the graduate adviser, may be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **PHY 386K. Physics of Sensors.**

Physical principles of acoustic, optical, electromagnetic, radiation, and motion sensors. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **PHY 386N. Technical Seminar.**

Physics for applied and industrial purposes. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of the graduate adviser.

### **PHY 386S. Seminar in Applied Physics.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PHY 387K. Electromagnetic Theory I.**

Electrostatics and magnetostatics; boundary value problems; Maxwell's equations; plane waves; wave guides; diffraction; multipole radiation.

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PHY 387L. Electromagnetic Theory II.**

Magneto-hydrodynamics and plasmas; relativity; collisions of charged particles; radiation from moving charges; radiation damping. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Physics 387K.

### **PHY 387M. Relativity Theory I.**

Tensor calculus; Riemannian geometry; geometry of Minkowski space-time; special relativity theory. Three lecture hours a week for one semester. Offered in the fall semester only. Prerequisite: Graduate standing and Physics 387K.

### **PHY 387N. Relativity Theory II.**

General relativity theory; gravitational field equations; weak field approximations; Schwarzschild solution, observable consequences; other topics. Three lecture hours a week for one semester. Offered in the spring semester only. Prerequisite: Graduate standing and Physics 387M.

### **PHY 388M. Graduate Colloquy.**

Reviews of current topics in physics research. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **PHY 388S. Seminar in Teaching Physics.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PHY 389K. Quantum Mechanics I.**

Hilbert space and operators; Schroedinger and Heisenberg equations; solutions for systems in one and three dimensions; theory of spin and orbital angular momentum; the effect of symmetries; approximation techniques; elementary scattering theory. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PHY 389L. Quantum Mechanics II.**

Perturbation techniques; systems of identical particles; quantum theory of radiation; emission and absorption of photons; selection rules; life times; scattering theory for light and particles, S-matrix; relativistic corrections to electron motion. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Physics 389K.

### **PHY 190, 290, 390, 690, 990. Graduate Research.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May not be counted toward the master's degree in physics. Prerequisite: Graduate standing, and written consent of instructor filed with the graduate adviser.

### **PHY 391M. Nonlinear Plasma Theory.**

Quasi-linear theory, weak turbulence, large amplitude waves, plasma radiation, shock waves, shock structure, computer techniques. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Physics 380L.

### **PHY 391S. Seminar in Plasma Physics.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PHY 391T. Special Subjects in Plasma Physics.**

Subjects to be announced. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Prerequisite: Graduate standing, Physics 380L, and consent of instructor.

### **PHY 391U. Seminar in Plasma Theory.**

Current topics in plasma theory. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PHY 392K. Solid-State Physics I.**

Lattice vibrations and thermal properties of solids; band theory of solids; transport properties of metals and semiconductors; optical properties; magnetic properties; magnetic relaxation; superconductivity. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Physics 389K, and Physics 375S or the equivalent.

### **PHY 392L. Solid-State Physics II.**

Elementary excitations: phonons, electrons, spin waves; interactions: phonon-phonon, electron-electron, electron-phonon; theory of metals and semiconductors; transport theory; optical properties. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Physics 392K.

### **PHY 392N. Many-Body Theory.**

Overview of many-body theory; second quantization; Green's functions and Feynman diagrams; finite-temperature, imaginary-time Green's functions; the disordered metal; path integrals; broken symmetries; and local moments. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **PHY 392P. Advanced Optical Spectroscopy.**

Explore spectroscopy methods including: time-resolved photoluminescence, transient absorption, four-wave mixing, and multidimensional spectroscopy. Examine the propagation of ultrafast laser pulses in matter and dispersion-compensation. Consider the description of quantum dynamics such as decoherence and population relaxation using the density matrix formalism. Three lecture hours a week for one semester. Prerequisite: Graduate standing. For undergraduate students who take this course: Physics 315, Physics 373, or consent of the instructor and graduate advisor.

### **PHY 392S. Seminar in Solid-State Physics.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PHY 392T. Special Topics in Solid-State Physics.**

Topics to be announced. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Prerequisite: Graduate standing, Physics 392K, and consent of instructor.

### **PHY 393S. Seminar in Relativity.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PHY 393T. Special Topics in Relativity.**

Topics to be announced. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **PHY 394E. Introduction to Quantum Physics.**

Designed for beginning graduate students in electrical engineering. Introduction to the basic concepts of quantum mechanics with

emphasis on the application of quantum phenomena to the many-body systems. Origin of quantum mechanics, solution of particle or box and harmonic oscillator, angular momentum and spin, bosons and fermions, distribution functions, crystals, Bloch's theorem, band theory, superfluids and superconductors. Three lecture hours a week for one semester. Normally meets with Physics 364E. Prerequisite: Graduate standing.

### **PHY 394U. Special Topics in Theoretical Physics.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **PHY 395. Survey of Atomic and Molecular Physics.**

Spectra of atoms and diatomic molecules; quantum electronics; experimental techniques. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **PHY 395K. Nonlinear Optics and Lasers.**

Gaussian beam optics, interaction of electromagnetic radiation with matter, semiclassical laser theory, experimental laser systems, nonlinear optical susceptibilities, harmonic generation, wave mixing, electro-optic and acousto-optic effects, coherent transient effects, optical breakdown, laser-plasma interactions. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and either Physics 387K and 389K or consent of instructor.

### **PHY 395M. Laser Physics.**

Continuation of Physics 395K. Advanced atomic physics of various laser systems, optical coherence and diffraction theory, pulse propagation and dispersion effects, advanced laser oscillator and amplifier physics, laser amplifier chain design, and chirped-pulse amplification. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Physics 387K, 389K, and 395K, and consent of instructor.

### **PHY 395S. Seminar in Atomic and Molecular Physics.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PHY 395T. Special Topics in Atomic and Molecular Physics.**

Topics to be announced. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **PHY 396J. Introduction to Elementary Particle Physics.**

Historical introduction to elementary particles, elementary particle dynamics, relativistic kinematics, symmetries, bound states, the Feynman calculus, quantum electrodynamics, electrodynamics of quarks and hadrons, quantum chromodynamics, weak interactions, gauge theories. Three lecture hours a week for one semester. Prerequisite: Graduate standing, Physics 389K, and knowledge of special relativity and scattering.

### **PHY 396K. Quantum Field Theory I.**

Quantization of the Klein-Gordon, Dirac, and electromagnetic field theories; theory of interacting fields, perturbation theory, and renormalization. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Physics 389K.

### **PHY 396L. Quantum Field Theory II.**

Path-integral formalism, massless particles, electrodynamics, nonperturbative methods, one-loop calculations in quantum electrodynamics, general renormalization theory, soft photons, bound

statics in quantum electrodynamics. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Physics 396K.

### **PHY 396P. String Theory I.**

Introduction to string theory and conformal field theory. The free string, conformal invariance and conformal field theory, supersymmetry and string interactions. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Physics 396K or the equivalent or consent of instructor.

### **PHY 396Q. String Theory II.**

Advanced conformal field theory, perturbative string theory and compactification. Introduction to nonperturbative aspects of string theory. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Physics 396P.

### **PHY 396S. Seminar in Particle Physics.**

Topics to be announced. Three lecture hours a week for one semester. With consent of instructor, any topic may be repeated for credit. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PHY 396T. Special Topics in Particle Physics.**

Topics to be announced. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **PHY 397K. Nuclear Physics.**

Systematics of stable nuclei; nuclear structure; decay of the nucleus; cross sections and reaction mechanisms; the elementary particles. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Physics 389K or consent of instructor.

### **PHY 397S. Seminar in Nuclear Physics.**

Topics to be announced. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PHY 397T. Special Topics in Nuclear Physics.**

Topics to be announced. Three lecture hours a week for one semester. With consent of instructor, may be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **PHY 197U. Graduate Seminar in Nanoscience.**

Various seminar topics in nanoscience. One lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **PHY 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in physics and written consent of the supervising professor filed with the graduate adviser; for 698B, Physics 698A.

### **PHY 398S. Seminar in High Energy Theory.**

Three lecture hours a week for one semester. Physics 396U (Topic: Theory Group Seminar) and 398S may not both be counted. May be repeated for credit. Offered on the credit/no credit basis only.

### **PHY 398T. Supervised Teaching in Physics.**

A review of physics teaching strategies, administrative procedures, and classroom responsibilities. Includes a review and critique of each participant's classroom teaching. Three lecture hours a week for one

semester. Prerequisite: Graduate standing and appointment as a teaching assistant.

### **PHY 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

### **PHY 394E. Introduction to Quantum Physics.**

Designed for beginning graduate students in electrical engineering. Introduction to the basic concepts of quantum mechanics with emphasis on the application of quantum phenomena to the many-body systems. Origin of quantum mechanics, solution of particle or box and harmonic oscillator, angular momentum and spin, bosons and fermions, distribution functions, crystals, Bloch's theorem, band theory, superfluids and superconductors. Three lecture hours a week for one semester. Normally meets with Physics 364E. Prerequisite: Graduate standing.

## **Polish Courses**

### **Polish: POL**

#### **Lower-Division Courses**

##### **POL 601C. Intensive Polish I.**

Not open to native or heritage speakers of Polish. Emphasis on developing oral proficiency in Polish using intensive methods of instruction. Six lecture hours a week for one semester. Polish 601C and 506 may not both be counted. Polish 601C and 507 may not both be counted.

##### **POL 506. First-Year Polish I.**

Emphasis on four-skills proficiency. Five lecture hours a week for one semester. Polish 601C and 506 may not both be counted.

##### **POL 507. First-Year Polish II.**

Emphasis on four-skills proficiency. Five lecture hours a week for one semester. Polish 601C and 507 may not both be counted. Prerequisite: Polish 506.

##### **POL 611C. Intensive Polish II.**

Not open to native or heritage speakers of Polish. Continuing intensive development of proficiency in Polish, with a focus on speaking and the reading of authentic texts. Six lecture hours a week for one semester. Polish 611C and 312K may not both be counted. Polish 611C and 312L may not both be counted. Prerequisite: Polish 601C or 507.

##### **POL 312K. Second-Year Polish I.**

Emphasis on four-skills proficiency. Three lecture hours a week for one semester. Polish 611C and 312K may not both be counted. Prerequisite: Polish 601C or 507.

##### **POL 312L. Second-Year Polish II.**

Emphasis on four-skills proficiency. Three lecture hours a week for one semester. Polish 611C and 312L may not both be counted. Prerequisite: Polish 312K.

## **Upper-Division Courses**

##### **POL 325. Third-Year Polish I.**

Oral expression, reading, and composition. Three lecture hours a week for one semester. Polish 325 and Russian, East European, and Eurasian Studies 325 (Topic: Third-Year Polish I) may not both be counted. Prerequisite: Polish 611C or 312L.

### **POL 326. Third-Year Polish II.**

Continuation of Polish 325: Oral expression, reading, and composition. Three lecture hours a week for one semester. Polish 326 and Russian, East European, and Eurasian Studies 325 (Topic: Third-Year Polish II) may not both be counted. Prerequisite: Polish 325.

### **POL 328. Topics in Advanced Polish.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Polish 326.

### **POL 379. Conference Course in Polish Language or Literature.**

Conference course. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in Polish or consent of instructor.

## **Graduate Courses**

### **POL 392. Topics in Polish Language.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **POL 395. Conference Course.**

Study of individual problems in Polish language, literature, and culture. Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

## **Professional Courses**

# **Portuguese Civilization Courses**

## **Portuguese Civilization: PRC**

### **Lower-Division Courses**

#### **PRC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Portuguese Civilization.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **PRC 320E. Topics in Brazilian Studies.**

Focus on issues in Brazilian society and Portuguese society and culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Samba to Hip Hop: Brazilian Popular Music.** Same as Latin American Studies 328 (Topic 1). Examines the role of popular music in relationships of power with subordination and the impact of music as a form of cultural expression.

**Topic 2: Global Brazil: Immigration and Diaspora in Brazilian Culture.** Same as Latin American Studies 328 (Topic 2). Examination of twentieth-century literature, films, and other cultural artifacts that capture the multicultural reality of Brazilian society and challenge the image of Brazil as a unified, harmonious, racially-mixed nation. Subjects include contemporary textual and visual representations of the Brazilian diaspora in the United States and Europe. Only one of the following may be counted: Latin American Studies 328 (Topic 2),

370P (Topic 6), Portuguese Civilization 320E (Topic 2), Portuguese 375 (Topic 7).

**Topic 3: Afro-Luso-Brazilian Worlds.** Same as African and African Diaspora Studies 345D and Latin American Studies 328 (Topic 3). Examine the myths and realities in the Afro-Luso-Brazilian worlds and the connections and contrasts between them. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345D, 372G (Topic 8), 374E (Topic: Afro-Luso-Brazilian Worlds), Latin American Studies 328 (Topic 3), Portuguese Civilization 320E (Topic 3). Additional prerequisite: Upper-division standing.

### **PRC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Portuguese Civilization.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Graduate Courses**

## **Professional Courses**

# **Portuguese Courses**

## **Portuguese: POR**

### **Lower-Division Courses**

#### **POR 601D. First-Year Portuguese I.**

Development of speaking, listening, reading, and writing skills; building vocabulary, learning basic rules and terminology of grammar; and gaining a better understanding of Portuguese-speaking cultures, with focus on Brazil, in order to communicate in an accurate, effective, and informed manner within a variety of socio-cultural situations. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 601D and 610D; 604; 406 and 407; 508; 610S.

#### **POR 610D. First-Year Portuguese II.**

Development of speaking, listening, reading, and writing skills; building vocabulary, learning basic rules and terminology of grammar; and gaining a better understanding of Portuguese-speaking cultures, with focus on Brazil, in order to communicate in an accurate, effective, and informed manner within a variety of socio-cultural situations. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 610D, 612, 312K, 516. Prerequisite: Portuguese 601D or 407 with a grade of at least C.

#### **POR 610S. Portuguese for Spanish Speakers I.**

Designed to provide qualified Spanish-speaking students a rapid introduction to Portuguese language. Development of speaking, listening, reading, and writing skills; building vocabulary, learning basic rules and terminology of grammar; and gaining a better understanding of Portuguese-speaking cultures, with a focus on Brazil, in order to communicate in an accurate, effective, and informed manner within a variety of socio-cultural situations. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 601D and 610D; 604; 406 and 407; 508; 610S.

#### **POR 311C. Portuguese Conversation and Culture.**

Explore the development of speaking, listening, reading, and writing skills, and build vocabulary. Review rules and terminology of Portuguese

grammar. Examine complex grammar structures and Portuguese speaking cultures, with a focus on Brazil. Three lecture hours per week for one semester. Only one of the following may be counted: Portuguese 311C, 611D, 311J, 611S, 612, 312L, or 516. Prerequisite: Portuguese 610D or 610S (or 312K) with a grade of at least C.

#### **POR 611D. Second-Year Portuguese.**

Focuses on the development of speaking, listening, reading, and writing skills while building vocabulary. Reviews rules and terminology of Portuguese grammar. Introduces complex grammar structures and Portuguese speaking cultures, with a focus on Brazil, in order to communicate in an accurate, effective, and informed manner within a variety of socio-cultural situations. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 311C, 611D, 311J, 611S, 612, 312L, or 516. Only one of the following may be counted: Portuguese 611D, 611S, 612, 312L, 314C, 314J, or 516. Prerequisite: Portuguese 610D or 610S (or 508 or 312K) with a grade of at least C.

#### **POR 311J. Portuguese Conversation and Culture for Spanish Speakers.**

Designed for qualified Spanish-speaking students. Explore speaking and listening skills. Build vocabulary. Examine Portuguese-speaking cultures, with a focus on Brazil. Three lecture hours a week for one semester. Only one of the following may be counted: Portuguese 311C, 611D, 311J, 611S, 612, 312L, or 516. Prerequisite: Portuguese 610D or 610S (or 312K) with a grade of at least C.

#### **POR 611S. Portuguese for Spanish Speakers II.**

Continuation of Portuguese 610S. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 311C, 611D, 311J, 611S, 612, 312L, or 516. Only one of the following may be counted: Portuguese 611D, 611S, 612, 312L, 314C, 314J, or 516. Prerequisite: Portuguese 610S (or 604 or 508) with a grade of at least C.

#### **POR 612. Accelerated Second-Year Portuguese: Oral Expression, Reading, and Composition.**

Covers the same material as Portuguese 312K and 312L, but in one semester. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 610D and 611D; 611S; 612; 312K and 312L; 516. Only one of the following may be counted: Portuguese 311C, 611D, 311J, 611S, 612, 312L, or 516. Only one of the following may be counted: Portuguese 611D, 611S, 612, 312L, 314C, 314J, or 516. Prerequisite: Portuguese 604 or 508 with a grade of at least B, or Portuguese 407 with a grade of A; and consent of the lower-division coordinator for Portuguese.

#### **POR 314C. Intermediate Writing and Grammar in Context.**

Review rules and terminology of Portuguese grammar. Explore complex grammar structures in the context of reading and writing. Build vocabulary in the context of Portuguese speaking cultures, with a focus on Brazil. Three lecture hours per week for one semester. Only one of the following may be counted: Portuguese 611D, 611S, 612, 312L, 314C, 314J, or 516. Prerequisite: Portuguese 610D or 610S (or 312K) with a grade of at least C.

#### **POR 314J. Intermediate Writing and Grammar for Spanish Speakers.**

Designed for qualified Spanish-speaking students. Review rules and terminology of Portuguese grammar. Explore complex grammar structures in the context of reading and writing. Build vocabulary in the context of Portuguese speaking cultures, with a focus on Brazil. Three lecture hours per week for one semester. Only one of the following may be counted: Portuguese 611D, 611S, 612, 312L, 314C, 314J, or 516.

Prerequisite: Portuguese 610D or 610S (or 312K) with a grade of at least C.

#### **POR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Portuguese.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **POR 321P. Portuguese Pronunciation.**

Explore Portuguese pronunciation and the fundamental principles of phonetic analysis. Examine how Portuguese sounds are produced, how they fall into patterns, and how they change in different environments. Three lecture hours a week for one semester. Portuguese 321 and 321P may not both be counted. Prerequisite: Portuguese 311C and 314C, 611D, 311J and 314J, or 611S (or 312L).

#### **POR 322C. Conference Course in Luso-Brazilian Civilization.**

Conference course. Prerequisite: Portuguese 311C and 314C, 611D, 311J and 314J, or 611S (or 312L or 516); and written consent of the department chair.

#### **POR 322L. Conference Course in Luso-Brazilian Literature.**

Conference course. Prerequisite: Portuguese 311C and 314C, 611D, 311J and 314J, 611S, or 612 (or 312L or 516); and written consent of the department chair.

#### **POR 327C. Advanced Grammar and Writing in Context.**

Study and practice of Portuguese grammar, including reading exercises and guided composition designed to develop writing skills across styles. Students will be exposed to various topics in Portuguese language, literature, and culture. Three lecture hours a week for one semester. Portuguese 327C and 362 may not both be counted. Prerequisite: Portuguese 311C, 611D, 311J, 611S, 612, 314C, or 314J (or 312L or 516).

#### **POR 328C. Introduction to Literatures and Cultures.**

Same as Latin American Studies 370P (Topic 2). Overview of Luso-Brazilian literatures and cultures, including the arts and popular expressions from a multidisciplinary perspective. Among the regions studied are Brazil, Portugal, and related areas in Africa. Three lecture hours a week for one semester. Latin American Studies 370P (Topic 2) and Portuguese 328C may not both be counted. Prerequisite: Portuguese 311C and 314C, 611D, 311J and 314J, or 611S (or 312L or 516).

#### **POR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Portuguese.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **POR 330L. Introduction to Language and Linguistics in Society.**

Examines the dynamics of language structure and use throughout the Portuguese-speaking world. Covers topics such as sound systems,

grammatical structures, historical developments, language learning and loss, dialect differences, and their social significance. Three lecture hours a week for one semester. Prerequisite: Portuguese 311C and 314C, 611D, 311J and 314J, or 611S (or 312L or 516).

#### **POR 344C. Luso-Migrations: Portugal and Brazil.**

Explore post-colonial political and cultural relations between Portugal and Brazil. Examine nineteenth and twentieth century Portuguese travelogues, memoirs, films, and fiction. Three lecture hours per week for one semester. Only one of the following may be counted: Latin American Studies 370P (Topic: Luso-Migrations:Portugal/Braz), Portuguese 344 (Topic: Luso-Migrations:Portugal/Braz) or 344C. Prerequisite: Portuguese 327C (or 362).

#### **POR 350C. Brazilian Film and Culture.**

Explore a critical overview of Brazilian cinema, from the silent era to the present day, with an emphasis on the late twentieth and early twenty-first centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370P (Topic 4), Portuguese 350C, 350F (Topic 2), 350K. Prerequisite: Portuguese 327C (or 362).

#### **POR 352. Brazilian and Spanish American Literature.**

Explore Brazilian and Latin American literature and culture from the twentieth century and later. Examine the literary trends and social roles in the region while comparing and contrasting the culture and history from both Spanish America and Brazil. Three lecture hours a week for one semester. Prerequisite: Portuguese 311C and 314C, 611D, 311J and 314J, or 611S (or 312L or 516).

#### **POR 353. Sociolinguistics.**

Same as Latin American Studies 370P (Topic 11). Explores the interrelationship of language and society with reference to the Portuguese-speaking world. Examines how socio-economic, political, and anthropological factors like race, social class, gender, age, and identity influence linguistics forms. Three hours a week for one semester. Latin American Studies 370P (Topic 11) and Portuguese 353 may not both be counted. Prerequisite: Portuguese 327C or 362, and 330L.

#### **POR 354. United States Latino Literatures and Cultures in Context.**

Same as Latin American Studies 370P (Topic 10). Examines the United States Latino literary and cultural production from a multidisciplinary perspective, through literature, film, music, and performance. Analyzes the literatures and experiences of Brazilian American writers and artists in their historical and cultural specificities. Three lecture hours a week for one semester. Latin American Studies 370P (Topic 10) and Portuguese 354 may not both be counted. Prerequisite: Portuguese 327C (or 362).

#### **POR 364L. Applied Linguistics.**

Introduction to the linguistic structure of Portuguese; application of linguistic principles to the teaching of Portuguese. Three lecture hours a week for one semester. Prerequisite: Portuguese 311C and 314C, 611D, 311J and 314J, 611S, or 612 (or 312L or 516).

#### **POR 367C. Business in Brazilian Life and Culture.**

Explore cultural aspects of business practices in Brazil. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Studies 367 (Topic: Brazilian Life/Cul-BRA), Latin American Studies 322 (Topic 16), Portuguese 367C, Portuguese 367P (Topic 1). Prerequisite: Portuguese 327C or 362.

#### **POR 368T. Topics in Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Portuguese 327C (or 362).

#### **POR 375D. Global Brazil.**

Examine twentieth-century literature, films, and other cultural artifacts of the multicultural Brazilian society. Critique the image of Brazil as a unified, harmonious, racially-mixed nation. Explore contemporary textual and visual representations of the Brazilian diaspora in the United States and Europe. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370P (Topic 6), Portuguese 375 (Topic 7), 375D. Prerequisite: Portuguese 327C (or 362).

#### **POR 375E. Popular Music in Brazil.**

Explore Brazilian cultural politics through the message and performance of live and recorded song, including samba, bossa nova, protest song, Tropicalist counter-cultural song, Brazilian funk, hip hop, and mangubeat. Three lecture hours per week for one semester. Only one of the following may be counted: Portuguese 375 (Topic: Popular Music in Brazil) or 375E. Prerequisite: Portuguese 327C (or 362).

#### **POR 377C. Topics in Portuguese.**

Examine important themes in Brazilian society related to cultural production including literature, audiovisual, and media production. Three lecture hours per week for one semester. May be repeated for credit when the topics vary. Prerequisite: Portuguese 327C and 328C.

#### **POR 379C. Capstone Seminar in Literatures and Cultures.**

Central issues, concepts, and themes that define Luso-Brazilian literatures and cultures. Focus on a specific case study or case studies that result in the production of a research paper on a particular topic of interest. Three semester hours a week for one semester. Prerequisite: Portuguese 327C, 328C, and twelve hours of upper-division coursework in Portuguese.

#### **POR 379H. Honors Tutorial Course.**

Supervised individual research on a literary, linguistic, or cultural problem, culminating in a written thesis. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing, admission to the Iberian and Latin American Languages and Cultures Honors Program, and consent of the honors advisor.

#### **POR 379L. Capstone Seminar in Linguistics.**

Central issues, concepts, and themes that define linguistics. Focus on a specific case study or case studies that result in the production of a research paper on a particular topic of interest. Three lecture hours a week for one semester. Prerequisite: Portuguese 327C, 330L, and twelve hours of upper-division coursework in Portuguese.

### **Graduate Courses**

#### **POR 380. Studies in Luso-Brazilian Civilization and Culture.**

Topics in the social, political, and cultural ideas of Portugal and Brazil. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, six semester hours of upper-division coursework in Portuguese, and consent of the graduate adviser.

#### **POR 381. Studies in Brazilian Literature.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, six semester hours of upper-division coursework in Portuguese, and consent of the graduate adviser.

**Topic 1: Comparative Studies in the Literatures of Brazil and Spanish America.** Same as Spanish 380K (Topic 1: Comparative Studies in the Literatures of Brazil and Spanish America).

### **POR 382. Studies in Portuguese Literature.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and six semester hours of upper-division coursework in Portuguese.

### **POR 284P, 384P. Examination Preparation.**

Preparation for the master's comprehensive and doctoral qualifying examination. Designed to be taken in the same semester in which the student takes the examination. Individual instruction. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **POR 285L, 385L. Conference Course in Luso-Brazilian Literatures and Linguistics.**

For students with special interests not met by other courses offered in any one semester. Conference course. May be repeated for credit. Prerequisite: Graduate standing and written consent of the graduate adviser.

### **POR 393. Topics in Luso-Brazilian Literatures and Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **POR 395L. Comprehensive Examination Preparation.**

Supervised preparation for the Comprehensive Examination for the doctoral degree. Conference course. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and completion of all course requirements for the doctoral degree.

### **POR 396K. Comparative Romance Linguistics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in languages and consent of instructor and the graduate adviser.

**Topic 1: Comparative Romance Linguistics.** Same as Spanish 396K (Topic 1: Comparative Romance Linguistics).

**Topic 2: Introduction to Romance Linguistics.** Same as Italian 396K (Topic 1: Introduction to Romance Linguistics), Linguistics 383 (Topic 3: Introduction to Romance Linguistics), French 396K (Topic 1: Introduction to Romance Linguistics), and Spanish 396K (Topic 2: Introduction to Romance Linguistics).

### **POR 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Portuguese and consent of the graduate adviser; for 698B, Portuguese 698A.

### **POR 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Portuguese and consent of the graduate adviser.

### **POR 398T. Supervised Teaching.**

Same as Spanish 398T. Fundamentals of foreign language teaching methodology, with particular reference to the teaching of Portuguese or Spanish. Presentation of theoretical concepts on which classroom practice is based, in conjunction with teaching under close supervision

of the course instructor, individual consultations, reading assignments, and reports. Three lecture hours a week for one semester. Required for teaching assistants during the first semester that they teach. Offered on the letter-grade basis only. Prerequisite: Graduate standing, appointment as a teaching assistant, and consent of the graduate adviser.

### **POR 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Psychology Courses**

## **Psychology: PSY**

### **Lower-Division Courses**

#### **PSY 301 (TCCN: PSYC 2301). Introduction to Psychology.**

Basic problems and principles of human experience and behavior. Three lecture hours a week for one semester, or the equivalent in independent study.

#### **PSY 304 (TCCN: PSYC 2308). Introduction to Child Psychology.**

General introduction to physical, social, and cognitive development from conception onward. Three lecture hours a week for one semester. Only one of the following may be counted: Psychology 304, 333D, Women's and Gender Studies 333D, 345 (Topic 6). Prerequisite: Psychology 301 with a grade of at least C.

#### **PSY 305. Introduction to Cognitive Psychology.**

Introduction to the study of how people perceive, act, communicate, and reason. Three lecture hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C.

#### **PSY 306 (TCCN: PSYC 2306). Introduction to Human Sexuality.**

Introduction to the science of sex and mating. Provides an overview of the psychological, biological, and social factors that contribute to sexual well-being and human sexual attraction. Three lecture hours a week for one semester. Psychology 306 and 346K may not both be counted.

#### **PSY 308 (TCCN: PSYC 2330). Biopsychology.**

Introduction to the biological bases of psychological processes and behavior. Overview of the physiology and anatomy of the nervous system, followed by a survey of brain mechanisms of perception, cognition, learning, and emotion; biological perspectives on drug action and mental disease. Three lecture hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C.

#### **PSY 309 (TCCN: PSYC 2316). Personality.**

Research and theory concerning personality structure, dynamics, development, and assessment. Three lecture hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C.

#### **PSY 317 (TCCN: PSYC 2317). Statistical Methods in Psychology.**

Recommended for majors who plan to do graduate work in psychology or related fields. Measures of central tendency and variability; statistical inference; correlation and regression. Three lecture hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C.

### **PSY 317L. Introduction to Statistics for the Behavioral Sciences.**

Explore the R programming language, data visualization, data wrangling, descriptive statistics (measures of central tendency and variation), measures of association (correlation, regression). Examine inferential statistics including parametric tests (such as t-tests and ANOVA) and non-parametric tests (such as Kruskal-Wallis and chi-squared tests). Three lecture hours a week for one semester. Psychology 317L and 120R may not both be counted.

### **PSY 418. Statistics and Research Design.**

Survey of statistics, including central tendency, variability and inference, and scientific methodology used in psychological research. Three lecture hours and two discussion hours a week for one semester. Psychology 418 and 420M may not both be counted. Prerequisite: Psychology 301 with a grade of at least C and credit for one of the following: African and African Diaspora Studies 302M, Educational Psychology 371, Mathematics 302, 303D, 403K, 305G, 408C, 408K, 316; Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 328M.

### **PSY 319K (TCCN: PSYC 2319, SOCI 2326). Social Psychology.**

Theory and research on the analysis of human conduct in social settings. Three lecture hours a week for one semester. Prerequisite: Psychology 301 with a grade of at least C.

### **PSY 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Psychology.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **PSY 420M. Psychological Methods and Statistics.**

Restricted to psychology majors. Explore the basic and intermediate scientific methods and statistical techniques commonly employed in psychological research. Three lecture hours and two discussion hours a week for one semester. Psychology 418 and 420M may not both be counted. Prerequisite: Thirty semester hours of college coursework including Psychology 301 with a grade of at least C and credit for one of the following: African and African Diaspora Studies 302M, Educational Psychology 371, Mathematics 302, 303D, 403K, 305G, 408C, 408K, 316; Psychology 317L, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 328M.

### **PSY 120R. R Programming for Behavioral Sciences.**

Restricted to psychology majors. Introduction to the R programming language. One lecture hour a week for one semester. Psychology 317L and 120R may not both be counted. Prerequisite: Thirty semester hours of college coursework including Psychology 301 with a grade of at least C and credit for one of the following: African and African Diaspora Studies 302M, Educational Psychology 371, Mathematics 302, 303D, 403K, 305G, 408C, 408K, 316; Statistics and Data Sciences 301, 302 (or Statistics and Scientific Computation 302), 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), 306 (or Statistics and Scientific Computation 306), 318 (or Statistics and Scientific Computation 318), 328M (or Statistics and Scientific Computation 328M).

### **PSY 323. Perception.**

Theory and research in the ways we extract information from the environment. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 323P. Perceptual Systems: Neurons, Behavior, and Evolution.**

An introduction to perceptual systems, with an emphasis on perception in human and nonhuman primates. Subjects include the physics of perceptual stimuli, the neural processing of perceptual information, the performance of human and other primates in perceptual tasks, and the evolution of perceptual systems. Three lecture hours a week for one semester. Psychology 323P and 341K (Topic: Perceptual Systems: Neurons/Behavior/Evolution) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 323S. Sex Differences in Cognition and Perception.**

Examination of facts, theories, and implications of sex differences in human cognition and perception. Subjects include genetic and hormonal origins of sex differences, structural differences in the body and brain, verbal abilities, spatial abilities, learning, memory, sensory-motor abilities, and the auditory, olfactory, visual, and other sensory systems. Three lecture hours a week for one semester. Psychology 323S and 341K (Topic: Sex Differences in Cognition and Perception) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 323V. Seeing and Acting in a Virtual World.**

Methods of experimentation and discovery for examining one's own perceptions and actions in ordinary life. Three lecture hours a week for one semester. Psychology 323V and 341K (Topic: Seeing/Acting in Virtual World) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering

335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 325K. Advanced Statistics.**

Advanced statistical theory and methods for analysis of behavioral sciences data; subjects include analysis of variance and covariance, regression, and nonparametric techniques. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 326K. Principles of Conditioning and Learning.**

Laws of animal and human learning, and the underlying mechanisms. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Psychology.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Psychology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **PSY 332. Behavioral Neuroscience.**

Neuroscientific study of behavioral functions: fundamental structure and function of the human nervous system, sensory systems and perception, motor systems and behavior, motivation and learning, brain disorders and maladaptive behavior. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 332C. Hormones and Behavior.**

Neuroscientific study of hormones and behavior in animals and humans. Includes sexual behavior, sexual differentiation, parental behavior, aggressive behavior, feeding and drinking, stress, learning, and memory. Three lecture hours a week for one semester. Psychology 332C and 341K (Topic: Hormones and Behavior) may not both be counted. Prerequisite:

For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 332D. Human Brain Imaging in Psychology.**

Study of human brain imaging technologies such as fMRI and electrophysiology. Three lecture hours a week for one semester. Psychology 332D and 341K (Topic: Human Brain Imaging in Psychology) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 332M. The Neuroscience of Motivation and Reward.**

Examination of mechanisms of the brain that control behaviors such as incentive motivation, reward, aversion, and addiction. Three lecture hours a week for one semester. Psychology 332M and 341K (Topic: Neuroscience of Motivation and Reward) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 332P. Neural Plasticity And Behavior.**

Examine basic concepts and current research directions in brain plasticity. Includes theory and research on how animals learn and remember, how brain areas and neurons adapt to life experiences, trauma, injury, and aging and new treatment directions based on neural plasticity principles. Three lecture hours a week for one semester. Psychology 332P and 341K (Topic: Neural Plasticity And Behavior) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 332T. Biological Clocks and Behavior.**

Explore the role of biological clocks in health and disease. Three lecture hours a week for one semester. Psychology 332T and 341K (Topic: Biological Clocks/Behavior) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and

418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 332W. Vision and Action.**

Three lecture hours a week for one semester. Psychology 332W and 341K (Topic: Vision and Action) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333C. Controversial Issues in Development.**

An exploration of questions in developmental psychology that are currently in dispute. Subjects may include stem cell research, treatment of juveniles in the legal system, physician-assisted suicide, and methods of sex education. Three lecture hours a week for one semester. Psychology 333C and 341K (Topic: Controversial Issues in Development) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333D. Introduction to Developmental Psychology.**

Same as Women's and Gender Studies 333D. Physical, social, and cognitive development in humans. Three lecture hours a week for one semester. Only one of the following may be counted: Psychology 304, 333D, Women's and Gender Studies 333D, 345 (Topic 6). Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333E. Identity Formation.**

An introduction to historical theories of and current research on identity, with particular focus on identity development in the domains of occupation, religion, politics and morality, gender, ethnicity, and adoption. Three lecture hours a week for one semester. Psychology 333E and 341K (Topic: Identity Formation) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division

standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333F. Fantasy and Reality.**

Examination of how children and adults decide what is real and what is not. Subjects include the fantasy-reality distinction, magical thinking, and religious cognition. Three lecture hours a week for one semester. Psychology 333F and 341K (Topic: Fantasy and Reality) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333G. The Development of Attachment Relationship.**

Study of the attachment relationship. Three lecture hours a week for one semester. Psychology 333G and 341K (Topic: Dev of Attachment Relationship) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333M. Infant Development.**

Examination of genetic and environmental determinants of social, perceptual, and cognitive development in infants from theoretical and research perspectives. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333N. Cognitive Development.**

Overview of the development of thinking from infancy through childhood. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering

335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333P. Child Language.**

Examination of theory and research concerning the development of language in the child. Three lecture hours a week for one semester. Only one of the following may be counted: Linguistics 373 (Topic: Language Acquisition), 373 (Topic 1), Psychology 333P. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333R. Social Development in Children.**

Same as Women's and Gender Studies 333R. Development of social behavior (for example, sex typing and aggression) and social relationships. Three lecture hours a week for one semester. Only one of the following may be counted: Psychology 333R, Women's and Gender Studies 333R, 345 (Topic 19). Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333S. Developmental Science of Adolescence.**

An in-depth exploration of what it means to be an adolescent - how the brain, hormones and cognitive development change motivation and behavior, and how institutions (schools, governments, police) help or hinder young people's development. Three lecture hours a week for one semester. Psychology 333S and 341K (Topic: Devel Sci of Adolescence) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333T. Adolescent Development.**

Physical, cognitive, social, and personality development during adolescence. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics

309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 333W. Moral Development.**

An introduction to theory and research on morality. Subjects include culture and morality, Freudian and social learning perspectives on moral development, Kohlberg's theory of morality, challenge to Kohlberg's theory, and cognitive, familial, and emotional influence on morality. Three lecture hours a week for one semester. Psychology 333W and 341K (Topic: Moral Development) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 334D. Psychology of Human Mating.**

Mate selection, sources of conflict, and mating over the life span, studied in the context of evolutionary psychology and sexual selection theory. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 334E. Evolutionary Psychology.**

Fundamentals of evolutionary psychology, including issues of natural and sexual selection, adaptation, and domain-specific psychological mechanisms. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 337. Psychology of Language.**

Consideration of approaches to the study of language, its development in children, and its functioning; important research from psychology and linguistics. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics

309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 337P. Language Processing.**

Introduction to psycholinguistics, which uses methods and theories from cognitive psychology and cognitive science to understand how people speak, comprehend, and learn language(s). Three lecture hours a week for one semester. Psychology 337P and 341K (Topic: Language Processing) may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 338K. Psychology of Reading.**

Theory and research on the reading process and its acquisition. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 339. Behavior Problems of Children.**

Adjustment difficulties during childhood and adolescence; causation and treatment. Three lecture hours a week for one semester. Psychology 339 and Human Development and Family Sciences 342 may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 340M. Industrial Psychology.**

A general introduction to organizational behavior and issues in industrial/organizational psychology. Subjects include organizational structure, selection and placement, leadership, job satisfaction, training, and change. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 341K. Selected Topics in Psychology.**

Topics of contemporary interest that may vary from semester to semester. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

#### **Topic 4: Health Psychology.**

#### **Topic 7: Epidemiology.**

#### **Topic 8: Learning and the Brain.**

**Topic 12: Personality Assessment.** Theoretical and methodological issues involved in trying to understand and measure personality.

#### **Topic 14: Robot Cognition.**

**Topic 15: History of Modern Psychology.** A survey of the diverse roots of modern psychology, the competing schools that influenced psychology's development, and the perspectives that guide scholarship in present-day psychology. Psychology 341K (Topic 15) and 341K (Topic: History and Systems of Psychology) may not both be counted.

**Topic 16: Psychology of Fundamentalism.** Psychological research and theory on religious fundamentalism. Considers the nature of different forms of religious fundamentalism, and possible psychological mechanisms that motivate fundamentalism. Includes topics such as the development of fundamentalism, the movement from fundamentalism to terrorism, and fundamentalism and the family.

**Topic 17: Psychology and Religion.** An exploration of the psychological processes involved in religion. Discusses seminal psychological theories of religion, such as the work of James, Freud, Jung, and Maslow. Discussion of empirical work includes topics such as the development of religion across the life span, religious experience, conversion, and the effects of religion on mental and physical health.

#### **Topic 18: Language and Thought.**

**Topic 19: Psychology of Literature.** Delves into the relation between literature and psychological research. Addresses this relation in terms of character development, plot devices, and historical influences. Broadly explore why people are interested in reading literature that might be subjective or wholly fictional in nature. Explore the extent to which authors create characters that 'ring true' to what psychological science has learned about human nature and how this affects the reader's enjoyment of the literature. Psychology 341K (Topic: Psychology of Literature) and 341K (Topic 19) may not both be counted.

### **PSY 343K. Substance Abuse.**

Causes of substance abuse: the evolutionary perspective, sex differences, predisposition, biological and cognitive theories; emphasis on food and alcohol. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L,

Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 345. Individual Differences.**

Study of person-to-person variation in intelligence, personality, and interests, with an emphasis on genetic and environmental determinants, developmental processes, and their relation to real-world outcomes. Three lecture hours a week for one semester. Psychology 341K (Topic: Individual Differences) and 345 may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 346K. Psychology of Sex.**

Development of sex from genes to human behavior. Three lecture hours a week for one semester. Psychology 306 and 346K may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 350. Motivation.**

Theory and research on motivation; biological and social determinants. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 352. Abnormal Psychology.**

Biological and social factors in the development and treatment of psychopathology. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 353K. Psychopharmacology.**

The pharmacology and the neurochemical, neurophysiological, and psychological effects of psychoactive drugs, with regard to their use as

therapeutic and behavioral research tools. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 355. Cognition.**

Theoretical and critical analysis of the development, nature, and function of the thought process. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 355C. Development of Categories and Concepts.**

Study of the historical and contemporary knowledge about the ways that people learn about concepts. Three lecture hours a week for one semester. Psychology 341K (Topic: Categories and Concepts) and 355C may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 355D. Animal Cognition.**

An introduction to animal intelligence and the evolution of mind. Examines what is known about intelligence in other animals, how intelligence is revealed in social and problem-solving behavior, and the ways in which human intelligence is structured by its evolutionary past. Three lecture hours a week for one semester. Psychology 341K (Topic: Animal Cognition) and 355D may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 355M. The Cognitive Psychology of Music.**

Cognitive foundations of music in terms of physics of sound, the psychophysics of musical experience, perceptual organization of musical scenes, the perception of time through rhythm, and the ways in which music reflects natural form. Three lecture hours a week for one semester. Psychology 341K (Topic: Cognitive Psychology of Music) and 355M may

not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 355N. Cognitive Neuroscience.**

Exploration of the link between the brain, mind, and behavior and cognitive neuroscience techniques. Three lecture hours a week for one semester. Psychology 341K (Topic: Cognitive Neuroscience) and 355N may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 355Q. Cognitive Science of Religion.**

Explore cognitive and evolutionary approaches to understanding religion. Examine cutting-edge research on the cognitive science of religion from disciplines including anthropology, psychology, philosophy, and religious studies. Three lecture hours a week for one semester. Psychology 341K (Topic: Cognitive Sci of Relign) and 355Q may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 355R. Reasoning and Decision Making.**

Survey of psychological research on how people reason and make decisions. Subjects include mental models, causality, analogy, heuristics, emotion, motivation, culture, and decision making. Three lecture hours a week for one semester. Psychology 341K (Topic: Reasoning and Decision Making) and 355R may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 355S. Social Cognition.**

Examine major theories and research findings in social cognition. Three lecture hours a week for one semester. Psychology 341K (Topic: Social Cognition) and 355S may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and

418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 357. Undergraduate Research.**

Supervised research experience. Individual instruction. May not be counted toward a major in psychology. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: At least thirty semester hours of college coursework, Psychology 301 with a grade of at least C, and consent of instructor.

### **PSY 458. Experimental Psychology.**

Techniques of psychological research illustrated in a series of laboratory experiments. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Upper-division standing, Psychology 301 and 418 or 420M and with a grade of at least C in each, and a University grade point average of at least 3.25.

### **PSY 158H. Honors Research Tutorial.**

Enrollment restricted to students in the Psychology Honors Program. Individual instruction. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, Psychology 301 and 418 with a grade of at least C in each, and consent of the honors adviser.

### **PSY 359. Selected Topics: Readings: Tutorial.**

Supervised reading in selected topics of significance; area of intensive study is chosen by the student in consultation with the instructor. Individual instruction. May not be counted toward a major in psychology. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, Psychology 301 with a grade of at least C, and consent of instructor.

### **PSY 359H. Honors Research I.**

Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Psychology 301 and 418 with a grade of at least C in each, six semester hours of upper-division coursework in psychology, a grade point average of at least 3.50 in psychology courses taken at the University, a University grade point average of at least 3.25, and consent of the honors adviser.

### **PSY 364. Introduction to Clinical Psychology.**

Introduction to techniques of assessment and treatment of psychopathology. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 364F. Forensic Psychology.**

Examine the study and practice of psychology as it applies to issues relating to the law and legal system, such as: determination of competency and insanity, expert testimony, jury selection and the social psychology of the courtroom, eyewitness testimony, and false

confessions. Three lecture hours a week for one semester. Psychology 341K (Topic: Forensic Psychology) and 364F may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

#### **PSY 364M. Mental Illness and the Brain.**

Introduction to the brain dysfunction and cognitive impairment often associated with mental illness and how its recognition and assessment can be used to help with differential diagnosis, prognosis, and treatment planning. Three lecture hours a week for one semester. Psychology 341K (Topic: Mental Illness and the Brain) and 364M may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

#### **PSY 364P. Positive Psychology and the Good Life.**

A survey of the emerging field of positive psychology, including assessment and determinants of well-being; human strengths and virtues; the good life considered from evolutionary, economic, sociological, and cross-cultural perspectives; and applications to issues such as social change. Three lecture hours a week for one semester. Psychology 341K (Topic: Positive Psychology and the Good Life) and 364P may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

#### **PSY 364S. Human Sexuality.**

Human sexuality from a clinical and evolutionary perspective with a focus on the assessment, diagnoses, and treatment of sexual dysfunctions. Three lecture hours a week for one semester. Psychology 341K (Topic: Human Sexuality) and 364S may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

#### **PSY 364T. Multicultural Psychotherapy.**

Introduction to multicultural approaches to personality assessment and counseling psychotherapy. Three lecture hours a week for one semester. Psychology 341K (Topic: Multicultural Psychotherapy) and 364T may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

#### **PSY 365E. Emotion.**

Examination of the scientific literature on the psychology of human and animal emotion. Three lecture hours a week for one semester. Psychology 341K (Topic: Emotion) and 365E may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

#### **PSY 365G. Gender and Racial Attitudes.**

Advanced introduction to the psychological study of gender and racial attitudes in children and adults, with emphasis on the causes, consequences, and revision of an individual's gender and racial stereotypes. Three lecture hours a week for one semester. Psychology 341K (Topic: Gender and Racial Attitudes) and 365G may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

#### **PSY 365L. Advanced Social Psychology.**

Experimental research in social psychology, social influence, decision making, affiliation, risk taking, stress, and other subjects. Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

#### **PSY 371. Learning and Memory.**

Analysis of theory and research in learning. Three lecture hours a week for one semester. Psychology 341K (Topic: Brain Mechanisms of

Learning and Memory) and 371 may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 371R. Brain Mechanisms and Learning Theory Applied to Real World Scenarios.**

Three lecture hours a week for one semester. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 373N. The Neurobiology of Attention.**

Examination of behavioral and brain mechanisms of attention in humans and other animals. Three lecture hours a week for one semester. Psychology 341K (Topic: Neurobiology of Attention) and 373N may not both be counted. Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **PSY 377P, 677P. Undergraduate Practicum.**

Field experience in applied psychology. Students are supervised by faculty members and by practitioners in community agencies. One lecture hour and ten or twenty hours of fieldwork a week for one semester. May not be counted toward a major in psychology. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and consent of the practicum supervisor.

### **PSY 379H. Honors Research II.**

Three lecture hours a week for one semester. Prerequisite: Upper-division standing, Psychology 301 and 418 or 420M with a grade of at least C in each, Psychology 458 and 359H, and consent of the honors adviser.

## **Graduate Courses**

### **PSY 380C. Human Neuropsychology.**

Basic issues in normal and abnormal human brain function reviewed with emphasis on disorders of higher cerebral functioning. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Psychology 383C or consent of instructor.

### **PSY 380E. Vision Systems.**

Introduction to the anatomy, physiology, and psychophysics of human vision from an information-processing and computational perspective. Three lecture hours a week for one semester. Neuroscience 380E and

Psychology 380E may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **PSY 380F. Fundamentals of Evolutionary Psychology.**

Survey of important theories and research in evolutionary psychology, with emphasis on current problems. Three lecture hours a week for one semester. A core course option. Prerequisite: Graduate standing and consent of instructor.

### **PSY 380W. Writing Workshop.**

Explore tools to create and maintain a consistent writing practice and meet research goals. Track writing, discuss challenges and progress in a supportive community, and receive feedback on written work. Three lecture hours a week for one semester. Psychology 380W and 394S (Topic: Graduate Writing Workshop) may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **PSY 381C. Methods of fMRI: From Design to Data Analysis.**

Methods behind all common fMRI data preprocessing steps and data analysis models, including how to properly implement and evaluate their performance. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PSY 381D. Advanced Topics in Neuroimaging.**

Addresses the latest developments in the design, analysis, and interpretation of neuroimaging data. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **PSY 381E. Introduction to Psychophysiology.**

An overview of the principles, theory, and applications of using physiological measures to study mental processes. Covers the philosophical and theoretical foundations of brain/behavior relations and introduces basic electrical principles and human neurophysiology. A core course option. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **PSY 381F. Grant Writing for the National Science Foundation.**

Explore the application and review procedures when requesting funding from the National Science Foundation. Three lecture hours a week for one semester. Psychology 381F and 394V (Topic: Grnt Wrt Natl Sci Fndtn) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **PSY 381G. Grant Writing in the Behavioral and Biological Sciences.**

Same as Neuroscience 381G. Introduction to grant writing in the behavioral and biological sciences and development of grant writing skills. Subjects include: finding grant opportunities, planning proposal activities, successful grant writing strategies, and how to talk to grant program officers. Write grant proposals (e.g., proposals to federal agencies such as NSF or NIH) and revise proposals based on peer and instructor feedback. Explore how grant proposals are reviewed by participating in a mock review session. Three lecture hours a week for one semester. Only one of the following may be counted: Neuroscience 381G, 394P (Topic: Grant Writing in the Behavioral and Biological Sciences), Psychology 381G, 394U (Topic: Grant Writing in the Behavioral and Biological Sciences). Prerequisite: Graduate standing and consent of instructor.

### **PSY 381H. Professional Development for Careers in Psychological Science.**

Explore professional development issues that arise in academic and non-academic careers for psychological scientists. Three lecture hours a

week for one semester. Psychology 381H and 394V (Topic: Proseminar: Professional Development for Academic Psychologist) may not both be counted. Prerequisite: Graduate standing.

### **PSY 382E. Area Seminar in Cognitive Science.**

Current issues in cognitive science. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **PSY 382F. R Programming in Behavioral Sciences.**

Design reproducible behavioral data analysis using R and RStudio. Emphasis on coding skills to organize, analyze, and visualize data. Three lecture hours a week for one semester. Psychology 382F and 394U (Topic: R Programming Behavioral Sci) may not both be counted. Prerequisite: Graduate Standing.

### **PSY 182K, 282K, 382K. Internship in Clinical Psychology.**

Supervised practical experience in clinical assessment and treatment. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with practicum hours to be arranged. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree in clinical psychology.

### **PSY 383C. Functional Neuroanatomy.**

An examination of the anatomy of the brain and spinal cord, emphasizing connections and functions of neural systems. Three lecture hours a week for one semester. Neuroscience 383C and Psychology 383C may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **PSY 383E. Area Seminar in Cognitive Neuroscience.**

Current issues in cognitive neuroscience. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **PSY 383M. Fundamentals of Physiological Psychology.**

Survey of important theories and research in physiological psychology, with emphasis on current problems. Three lecture hours a week for one semester. A core course option. Prerequisite: Graduate standing and consent of instructor.

### **PSY 383T. Principles of Sensory and Behavioral Neuroscience.**

A proseminar covering the core material on essential topics in sensory and behavioral neuroscience. Three lecture hours a week for one semester. Neuroscience 383T and Psychology 383T may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **PSY 384C. Bootstrap Statistics.**

Same as Neuroscience 384C. An introduction to modern methods of statistical analysis based on numerical computer simulation. Covers a range of common data analysis situations drawn mainly from the fields of neuroscience and experimental psychology. Techniques include point estimation, two-group and multiple group experiments, regression and curve fitting, and Bayesian analysis. Three lecture hours a week for one semester. Only one of the following may be counted: Neuroscience 384C, 385L (Topic: Bootstrap Statistics), Psychology 384C, 394U (Topic: Bootstrap Statistics). Prerequisite: Graduate standing, an undergraduate statistics course, and consent of instructor.

### **PSY 184E. Area Seminar in Clinical Psychology.**

One lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **PSY 384K. Advanced Statistics: Experimental Design.**

Consideration of problems of analysis and design commonly encountered in psychological research. Three lecture hours a week for one semester. Only one of the following may be counted: Psychology 384K, 385J, 394T (Topic: Linear Models: Regression Anova). Prerequisite: Graduate standing, an undergraduate statistics course, and consent of instructor.

### **PSY 384M. Advanced Statistics: Inferential.**

Same as Neuroscience 384M. Covers t-test, chi-square, analysis of variance, and nonparametric tests. Three lecture hours a week for one semester. Prerequisite: Graduate standing, an undergraduate statistics course, and consent of instructor.

### **PSY 384P. Regression Analysis.**

Offers thorough coverage of all major aspects of regression. Coverage includes linear model theory and application, polynomial and interaction models, multivariate linear and logistic regression, and all related diagnostics. Three lecture hours a week for one semester. Psychology 384P and 394T (Topic: Regression Analysis) may not both be counted. Prerequisite: Graduate Standing and consent of instructor.

### **PSY 384Q. Advanced Applied Statistics I.**

Coverage of advanced statistical techniques useful in the social sciences and beyond. Specific areas of focus include non-linear regression, robust analysis, mixed-model regression (hierarchical linear models), and principal components/factor analysis. Three lecture hours a week for one semester. Psychology 384Q and 394T (Topic: Advanced Applied Statistics I) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **PSY 184R. Data analysis with R.**

Using R for a variety of data analyses following the topics covered in Psychology 384M including: reading data into R, generating graphs, ANOVA, ANCOVA, and regression. One lecture hour a week for one semester. Offered on the letter-grade basis only. Prerequisite: Consent of instructor, and registration or credit for Psychology 384M.

### **PSY 384S. Advanced Applied Statistics II.**

Coverage of advanced statistical techniques useful in the social sciences and beyond. Specific areas of focus include semi-parametric regression, categorical data modeling, resampling and permutation techniques, monte carlo simulation, time-to-event analysis, and structural equations modeling. Three lecture hours a week for one semester. Psychology 384S and 394T (Topic: Advanced Applied Statistics II) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **PSY 384T. Structural Equation Modeling.**

Introduction to structural equation modeling. Three lecture hours a week for one semester. Psychology 384T and 394T (Topic: Structural Equation Modeling) may not both be counted. Prerequisite: Graduate standing and consent of instructor; and a working understanding of multiple regression analysis.

### **PSY 385E. Area Seminar in Developmental Psychology.**

Current issues in developmental psychology. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**PSY 385J. Linear Models: Regression and ANOVA Methods.**

Explores linear modeling from both conceptual and applied perspectives. Focuses on ANOVA, including multi-factor designs, post-hoc testing, and analysis of covariance, as well as on regression, including univariate and multivariate regression, polynomial and interaction models, logistic regression, and related diagnostics. Three lecture hours a week for one semester. Only one of the following may be counted: Psychology 384K, 385J, 394T (Topic: Linear Models: Regression Anova). Prerequisite: Graduate standing and consent of instructor.

**PSY 385N. Fundamentals of Personality Psychology.**

Survey of important theories and research in personality psychology, with emphasis on current problems. Three lecture hours a week for one semester. A core course option. Prerequisite: Graduate standing and consent of instructor.

**PSY 385P. Fundamentals of Social Psychology.**

Survey of important theories and research in social psychology, with emphasis on current problems. Three lecture hours a week for one semester. A core course option. Prerequisite: Graduate standing and consent of instructor.

**PSY 386D. Multivariate Pattern Analysis.**

Same as Neuroscience 386D. Explores cutting-edge techniques for finding meaningful patterns in large, noisy brain data sets, and how to use these techniques to address a variety of questions in cognitive neuroscience. Three lecture hours a week for one semester. Only one of the following may be counted: Neuroscience 386D, 394P (Topic: fMRI Brain Decoding), Psychology 386D, 387D. Prerequisite: Graduate standing and consent of instructor.

**PSY 386E. Area Seminar in Individual Differences and Evolutionary Psychology.**

Current issues in individual differences and evolutionary psychology. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**PSY 386N. Fundamentals of Psycholinguistics.**

Survey of important theories and research in psycholinguistics, with emphasis on current problems. Three lecture hours a week for one semester. A core course option. Prerequisite: Graduate standing and consent of instructor.

**PSY 387C. Human Language Processing.**

An overview of current psycholinguistic research, primarily in the production and comprehension of spoken language by adults. A core course option. Three lecture hours a week for one semester. Psychology 387C and 394U (Topic: Human Language Process) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

**PSY 387E. Area Seminar in Perception, Brain, and Behavior Psychology.**

Current issues in perception, brain, and behavior psychology. Three lecture hours a week for one week. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**PSY 387N. Perceptual Systems.**

Overview of theory and research in visual perception and perceptual information processing. Three lecture hours a week for one semester. A core course option. Prerequisite: Graduate standing and consent of instructor.

**PSY 387S. Principles of Cognitive Neuroscience.**

Introduction of graduate students to the methods, theories, and research of cognitive neuroscience across a broad range of mental domains such as attention, memory, language, and decision making. A core course option. Three lecture hours a week for one semester. Psychology 387R and 387S may not both be counted. Prerequisite: Graduate standing and consent of instructor.

**PSY 388D. Individual Differences Psychology.**

Person-to-person differences in cognitive abilities and personality, with emphases on genetic and environmental influences, developmental processes, and relations to real world outcomes. A core course option. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

**PSY 388E. Area Seminar in Social and Personality Psychology.**

Current issues in social and personality psychology. Three lecture hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**PSY 388K. Conference on Special Topics.**

Readings, conferences, and other work on individually selected topics. Conference course. May be repeated for credit. Prerequisite: Graduate standing and twelve semester hours of upper-division coursework in psychology.

**PSY 389K. Theory and Techniques of Assessment I.**

Introduction to intelligence and personality testing procedures, test interpretation, and ethical issues pertaining to clinical interviewing and testing. Includes instruction and feedback on clinical report writing. Three lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor received prior to registering.

**PSY 389L. Theory and Techniques of Assessment II.**

Clinical interviewing with adults and children. Observation and feedback for test administration and clinical skills. Three lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing, Psychology 389K, and consent of instructor.

**PSY 190, 290, 390. Research.**

Individual research. May be repeated for credit. Prerequisite: Graduate standing and twelve semester hours of upper-division coursework in psychology. Students must sign up in the Department of Psychology Graduate Office prior to registering.

**PSY 391N. Learning and Memory.**

Same as Neuroscience 391N. Presentation of contemporary approaches to the study of conditioning and learning at the behavioral level. Focuses on empirical data and theoretical analysis of acquisition and performance in Pavlovian and instrumental conditioning. Includes discussion of habituation, sensitization, stimulus control, and other paradigms for studying cognitive processes in nonverbal organisms. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**PSY 391P. Issues and Controversies in Statistical and Scientific Inquiry.**

Selected topics on the design and analysis of psychological research. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **PSY 392N. Fundamentals of Comparative Psychology.**

History and current status of comparative psychology, emphasizing several biological disciplines, including behavior genetics, ethology, evolutionary biology, and sociobiology. Three lecture hours a week for one semester. A core course option. Prerequisite: Graduate standing and consent of instructor.

### **PSY 393. Clinical Practicum I.**

Supervised practical experience in the use of clinical techniques. Three lecture hours a week for one semester, with ten to twelve hours of practicum experience to be arranged. Prerequisite: Graduate standing, Psychology 389K, and consent of instructor.

### **PSY 393K. Clinical Practicum II.**

Continuation of supervised practical experience in the use of clinical techniques. Three lecture hours a week for one semester, with ten to twelve hours of practicum experience to be arranged. Prerequisite: Graduate standing, Psychology 393, and consent of instructor.

### **PSY 394K. Fundamentals of Social and Personality Development.**

Survey of important theories, issues, and research in social and personality development. Three lecture hours a week for one semester. A core course option. Prerequisite: Graduate standing and consent of instructor.

### **PSY 394N. Fundamentals of Cognitive Development.**

Survey of important theories, issues, and research in the development of perception, language, and cognition. Three lecture hours a week for one semester. A core course option. Prerequisite: Graduate standing and consent of instructor.

### **PSY 394P. Seminars in Behavioral Neuroscience and Biopsychology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Current Topics in Behavioral Neuroscience.** Brain-behavior relationships, particularly recent research in behavioral neuroscience, including the anatomical and neurochemical mechanisms of behavioral events, and behavioral influences on the brain. Neuroscience 394P (Topic 1: Current Topics in Behavioral Neuroscience) and Psychology 394P (Topic 1) may not both be counted.

**Topic 2: Clinical Psychopharmacology.** Recent findings concerning the mechanisms of action and the behavioral effects of psychoactive drugs, particularly those used in psychiatry. Various drug types (such as sedative-hypnotics, hallucinogens, and drugs used to treat depression, schizophrenia, Parkinson's disease, and anxiety) and pathways in the brain are discussed to examine the neurochemical basis of psychiatric disorders and substance abuse.

**Topic 3: Neurobiology of Learning and Memory.** Neuroanatomical systems that are functionally related to basic forms of learning and memory in mammals. Neuroscience 394P (Topic 3: Neurobiology of Learning and Memory) and Psychology 394P (Topic 3) may not both be counted.

**Topic 4: Animal Communication.**

**Topic 7: Advanced Topics in Neuroanatomy.** Neuroanatomical systems and functions across species; advanced forms of neuroanatomy in mammals. Neuroscience 394P (Topic 4: Advanced Topics in Neuroanatomy) and Psychology 394P (Topic 7) may not both be counted.

**Topic 13: Foundations of Human Neuroimaging.** A survey of the foundations for neuroimaging research with a focus on cognitive

neuroscience. Describes the physical methods of image acquisition and physiological mechanisms used for functional imaging. Emphasis on magnetic resonance methods for structural and functional imaging. Surveys other imaging modalities, including positron emission tomography (PET), optical, and EEG/MEG electrical source localization. Only one of the following may be counted: Biology 381K (Topic: Foundations of Neuroimaging), Neuroscience 385L (Topic 6), 394P (Topic: Foundations of Magnetic Resonance Imaging Research), Psychology 394P (Topic: Foundations of Magnetic Resonance Imaging Research), 394P (Topic 13).

**Topic 16: Quantifying Brain Structure.** Concepts and hands-on applications for quantifying aspects of brain and cellular structure, with a focus on stereological approaches. Only one of the following may be counted: Neuroscience 385L (Topic 12: Quantifying Brain Structure), 394P (Topic: Quantitative Methods for Brain Structure), Psychology 394P (Topic 16), 394P (Topic: Quantitative Methods for Brain Structure).

**Topic 17: Behavioral Neuroendocrinology.** Current research in neuroendocrinology, including action of neuroendocrine systems on behavior, assays of substances in the blood to identify gene products, and examination of stress from neuroendocrine, behavioral, health, and immunity perspectives. Only one of the following may be counted: Neuroscience 385L (Topic 5: Behavioral Neuroendocrinology), 394P (Topic: Behavioral Neuroendocrinology), Psychology 394P (Topic 17), 394P (Topic: Behavioral Neuroendocrinology).

### **PSY 194Q, 394Q. Seminars in Clinical Psychology.**

One or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Empirically Supported Interventions with Adults.**

**Topic 4: Advanced Practicum in Clinical Psychology.**

**Topic 5: Advanced Practicum in Clinical Neuropsychology.** Restricted to clinical psychology majors. Additional prerequisite: Graduate standing and consent of instructor.

**Topic 6: Empirically Supported Interventions with Children.**

**Topic 17: Seminar in Positive Psychology.** A survey of the emerging field of positive psychology and well-being. Topics include character strengths and virtues, positive emotion, personality influences, motivation and goals, the happiness set point, and the issue of whether happiness can or should be changed.

**Topic 18: Research Methods in Clinical Psychology.** Advanced training in research methodology as it pertains to the field of clinical psychology.

**Topic 19: History and Professional Issues in Clinical Psychology.**

History and development of clinical psychology as a profession. Includes clinical psychology before World War II, the recognition of stress, the rise of evidence-based practice, professional psychology, and multicultural diversity.

**Topic 20: Diversity Issues in Research and Practice.** Methodological considerations involved in designing research projects, and clinical assessment and treatment concerns that arise when working with diverse populations.

**Topic 21: Neuropsychological Assessment.** Restricted to clinical psychology students. Examine the administration and scoring of a wide variety of neuropsychological measures, as well as test interpretation, case conceptualization and report writing skills. Includes a variety of neurological syndromes and grand rounds case presentations. Psychology 394Q (Topic: Neuropsychological Assessment) and 394Q (Topic 21) may not both be counted.

### **PSY 394S. Seminars in Developmental Psychology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Children's Racial/Gender Schemata.**

**Topic 3: Literacy Acquisition.**

**Topic 4: Psychological Processes in Family Violence.**

**Topic 5: Language and Conceptual Development.**

**Topic 6: Infant Perception and Cognition.**

**Topic 7: Professional Issues in Academia.**

### **PSY 394T. Seminars in Evolutionary Psychology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **PSY 394U. Seminars in Cognitive or Perception Psychology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 3: Introduction to Cognitive Science.** Same as Cognitive Science 380 (Topic 1: Introduction to Cognitive Science), Linguistics 392 (Topic 1: Introduction to Cognitive Science), and Philosophy 383C. Only one of the following may be counted: Cognitive Science 380 (Topic 1), Linguistics 392 (Topic 1), 393 (Topic: Introduction to Cognitive Science), 393 (Topic: Topics in Cognitive Science), Philosophy 383 (Topic: Introduction to Cognitive Science), 383C, Psychology 394U (Topic 3).

**Topic 4: Cognition.**

**Topic 6: Memory.**

**Topic 7: Speech Perception.**

**Topic 8: Topics in Vision and Hearing.** Current research in human vision and/or hearing. Neuroscience 385L (Topic 7: Topics in Vision and Hearing) or Psychology 394U (Topic 8) may not both be counted.

**Topic 9: Visual Perception.**

**Topic 12: Knowledge Representation.** Psychological approaches to the ways in which information is stored and processed, focusing on how particular assumptions and mental representation make tasks either easy or difficult to perform.

**Topic 13: Reasoning and Decision Making.** High-level cognitive processes of reasoning and decision making. Explores human rationality, analogical reasoning, causal reasoning, heuristics, and decision making in naturalistic settings.

**Topic 14: Topics in Systems Neuroscience.** Focuses on one or two topics and examines them in depth through group discussions of key scientific manuscripts. Discusses both classical studies and contemporary research. Only one of the following may be counted: Neuroscience 394P (Topic 8: Topics in Systems Neuroscience), Psychology 394U (Topic 14), 394U (Topic: Advanced Topics in Systems Neuroscience).

**Topic 15: Cognitive Neuroscience.** Readings, results, and discussion regarding cutting-edge work in the field. Emphasis on how computational models can be used to bridge brain and behavior. Biology 381K (Topic: Cognitive Neuroscience) and Psychology 394U (Topic 15) may not both be counted.

**Topic 16: Perception and Action.** Current topics in visually guided behavior, including eye movements, attention, and motor control, from behavioral, computational, and neurophysiological approaches. Neuroscience 394P (Topic 9: Perception and Action) and Psychology 394U (Topic 16) may not both be counted.

**Topic 17: Models of Cognition.** Formal models of cognition and related analysis, such as model selection statistics and Bayesian hierarchical parameter fitting.

**Topic 18: Advanced Topics in Perceptual Systems.** Readings, talks, and discussions on perceptual systems.

**Topic 19: Statistical Methods in Computational Neuroscience.**

Same as Neuroscience 394P (Topic 10: Statistical Methods in Computational Neuroscience). Introduction to statistical and computational methods for understanding information processing in the nervous system, with emphasis on neural coding and statistical modeling of neural responses. Prerequisite: Graduate standing and consent of instructor.

**Topic 20: Methods for fMRI.** Covers preprocessing and statistical analysis methods of fMRI data with tutorials and laboratory exercises. Psychology 394U (Topic: Methods for fMRI) and 394U (Topic 20) may not both be counted.

### **PSY 394V. Seminars in Social and Personality Psychology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 6: The Self.**

**Topic 7: Social Stereotypes.**

**Topic 8: Psychosomatic Processes.** Survey of theories and findings concerning the links between psychological states and health. Includes emotion, stress, coping, psychoneuroimmunology, disclosure, and the social correlates of health and illness.

**Topic 9: Language and Personality.** An exploration into computer-based methods used to study the links between word use and basic social and personality processes.

**Topic 10: Close Relationships.** Social psychological theory and research on the topic of close relationships.

**Topic 11: Social Neuroscience.** Introduction to psychological and neural foundational concepts in social neuroscience. Surveys current work in the field to examine how it may or may not contribute to the study of social psychology.

**Topic 12: Self and Identity.** Broad overview of self-related theory and research, with an emphasis on recent developments in the field. Includes the nature and structure of the self and forms of self-knowledge. Also explores the relationship between the self and group processes, close relationships, and gender. Three lecture hours a week for one semester. Psychology 394V (Topic: Self and Identity) and 394V (Topic 12) may not both be counted.

**Topic 13: Theory and Explanation in Social Psychology.** Examine different theoretical approaches in social psychology and the ability to critically evaluate the range and the limits of social psychological explanations from a meta-theoretical perspective. Address meta-theoretical principles in the construction and evaluation of social psychological theories, classic and contemporary approaches to understanding social psychological phenomena, and current directions in social psychological theorizing. Three lecture hours a week for one semester. Psychology 394V (Topic: Theory and Explanation in Social Psychology) and 394V (Topic 13) may not both be counted.

### **PSY 394W. Foundations of Social Psychology.**

Examine key theories and research in social psychology, from classic to current approaches. Three lecture hours a week for one semester. Psychology 394V (Topic: Foundations of Social Psychology) and 394W may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of graduate adviser.

### **PSY 395S. Fundamentals of Developmental Psychology.**

Emphasizes understanding the major theoretical approaches to the field, with an introduction to empirical work inspired by these theoretical perspectives. Three lecture hours a week for one semester. Psychology 394S (Topic: Fundamentals of Developmental Psychology) and 395S

may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **PSY 396. Advanced Behavior Pathology.**

Evaluation of the experimental and theoretical literature concerning major behavioral disorders. Three lecture hours a week for one semester. A core course option. Prerequisite: Graduate standing and consent of instructor.

### **PSY 396C. Child and Adolescent Psychopathology.**

The epidemiology, etiology, associated features, developmental course, and prognosis of childhood and adolescent behavior disorders. Three lecture hours a week for one semester. A core course option. Prerequisite: Graduate standing and consent of instructor.

### **PSY 396D. Clinical Psychopharmacology.**

Same as Neuroscience 396D. Recent findings concerning the mechanisms of action and the behavioral effects of psychoactive drugs, particularly those used in psychiatry. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **PSY 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in psychology, twelve semester hours of upper-division or graduate coursework in psychology, and consent of the graduate adviser; for 698B, Psychology 698A.

### **PSY 398T. Supervised Teaching in Psychology.**

Introduction to the teaching of psychology, including basic principles of adequate preparation, clear organization, student-teacher rapport, effective use of class time, clear and engaging communication of course content, fair and effective evaluation of students' understanding of subject matter, and ethical behavior. Also addresses issues concerning the relations of individual courses to other college courses, specific types of instruction (e.g., writing instruction), and the broad goals of colleges and universities. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **PSY 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree

## **Professional Courses**

# **Public Affairs Courses**

## **Public Affairs: P A**

### **Lower-Division Courses**

#### **P A 310C. Public Policy.**

Skill topics, including economics, quantitative methods, public financial management, policy development, and public administration. Three lecture hours a week for one semester. Public Affairs 310C and 330C may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

#### **P A 310S. Public Policy Seminar.**

Seminar with topics related to domestic or international public policy. Three lecture hours a week for one semester. Public Affairs 310S and 330S may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **P A 325. Topics in Policy.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Advanced Seminar in Ethical Leadership.** Public Affairs 325 (Topic: Advanced Seminar in Ethical Leadership) and 325 (Topic 1) may not both be counted.

**Topic 2: Defense Policy.** Only one of the following may be counted: Government 360N (Topic: Defense Policy), 360N (Topic: Defense Policy: Honors), Liberal Arts Honors 350 (Topic: Defense Policy), 350 (Topic 1), Public Affairs 325 (Topic: Defense Policy), 325 (Topic: Defense Policy: Honors), 325 (Topic 2).

### **P A 326. Topics in Policy.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **P A 330C. Public Policy.**

Skill topics, including economics, quantitative methods, public financial management, policy development, and public administration. Three lecture hours a week for one semester. Public Affairs 310C and 330C may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

### **P A 330S. Public Policy Seminar.**

Seminar with topics related to domestic or international public policy. Three lecture hours a week for one semester. Public Affairs 310S and 330S may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

### **P A 150. Public Service and Practice.**

Restricted to sophomore, junior, and senior-level undergraduates. Topics related to public service fields and the skills used by effective leaders. One lecture hour a week for one semester, with additional hours for some topics. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **P A 150S. Issues in Public Service.**

Topics in issues and decision-making that arise in the practice of public service. One lecture hour a week for one semester, with additional hours for some topics. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **P A 159R. Public Policy Issues.**

Current issues in public policy. The equivalent of one lecture hour a week for one semester, with additional hours to be arranged. May be repeated for credit when the topics vary. Offered on the pass/fail basis only.

**Topic 1: UT Energy Symposium.** Only one of the following may be counted: Public Affairs 158S (Topic: UT Energy Symposium), 159R (Topic: UT Energy Symposium), 159R (Topic 1), 159S (Topic: UT Energy Symposium). Offered on the pass/fail basis only. Additional prerequisite: Upper-division standing.

### **P A 159S. Public Policy Issues.**

Current issues in public policy. Hours to be arranged. May be repeated for credit when the topics vary.

### **P A 159T. Public Policy Issues.**

Current issues in public policy. Hours to be arranged. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## Graduate Courses

### **P A 280E. Gateway to Executive Leadership.**

Restricted to students in the Master of Public Affairs in Public Affairs-Option III program (Executive Master in Public Leadership) in the Lyndon B. Johnson School of Public Affairs. Intensive gateway course that serves as a foundation for the executive master's program. Subjects include strategic thinking, global and intergovernmental factors affecting organizational leadership, and ethical leadership. Two lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **P A 280L, 380L. Topics in Public Policy and Law.**

Various aspects of policy making, policy development, and communications at a variety of levels. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Policy Development and Law.** Examines effective policy making at all levels of government, including consideration of the legal process which provides critical context; the policy development process and its relationship to the rule of law; and key elements of public policy development, including ethics, decision making, leadership, and policy implementation.

**Topic 2: Policy and Law Placement.** Thorough examination of ethical issues and professional responsibilities and development of written and oral communication skills that are preparatory for field placement in policy and law.

**Topic 3: Law and Public Policy.** Examines the interconnection of public policy and law and how the two disciplines approach related issues; how legal structures and precedent shape and constrain policy choices; and how public policy informs the work of the courts.

### **P A 680P. Policy Research Project.**

Interdisciplinary research on a contemporary policy problem involving interaction with sponsoring organizations. Three lecture hours a week for two semesters, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: For 680PA, graduate standing and consent of instructor; for 680PB, Public Affairs 680PA.

### **P A 680W. Apprenticeship in Public Policy.**

Students work full-time for one whole-term summer semester and the following fall semester. Offered on the letter-grade basis only. Prerequisite: For 680WA, graduate standing and consent of instructor; for 680WB, Public Affairs 680WA.

### **P A 381E. Strategic Communications.**

Restricted to students in the Master of Public Affairs in Public Affairs-Option III program (Executive Master in Public Leadership) in the Lyndon B. Johnson School of Public Affairs. Topics related to a leader's role in strategic and effective communications with governing boards, legislative bodies, the media, the public, and employees. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### **P A 181W, 281W, 381W, 481W. Foundations of Policymaking.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of graduate adviser.

### **P A 882D. Policy Research Project.**

Interdisciplinary research on a contemporary policy problem involving interaction with an agency of government. Four lecture hours a week for two semesters. May be repeated for credit when the topics vary.

Prerequisite: For 882DA, graduate standing and consent of instructor; for 882DB, Public Affairs 882DA.

### **P A 382E. Executive Analytics.**

Restricted to students in the Master of Public Affairs in Public Affairs-Option III program (Executive Master in Public Leadership) in the Lyndon B. Johnson School of Public Affairs. Topics in the processes and analytical tools needed for decision-making by senior-level leaders. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### **P A 682G. Policy Research Project on Global Policy Issues.**

Interdisciplinary research on a contemporary global policy problem involving interaction with sponsoring organizations. Three lecture hours a week for two semesters, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: For 682GA, graduate standing and consent of instructor; for 682GB, Public Affairs 682GA.

### **P A 382W. Policy Analysis Seminar.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of graduate adviser.

### **P A 383C. Policy Development.**

Introduction to how public policy is developed and adopted in government systems. Covers the role of politics and institutions in implementing and managing policy. Normally taken during the first year. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **P A 383D. Politics and Process.**

Introduction to how public policy develops and is adopted in the American government system. Taught with a videoconference component. Normally taken during the first year. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **P A 383E. Executive Management.**

Restricted to students in the Master of Public Affairs in Public Affairs-Option III program (Executive Master in Public Leadership) in the Lyndon B. Johnson School of Public Affairs. Topics in leadership strategy, decision-making, and information management; the understanding and leading of organizational change initiatives for senior-level executives. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of instructor.

### **P A 383G. Policymaking in a Global Age.**

History, politics, and organization of how the United States makes and implements foreign policy decisions. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **P A 384C. Public Management.**

Covers the development and implementation of policy within an organizational environment, including the role of political and institutional factors, organization and management concepts, and human information resource issues. Normally taken during the first year. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **P A 384D. Public Management.**

Covers the development and implementation of policy within an organization environment, including the role of political and institutional factors, organization and management concepts, and human information resource issues. Normally taken during the first year. Three lecture hours

a week for one semester. May have a distance learning component. Prerequisite: Graduate standing.

**P A 387G. The Nature of the International System.**

Introduces systematic analysis of global policy, factors that motivate foreign policies and private decisions, and instruments used in the conduct of international relations. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**P A 187K, 287K, 387K, 487K. Advanced Topics in Public Policy.**

Issues in political values and ethics and in natural resources, transportation, health, environmental, international, regulatory, urban, and labor and human resources policy. For each semester hour of credit earned, one lecture hour a week for one semester. Public Affairs 387K and 388K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**P A 388D. Advanced Topics in Public Policy.**

Typical topics include issues in political values and ethics and issues in transportation, health, environmental, international, regulatory, urban, and labor and human resources policy. Three lecture hours a week for one semester. Some topics may be taught via Web-based instruction with no class meetings. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Perspectives on Public Policy.** Covers the art and science of policy formulation in the areas of economics, national security, monetary policy, science, technology, and trade. Examines the relationships among policy development processes at the federal, state, and local levels of government.

**Topic 2: Politics and Policies in an Aging Population.**

**Topic 3: Texas Health Policy.**

**P A 188F, 288F, 388F. Policy and Practice.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of graduate adviser, graduate standing.

**P A 188G. Topics in Global Policy Studies.**

Three lecture hours a week for five weeks, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**P A 388J. Writing for Policy.**

Three lecture hours a week for one semester. Public Affairs 388J and 388K (Topic: Writing for Policy) may not both be counted. Offered on the letter-grade basis only. Prerequisite: Consent of graduate adviser, graduate standing.

**P A 188K, 288K, 388K, 488K. Advanced Topics in Public Policy.**

Typical topics include issues in political values and ethics and in natural resources, transportation, health, environmental, international, regulatory, urban, and labor and human resources policy. For each semester hour of credit earned, one lecture hour a week for one semester. Public Affairs 387K and 388K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 7: International Development.** Public Affairs 188K, 288K, 388K, 488K (Topic 7) and 388K (Topic: International Development) may not both be counted.

**Topic 8: Introduction to Geographic Information Systems.** Public Affairs 188K, 288K, 388K, 488K (Topic 8) and 388K (Topic: Intro Geographic Info Systems) may not both be counted.

**Topic 9: Nongovernmental Organizations in Developing Worlds.** Public Affairs 188K, 288K, 388K, 488K (Topic 9) and 388K (Topic: Nongov Orgs in Devel Worlds) may not both be counted.

**Topic 10: Nonprofit Management and Strategy.** Public Affairs 188K, 288K, 388K, 488K (Topic 10) and 388L (Topic: Nonprofit Mgmt and Strategy) may not both be counted.

**Topic 11: Qualitative Methods for the Social Sciences.** Public Affairs 188K, 288K, 388K, 488K (Topic 11) and 397C (Topic: Qualitative Meths for Socl Sci) may not both be counted.

**P A 188L, 288L, 388L. Advanced Topics in Management.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**P A 388N. Invisible Global Market.**

Same as Advertising 391L and Latin American Studies 383. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 391L, Latin American Studies 383, Marketing 382 (Topic: Invisible Global Market), 382 (Topic: Invisible Global Marketing), 282, 382 (Topic 34), Middle Eastern Studies 382M, Public Affairs 388N. Offered on the letter-grade basis only.

**P A 188S. Advanced Topics in Public Policy.**

Three lecture hours a week for five weeks, or as required by the topic. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**P A 188W. Advanced Topics In Public Policy.**

The equivalent of one lecture hour a week. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**P A 389. Conference Course in Policy Analysis.**

Individual instruction related to selected aspects of professional theory and practice. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**P A 189C, 289C. Independent Study in Public Policy.**

Individual instruction related to selected aspects of professional theory and practice. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, consent of instructor and the graduate adviser.

**P A 389E. Research Capstone.**

Restricted to students in the Master of Public Affairs in Public Affairs-Option III program (Executive Master in Public Leadership) in the Lyndon B. Johnson School of Public Affairs. Integrative independent study organized around a project requiring students to draw upon previous studies, academic research, and practical applications. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only.

**P A 189W. Policy Portfolio.**

Restricted to students in the Public Affairs DC and Global Policy Studies DC programs. Integrative portfolio course organized around a project incorporating previous studies, academic research and practical application of work in a professional internship. The equivalent of one lecture hour a week for one semester, with additional hours to be arranged. May be taken three times for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

**P A 390C. Advanced Research Methods.**

Study of research methods, with a focus on those needed by doctoral students in public policy. Includes discussions of broad controversies in social science methodology and subjects not commonly covered in other first-year graduate courses. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

**P A 390D, 690D, 990D. Dissertation Proposal Preparation.**

Development and preparation of the dissertation proposal. Individual instruction. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, completion of all coursework, and consent of instructor.

**P A 390E. Research Design.**

Designed to provide a structured framework in which students can develop and apply methods training and produce a research paper. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

**P A 190G. Writing for Global Policy Studies.**

Instruction in the writing styles appropriate for professional careers in international settings. Three lecture hours a week for five weeks, or as required by the topic. May be repeated for credit, but only three semester hours may be counted toward the Master of Global Policy Studies degree. Prerequisite: Graduate standing and consent of the graduate adviser.

**P A 391. Public Financial Management.**

The budget process, budgetary methods, governmental accounting analysis of financial statements, government revenues, debt management, and other financial management techniques for public and nonprofit programs. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**P A 392C. Theory and Philosophy of Public Policy I.**

Explores the theoretical foundations of public policy. Includes political philosophy concepts and various theoretical approaches to the policy-making process. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

**P A 392D. Theory and Philosophy of Public Policy II.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing, Public Affairs 392C, and consent of the graduate adviser.

**P A 393G. Microeconomics.**

Principles of markets and market failures relevant to global policy studies. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**P A 393H. International Economics.**

Comparative advantage, international trade, international trade institutions, and agreements. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Public Affairs 393G or 393K.

**P A 393J. International Economics.**

Comparative advantage, international trade, international trade institutions, and agreements. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Public Affairs 393G or 393K.

**P A 393K. Applied Microeconomics for Policy Analysis.**

The use of economic reasoning in the development and implementation of public policy. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

**P A 393L. Advanced Policy Economics.**

Advanced topics in the application of economic reasoning to the development and implementation of policy. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Public Affairs 393K.

**P A 095. Public Affairs Colloquium.**

Guest lectures on topics to be announced. One lecture hour a week for one semester. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**P A 195C. Supervised Policy Research.**

Supervised, individual policy research experience on a topic chosen by the supervising faculty member. Conference course. Prerequisite: Graduate standing in public affairs and approval of the research proposal by the supervising faculty member and the graduate adviser.

**P A 195G. Global Policy Simulation.**

Supervised role-playing exercises on global policy. The equivalent of one lecture hour a week for one semester; additional hours may be required. Prerequisite: Graduate standing.

**P A 195W. Policy Simulation.**

Restricted to students in the Public Affairs DC and Global Policy Studies DC programs. Supervised role-playing exercises on public policy. The equivalent of one lecture hour a week for one semester; additional hours may be required. Prerequisite: Graduate standing.

**P A 196C. Supervised Public Service.**

Supervised, individual practical public service experience in an area chosen by the supervising faculty member. Conference course. May not be counted toward the Master of Public Affairs degree. Prerequisite: Graduate standing in public affairs and approval of proposal by the supervising faculty member and the graduate adviser.

**P A 396G. Internship in Global Policy Studies.**

Supervised participation in and observation of international issues as a working member of the staff in an agency of government, a nonprofit organization, or a public policy-related unit in the private sector. At least 400 hours of work over one semester. Prerequisite: Graduate standing, completion of one year in the Lyndon B. Johnson School of Public Affairs, and consent of the associate dean.

**P A 396K. Internship in Public Policy.**

Supervised participation and observation as a working member of the staff in an agency of government, a nonprofit organization, or a public policy-related unit in the private sector. Students work full time for one summer session or long-session semester. Offered on the credit/no credit basis only. Prerequisite: Completion of one year in the Lyndon B. Johnson School of Public Affairs and consent of the associate dean.

**P A 397. Introduction to Empirical Methods for Policy Analysis.**

Survey of the application of a broad range of quantitative models to policy analysis and managerial decision-making: optimization techniques based on calculus and linear programming, probability theory and decision analysis, sampling theory and hypothesis testing, regression analysis, and forecasting. Three lecture hours a week for one semester. Prerequisite: Graduate standing; and either one semester each of college

algebra, calculus, and statistics or a passing score on the validation exam offered before the beginning of the semester.

#### **P A 397C. Advanced Empirical Methods for Policy Analysis.**

Research methods, specialized empirical techniques, and data analysis as used in policy analysis and management. Three lecture hours a week for one semester. Some topics may be taught via Web-based instruction with no class meetings. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Public Affairs 397.

#### **P A 397D. Applied Quantitative Analysis I.**

Three lecture hours a week for one semester. Survey of the application of a broad range of quantitative models to policy analysis and managerial decision-making: optimization techniques based on calculus and linear programming, probability and theory and decision analysis, sampling theory and hypothesis testing, regression analysis, and forecasting. Prerequisite: Graduate standing; and either one semester each of college algebra, calculus, and statistics or a passing score on the validation exam offered before the beginning of the semester.

#### **P A 397G. Analytical Methods for Global Policy Studies.**

Descriptive statistics, inference, multivariate regression, qualitative methods, and case study methods applicable to global policy research. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and an undergraduate statistics course or a passing score on the validation exam.

#### **P A 098J. Joint Programs with Partner Institutions.**

Certification course for students enrolled in Lyndon B. Johnson School of Public Affairs interdisciplinary joint degree programs. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

#### **P A 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in public affairs and consent of the graduate adviser.

#### **P A 198T, 398T. Supervised Teaching in Public Affairs.**

Group meetings with the instructor, individual consultations, and reports. Mandatory for students seeking teaching assistant positions. For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

#### **P A 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

### **Professional Courses**

## **Public Health Courses**

### **Public Health: PBH**

#### **Lower-Division Courses**

##### **PBH 317. Introduction to Public Health.**

Overview and basic principles of public health, including the public health system, concepts and tools for measuring health in populations, the relationship between public health and the medical care system, and the role of law and government in public health. Three lecture hours a week for one semester. Biology 317 and Public Health 317 may not both be counted.

### **Upper-Division Courses**

#### **PBH 320. Topics in Health Informatics and Health Information Technology.**

Concepts, theories, and issues in health informatics and health information technology. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Biology 325 or 325H with a grade of C-.

##### **Topic 1: Introduction to Health Informatics and Healthcare Analytics.**

Restricted to students enrolled in the Health Informatics and Health Information Technology Professional Education Program. Consists of didactic lectures about the theoretical foundations of health informatics, database theory and management, healthcare standards, medical decision making, and healthcare analytics. Includes four hands-on workshops that relate to subjects taught in this course: HL7, SQL, Microsoft Excel, Microsoft Access, and Tableau. Also includes a research project over a six-eight week time period, production of a professional poster, and a presentation in a research poster forum judged by faculty, industry representatives, healthcare professionals, and policy makers.

**Topic 2: Fundamentals of Health Information Technology.** Restricted to students enrolled in the Health Informatics and Health Information Technology Professional Education Program. Explores healthcare policy (including privacy and security), current technologies (telemedicine, hospital information systems and computer and networking technologies) and the interoperable exchange of healthcare data.

**Topic 3: Project Management, Process Redesign and Quality Improvement.** Restricted to students enrolled in the Health Informatics and Health Information Technology Professional Education Program. Explores the basics of project management, including requests for proposals, scope, project planning, budgets and deliverables. Also discussed is an analysis of workflow processes and the impact of technology to improve these processes. Quality improvement, including tools to improve quality, is also presented. Includes several individual assignments and one team project.

**Topic 4: Operational Models of Healthcare Systems.** Restricted to students enrolled in the Health Informatics and Health Information Technology Professional Education Program. Explores the complex United States (US) health care system and explains the manner by which health care is delivered along a continuum of care. A special emphasis is placed on the operational delivery of ambulatory care and the manner in which acute care facilitates are evolving. Subjects include a comparison of the US health care system to health care delivery in other countries, population health and health care finance/insurance - including discussion on public (Medicare and Medicaid) and private (Managed Care) coverage. Descriptions of current and emerging payment mechanisms, revenue cycle management, risk management, overhead reduction and practice management are covered in detail to allow students a robust understanding of business issues associated with health care delivery.

##### **Topic 5: Technology Competencies in Health Informatics and Health Information Technology.**

Restricted to students enrolled in the Health Informatics and Health Information Technology Professional Education Program. Hands-on laboratory, team-taught by program faculty and staff with support from industry partners. Utilization of multiple health informatics and health information technology systems, health information exchange and interoperability software, and key analytics tools. This laboratory builds upon concepts taught in Public Health 320, Topic 1 and Public Health 320, Topic 2.

**Topic 6: Practicum and Professional Development in Health Informatics and Health IT.** Restricted to students enrolled in the Health Informatics and Health Information Technology Professional Education Program. Professional development lectures, activities, and a ten-day practicum experience off campus to experience working

with industry, healthcare systems, policy makers, and other experts in the field.

### **PBH 323. Introduction to Health Informatics.**

Introduces theoretical foundations of health informatics, database theory and management, healthcare standards, and medical decision making. Only one of the following may be counted: Biology 337 (Topic: Introduction to Health Informatics), 353, Public Health 323.

### **PBH 330. Topics in Public Health.**

Concepts, theories, and issues in public health. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Biology 325 or 325H with a grade of at least C-.

### **PBH 334. Global Health.**

An investigation of global health issues, including the principles of global health, the burden of morbidity and mortality, health determinants, health care and public health systems, socioeconomic development, and human rights. Three lecture hours a week for one semester. Biology 334 and Public Health 334 may not both be counted. Prerequisite: Public Health 356 and 358D with a grade of at least C- in each.

### **PBH 137, 237, 337, 437. Selected Topics in Public Health.**

Recent developments and research methods in the field of public health will be explored. For each semester hour of credit earned, one lecture hour a week for one semester. Some topics may require additional hours. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **PBH 338. Environmental Health.**

Introduction to the major areas of environmental health presented in the context of epidemiology, toxicology, and health effects. Subjects include water and air quality, solid and liquid waste, hazardous chemicals, radiation, infectious agents, food safety, and occupational health. Three lecture hours a week for one semester; several field trips to be arranged outside of the lecture. Prerequisite: Public Health 356 and 358D with a grade of at least C- in each.

### **PBH 341R. Public Health Research.**

Students conduct public health research, mentored by professionals at public health practice agencies or faculty at graduate schools of public health throughout Texas. An average of twelve hours of fieldwork a week for a total of at least 180 hours. May be repeated for credit. Prerequisite: Biology 325 or 325H with a grade of at least C-; students must also submit a proposal to the instructor.

### **PBH 354. Epidemiology I.**

Restricted to public health majors. Introduction to basic principles and concepts in epidemiology, including descriptive epidemiology, association and causation, basic epidemiological study design, evidence-based decision analysis, and applications of epidemiology methods to basic and clinical science. Three lecture hours a week for one semester. Prerequisite: Public Health 317 with a grade of at least C-; and credit or registration for Biology 325 or 325H, and Statistics and Data Sciences 320E (or credit for Statistics and Data Sciences 328M).

### **PBH 356. Health Behavior Theory and Practice.**

Restricted to public health majors. An introduction to social and behavioral theories that inform the discipline of public health and applied public health practice, including practical examples of how these theories inform and influence health promotion to understand and modify health-related behaviors. Focus on health inequities and inequalities of populations living in the United States and how underlying cultures and social structures impact the health of individuals and communities. Three lecture hours a week for one semester. Only one

of the following may be counted: Public Health 356, 368D, or Sociology 368D. Prerequisite: The following coursework with a grade of at least C- in each: Public Health 354, Biology 325, Statistics and Data Sciences 328M.

### **PBH 358D. Health Policy and Health Systems.**

Explore an overview of the U.S. health care system and the impact of policy and legislative actions on the essentials of organization, financing, management, and delivery of private and public health care. Three lecture hours a week for one semester. Only one of the following may be counted: Health and Society 330, Public Health 358D, Sociology 358D. Prerequisite: The following coursework with a grade of at least C- in each: Public Health 354, and Statistics and Data Sciences 320E (or 328M).

### **PBH 361P. Public Health Internship.**

Includes a public health research project off campus at a public health practice agency or a graduate school of public health. The equivalent of twelve lecture hours a week for one semester, with additional hours to be arranged. May be repeated once for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Biology 325 or 325H and Statistics and Data Sciences 328M with a grade of at least C- in each; and completion and approval of an internship application, available online at the Public Health website.

### **PBH 362. Epidemiology II: Quantitative Methods.**

Introduction to advanced applied statistical and analytical techniques used for public health research and practice. Examine both continuous and categorical data often used in public health research and apply appropriate data analysis techniques for purposes of data collection, analysis, and evaluation. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and the following coursework with a grade of at least C- in each: Public Health 354, and Statistics and Data Sciences 328M (or Statistics and Scientific Computation 328M).

### **PBH 363. Project Management, Planning, and Evaluation.**

Investigate the importance of and the key approaches used to lead, conduct and evaluate effective public health programs. Examine practical management and program evaluation tools and techniques such budgeting, proposal/application development and use of logic models. Apply these concepts and tools within the context of service delivery and policy making in the field of public health. Recommended for students who are interested in the Certified Associate in Project Management (CAPM) exam from the Project Management Institute. Three lecture hours a week for one semester. Prerequisite: The following coursework with a grade of at least C- in each: Public Health 354 and Statistics and Data Sciences 328M (or Statistics Scientific Computation 328M).

### **PBH 364. Field Epidemiology.**

Explore an overview and basic principles of field epidemiology including initiating operations, collecting and managing data, analyzing and interpreting data, developing interventions, and communicating during investigations. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and the following coursework with a grade of at least C- in each: Public Health 354 and Statistics and Data Sciences 328M (or Statistics Scientific Computation 328M).

### **PBH 365. Public Health Informatics.**

Examine fundamental concepts in the application of informatics and information technology to the practice of public health. Investigate how interoperable information systems are used to facilitate a variety of public health functions, including outbreak management, bio-surveillance, disease prevention, and electronic laboratory reporting. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and the following coursework with a grade of at least C- in

each: Public Health 354 and Statistics and Data Sciences 328M (or Statistics Scientific Computation 328M).

### **PBH 379H. Honors Tutorial Course.**

Supervised individual research on a special topic in public health, leading to an honors thesis and an oral presentation. May be based on laboratory, library, or field research. Three lecture hours a week for one semester. May be repeated once for credit. May be repeated for credit. Prerequisite: Upper-division standing; a university grade point average of at least 3.0; admission to the public health honors program; and consent of the honors adviser.

## **Graduate Courses**

## **Professional Courses**

# **Public Relations Courses**

## **Public Relations: P R**

### **Lower-Division Courses**

#### **P R 305. Fundamentals of Public Relations.**

An introduction to public relations history and practice. Three lecture hours a week for one semester.

#### **P R 305S. Introduction to Integrated Communication for Sports.**

Same as Advertising 305S. Examination of the mass media industry in relation to the field of sports. Focus on the "off-the-field" industries of advertising, marketing, and public relations that impact sports; rights fees contracts; pre-game shows; gameday production; in-stadium activities; and press coverage. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 305S, 378 (Topic 7: Integrated Communication for Sports), Kinesiology 352K (Topic: Integrated Communication for Sports), Public Relations 305S.

#### **P R 309. Introduction to Advertising and Public Relations Research.**

Same as Advertising 309R. Introduction to concepts and methods of statistics, with emphasis on analyzing personal and group behaviors. Includes exploratory data analysis, correlation and regression, descriptive statistics, sampling distributions, confidence intervals, and hypothesis testing. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 309R, 378 (Topic: Introduction to Advertising and Public Relations Research), Public Relations 309, 378 (Topic: Introduction to Advertising and Public Relations Research).

#### **P R 316. Creativity and American Culture.**

Same as Advertising 316. A cross-disciplinary view of the creative process and creative products. The conceptual core of film, fine arts, advertising, architecture, and literature. Three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or the Bachelor of Science in Public Relations. Fulfills the communication and culture requirement in the College of Communication.

#### **P R 317. Writing for Public Relations.**

Restricted to public relations majors. Introduction to writing skills for the media, including readability, clarity, verification, and style. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Advertising 318J with a grade of at least B.

## **Upper-Division Courses**

### **P R 320. Integrated Communication for Nonprofit Organizations.**

Same as Advertising 320. Explores integrated communication and branding in a variety of nonprofit settings. Examines the strategic, integrated use of multiple communication approaches, including advertising, public relations, new media, promotions, sponsorships, and special events. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 320, 378 (Topic 17), Public Relations 320, 378 (Topic 5).

### **P R 321. Leadership and Ethics.**

Same as Advertising 321. Explores leadership, communication, ethics, and the ability to lead others ethically and effectively. Examine concepts and frameworks related to skills that are integral to ethical, effective leadership. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 321, 378 (Topic 11), Public Relations 321, 378 (Topic: Leadership and Ethics).

### **P R 322. Health Communication: Messages, Campaigns, and the Media.**

Same as Advertising 322. Covers the development of effective health messages, the design of health campaigns, and investigate the role of the media in influencing people's health and perceptions of health. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 322, 378 (Topic: Health Communication), Public Relations 322.

### **P R 323. Public Communication of Science and Technology.**

Same as Advertising 323. Explores the rapidly growing field of science communication. Examines the intersection of science, media, and society, focusing on media's impact on how people come to understand, perceive, and act relative to scientific issues. Special attention will be directed toward the strategic communication of science and maximizing scientists' engagement with public audiences. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 323, 378 (Topic: Public Comm of Science/Tech), Public Relations 323, 378 (Topic: Public Comm of Science/Tech).

### **P R 324. Communicating Sustainability.**

Same as Advertising 324. Focuses on persuasion in the context of environmental attitudes and behaviors. Explores how humans think about and interact with the environment, paying particular attention to climate change. Drawing on theory and examples, examines the challenges and opportunities that arise when people try to communicate about the environment and change individual attitudes and behaviors. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 324, 378 (Topic: Communicating Sustainability), Public Relations 324, 378 (Topic: Communicating Sustainability).

### **P R 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Public Relations.**

Enrollment in this course is to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Public Relations; transfer credit is awarded for work in an affiliated studies program. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

**P R 332. Technology Marketing and Advertising.**

Same as Advertising 332. Explores case histories, interviews with leading technology advertising and marketing executives, and latest trends in digital advertising, both mobile and social, as well as its impact across marketing segments and industries. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 332, 378 (Topic 23), Public Relations 332.

**P R 332C. New Media Entrepreneurialism.**

Same as Advertising 332C. Covers real life experience/exposure with a series of interviews with real-life practitioners from social media, venture capital, and others with expertise in the field. Explores important trends in digital content and digital business models; a primer for those who wish to learn about entrepreneurialism, technology, and it's intersection with media. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 332C, 378 (Topic: New Media Entrepreneurialism), Public Relations 332C, 378 (Topic: New Media Entrepreneurialism).

**P R 332D. Entrepreneurialism in Communication.**

Same as Advertising 332D. Project-oriented exercise where small teams conceptualize a business idea in communications, curate the insights and opinions of fellow team members, and ultimately develop a business plan around their new endeavor. A panel of local entrepreneurs will provide feedback and critique. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 332D, 378 (Topic: Entrepreneurialism in Comm), Public Relations 332D.

**P R 339K. Digital Graphic Communication.**

Same as Advertising 339K. Introduction to the fundamentals of good graphic design, as well as production basics. Develops digital design skills using industry-standard software, from print (Adobe InDesign, Photoshop, Illustrator) to motion (Adobe Premiere, AfterEffects) and interactive (HTML, CSS, WordPress). Assumes no prior knowledge. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 339K, 378 (Topic: Digital Graphic Communication), Public Relations 339K, 378 (Topic: Digital Graphic Communication).

**P R 339L. Brand Storytelling.**

Same as Advertising 339L. Examination of how classic elements of storytelling, semiotics, and symbolism can be used to create and manage a modern brand's story and 'meaning'. Create visual, verbal, and video examples of brand storytelling that go beyond traditional advertising and public relations. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 339L, 378 (Topic: Brand Storytelling), Public Relations 339L, 378 (Topic: Brand Storytelling).

**P R 341S. Research in Sports Communication and Media.**

Same as Advertising 341S. An introduction to advertising and public relations research and methodology for sports. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

**P R 347D. Entertainment Press and Public Relations - LA.**

Same as Advertising 347D. Restricted to students admitted to the Semester in Los Angeles Program. Introduction to the roles of the news and entertainment press, and publicity, promotion and public relations in the entertainment industry. Examines how these fields are linked, integrated or in tension, and provides a historical context for understanding the press and publicity sides of the entertainment business. Explores what makes marketing/advertising, PR and journalism in the entertainment industry distinct from these practices in other realms, while examining the components of current industry and practice. Three lecture hours a week for one semester. Advertising 347D

and Public Relations 347D may not both be counted. May be repeated for credit. Prerequisite: Upper-division standing.

**P R 348. Public Relations Techniques.**

Analysis and production of print, electronic, and oral messages to achieve organizational objectives; fundamentals of media relations; Internet applications. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; Advertising 318J with a grade of at least B; and one of the following with a grade of at least C: Journalism 317 or Public Relations 317.

**P R 348S. The Business of Sports Media.**

Same as Advertising 348S and Journalism 348G. Examination of the business of sports-related media, including over-the-air television, cable, satellite television, print, radio, social media, and internet-based media, and the impact of such media on sports presentation and development, professional franchises, colleges, and conferences. Emphasis on how the business of sports media generates revenue and content, and the business models for each type of media, the challenges to such models, and the likely future changes to them. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 348S, 378 (Topic: The Business of Sports Media), Communication 325 (Topic: The Business of Sports Media), Journalism 348G, 349T (Topic: The Business of Sports Media), Public Relations 348S, 378 (Topic: The Business of Sports Media).

**P R 350, 650. Public Relations Internship.**

Restricted to public relations majors. Internship to be arranged by student and approved by instructor. For 350, an average of 12 hours of work a week, for a total of 180 hours a semester or summer session. For 650, an average of 24 hours of work a week, for a total of 360 hours a semester or summer session. Offered on the pass/fail basis only. Prerequisite: Advertising 344K, 345J, and Public Relations 348 with a grade of at least C- in each and a University GPA of 2.0.

**P R 350S. Internship in Sports Media.**

Same as Advertising 350S. Restricted to Texas Program in Sports and Media students. Practical work experience in sports media. Internship to be arranged by student and approved by instructor. The equivalent of three lecture hours a week for one semester. May not be counted toward the Bachelor of Science in Advertising or the Bachelor of Science in Public Relations degrees. Offered on the pass/fail basis only. Prerequisite: Upper-division standing; a University grade point average of at least 2.0; Advertising 305S or Public Relations 305S; and three additional hours from the Sports Media Certificate approved coursework list.

**P R 151. Public Relations Internship.**

Designed for students who have completed a three-semester-hour internship in public relations. Internship and discussion hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Public Relations 350 or 650; consent of the public relations internship coordinator; and completion of the major requirements for enrollment in an internship course.

**P R 352. Strategies in Public Relations.**

Restricted to public relations majors. Strategies relating to public relations disciplines, including the management of external, internal, community, nonprofit, and media issues, and public relations marketing programs. Three lecture hours a week for one semester. Prerequisite: Public Relations 348 with a grade of at least C-.

**P R 353. Advertising and Public Relations Law and Ethics.**

Same as Advertising 353. Restricted to advertising and public relations majors. The equivalent of three lecture hours a week for one semester.

Advertising 353 and Public Relations 353 may not both be counted. Fulfills the communication and culture requirement in the College of Communication. Prerequisite: Advertising 318J with a grade of at least B.

#### **P R 364. Immersive Experiences.**

Same as Advertising 364. Develop an understanding of an audience, the language of development, and awareness of the affordances of each medium to use them effectively in designing immersive user experiences. Work on a real-world client project, which will also be prepared for entry into an immersive storytelling competition. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 364, 378 (Topic: Immersive Experiences), Public Relations 364, 378 (Topic: Immersive Experiences). Prerequisite: Upper-division standing and consent of instructor.

#### **P R 365. Audience Development and Engagement.**

Same as Advertising 365. Examine the latest methods used to better understand audiences and their motivations. Explore new approaches and tools for engaging audiences in different content strategies, and what metrics can be used to measure their engagement in ways that prove valuable to content creators, marketers, and audiences. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 365, 378 (Topic: Audience Development & Engagement), Public Relations 365, 378 (Topic: Audience Development & Engagement). Prerequisite: Upper-division standing and consent of instructor.

#### **P R 367. Integrated Communications Management.**

Public relations as a managerial problem-solving process; strategic management of programs to enhance public-organizational relationships. Three lecture hours a week for one semester. Advertising 370J and Public Relations 367 may not both be counted. Prerequisite: Advertising 344K, 345J, and Public Relations 348 with a grade of at least C- in each; Marketing 320F or 337 with a grade of at least C-.

#### **P R 367E. Experimental Storytelling.**

Same as Advertising 367. Working with real-world clients, examine design thinking and human-computer interaction techniques while ideating, synthesizing concepts, creating user experiences, and developing a proof of concept (PoC) exemplary towards becoming an experience designer. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 367, 378 (Topic: Experimental Storytelling), Public Relations 367E, 378 (Topic: Experimental Storytelling). Prerequisite: Upper-division standing and consent of instructor.

#### **P R 369. Social Media.**

Same as Advertising 369. Introduction to social networking platforms and their application in relation to media plans, brand building, and insights. Three lecture hours a week for one semester. May be repeated once for credit. Only one of the following may be counted Advertising 369, 378 (Topic: Social Media), Public Relations 369, 378 (Topic: Social Media). May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and consent of instructor.

#### **P R 377H. Integrated Communications Campaigns: Honors.**

Restricted to students in the Advertising or Public Relations Honors Program. The concept of media mix; matching product, consumer, and media profiles; and the conception, research, planning, and execution of advertising campaigns. Special emphasis on advanced copywriting, layout, and production for print and broadcast media. Students usually participate in major national contests involving brand development in advertising strategies. Three lecture hours a week for one semester, with additional hours to be arranged. Only one of the following may be counted: Advertising 373, 373H, Public Relations 377H, 377K. Offered

on the letter-grade basis only. Prerequisite: Upper-division standing, Advertising 370J with a grade of at least C- or Public Relations 367 with a grade of at least C-, a University grade point average of at least 3.50, admission to the Advertising or Public Relations Honors Program, and consent of the undergraduate adviser.

#### **P R 377K. Integrated Communications Campaigns.**

Integration of theory, research methods, and communication techniques for planning, implementing, and evaluating public relations campaigns; client proposal writing and presentation. Three lecture hours a week for one semester. Only one of the following may be counted: Advertising 373, 373H, Public Relations 377H, 377K. Prerequisite: Public Relations 367 with a grade of at least C-.

#### **P R 377M. Media Studies.**

Topics in media and its effects on advertising and public relations strategies. The equivalent of three lecture hours a week for one semester; additional hours may be required for some topics. Advertising 377M and Public Relations 377M may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 2: Advanced Studies in Media Sales.** Same as Advertising 377M (Topic 2). Examination of advertising media sales beyond audience measurement techniques, and quantitative and qualitative data. The equivalent of three lecture hours a week for one semester. Advertising 377M (Topic 2) and Public Relations 377M (Topic 2) may not both be counted. Additional prerequisite: Upper-division standing, Advertising 345J with a grade of at least C, and consent of instructor.

#### **P R 378. Advanced Studies in Public Relations.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Prerequisites vary with the topic.

**Topic 3: Black Music and the Media.**

**Topic 4: Health Communication: Theory and Practice.**

**Topic 6: Public Relations in Entertainment.**

**Topic 21: Semester in Los Angeles: Entertainment Promotion, Press, and Public Relations.** Same as Advertising 378 (Topic 21). Restricted to students admitted to the Semester in Los Angeles Program. Consider the core disciplines of research, creative, distribution, advertising, publicity, and promotion as they apply to entertainment. Only one of the following may be counted: Advertising 378 (Topic: Entrtmnt Prss/Public Reltn-L A), 378 (Topic 21), Public Relations 378 (Topic: Entrtmnt Prss/Public Reltn-L A), 378 (Topic 21).

#### **P R 378S. Special Topics in Sports Media.**

Topics in sports media related to issues in traditional and new media as they affect sports and entertainment advertising and public relations. The equivalent of three lecture hours a week for one semester. Advertising 378S and Public Relations 378S may not both be counted unless the topics vary. May be repeated for credit when the topics vary.

**Topic 1: Advertising and Public Relations for Sports.** Same as Advertising 378S (Topic 1). Three lecture hours a week for one semester. Advertising 378S (Topic 1) and Public Relations 378S (Topic 1) may not both be counted.

**Topic 2: Legal Aspects of Sports and Media.** Same as Advertising 378S (Topic 2). Three lecture hours a week for one semester. Advertising 378S (Topic 2) and Public Relations 378S (Topic 2) may not both be counted.

**Topic 3: Return on Investment of Sports Media.** Same as Advertising 378S (Topic 3). Three lecture hours a week for one semester. Advertising 378S (Topic 3) and Public Relations 378S (Topic 3) may not both be counted.

**Topic 4: Analysis of Sports and Entertainment Audiences.** Same as Advertising 378S (Topic 4). Three lecture hours a week for one semester. Advertising 378S (Topic 4) and Public Relations 378S (Topic 4) may not both be counted.

**Topic 5: Ethics and Social Issues in Sports Branding.** Same as Advertising 378S (Topic 5). Three lecture hours a week for one semester. Advertising 378S (Topic 5) and Public Relations 378S (Topic 5) may not both be counted.

**Topic 6: Sports Audiences and Nontraditional Media.** Same as Advertising 378S (Topic 6). Three lecture hours a week for one semester. Advertising 378S (Topic 6) and Public Relations 378S (Topic 6) may not both be counted.

**Topic 7: Contributions of Sports and Entertainment to Education and Health.** Same as Advertising 378S (Topic 7). Three lecture hours a week for one semester. Advertising 378S (Topic 7) and Public Relations 378S (Topic 7) may not both be counted.

**Topic 8: College Sports Media.** Same as Advertising 378S (Topic 8). An examination of the history of college sports media, with an emphasis on the evolution of sports coverage from NCAA-controlled limited broadcasting of football and basketball, to present day intercollegiate athletics coverage available via multiple outlets.

**Topic 9: Sports Contract Negotiation Techniques.** Same as Advertising 378S (Topic 9). Strategies and techniques for successfully negotiating contracts, with a special emphasis on the negotiation of sports contracts.

**Topic 10: Leadership and Administration in Sports Organizations.** Same as Advertising 378S (Topic 10). Designed to develop marketing skills related to events, programs, products, and facilities in the sports management field.

**Topic 11: Sports and Social Media.** Same as Advertising 378S (Topic 11). Designed to provide an understanding of and experience with the components and best practices of social media, marketing, and communications as they relate to sports entities and the sports field as a whole.

**Topic 12: Sports Audiences.** Same as Advertising 378S (Topic 12). An exploration of marketing innovations in sports to attract audiences, and the use of sports media by advertisers, sponsors, and other entities to target various customer groups.

**Topic 13: Business of Sports Television.** Same as Advertising 378S (Topic 13). Only one of the following may be counted: Advertising 378 (Topic: Business of Sports Television), 378S (Topic: Business of Sports Television), 378S (Topic 13), Public Relations 378 (Topic: Business of Sports Television), 378S (Topic: Business of Sports Television), 378S (Topic 13).

#### **P R 179, 279, 379. Public Relations Problems.**

Individual instruction. Prerequisite: Written consent of instructor received prior to registering.

### **Graduate Courses**

#### **P R 391K. Seminar in Public Relations.**

Survey and analysis of current public relations issues and practices. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **Professional Courses**

## **Public Safety Courses**

### **Public Safety: PSF**

#### **Lower-Division Courses**

##### **PSF 311. Social Work and Public Safety.**

Restricted to social work majors and pre-majors. Focuses on the intersection between social work, public safety, law, and human services.

Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **Upper-Division Courses**

#### **PSF 360K. Public Safety Field Immersion.**

Restricted to social work majors and pre-majors. Explores the intersection of social work and public safety. Experiential learning in approved public safety-related settings and a weekly one-hour seminar. One lecture hour a week and completion of 120 hours of service learning for one semester. Offered on the pass/fail basis only.

### **Graduate Courses**

#### **Professional Courses**

## **Race, Indigeneity, and Migration Courses**

### **Race, Indigeneity, and Migration: RIM**

#### **Lower-Division Courses**

##### **RIM 301. Introduction to Race, Indigeneity, and Migration.**

Conceptually explore key terms in the study of race, indigeneity and migration. Examine how race, indigeneity and migration have been central to the development of modern nations, economies and cultures through different epochs in United States history. Three lecture hours a week for one semester.

##### **RIM 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Race, Indigeneity, and Migration.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **RIM 320C. Power and Place: Making Texas History.**

Same as African and African Diaspora Studies 320C, History 365G (Topic 21), and Mexican American Studies 320C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 320C, 370 (Topic: Power/Place: Making Tex His), History 365G (Topic: Power/Place: Making Tex His), 365G (Topic 21), Mexican American Studies 320C, Race, Indigeneity, and Migration 320C. Prerequisite: Upper-division standing.

#### **RIM 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Race, Indigeneity, and Migration.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **RIM 330N. Migration Crisis.**

Same as African and African Diaspora Studies 360J, Asian American Studies 330N, and Mexican American Studies 364J. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360J, 374D (Topic: Migration Crisis), Asian American Studies 330N, 335 (Topic: Migration Crisis),

Mexican American Studies 364J, 374 (Topic: Migration Crisis), Race, Indigeneity, and Migration 330N. Prerequisite: Upper-division standing.

### **RIM 350. Contemporary Issues in Race, Indigeneity, and Migration.**

Explore how race, indigeneity and migration function as ongoing "events" which determine present-day governmental policies, markets and cultural logics. Three lecture hours a week for one semester. Prerequisite: Race, Indigeneity, and Migration 301 and upper-division standing.

### **RIM 378. Capstone Seminar.**

Identify a research question and conduct a semester-long research project on a specific issue related to race, indigeneity and migration. Examine an overview of the major theoretical and methodological schools of thought across the fields of racial and ethnic studies, indigenous studies and migration studies. Three lecture hours a week for one semester. Prerequisite: Race, Indigeneity, and Migration 350 and upper-division standing.

## **Graduate Courses**

### **Professional Courses**

## **Radio-Television-Film Courses**

### **Radio-Television-Film: RTF**

#### **Lower-Division Courses**

#### **RTF 301N. Introductory Topics in Radio-Television-Film.**

Restricted to non-radio-television-film majors only. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **RTF 301R. Topics in Radio-Television-Film.**

Restricted to radio-television-film majors. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **RTF 301S. Social Activism in Film.**

Restricted to non-radio-television-film majors. Explores ways filmmakers express ideas about important movements and social issues. Three lecture hours and one two-and-one-half-hour screening each week for one semester. Radio-Television-Film 301N (Topic: Social Activism in Film) and 301S may not both be counted.

#### **RTF 303C. Introduction to Media and Entertainment Industries.**

Introduction to Media and Entertainment Industries provides a foundational social science understanding of media and entertainment industries. Drawing on insights from media studies, management, and sociology, uses social science theories, methods, and practices to examine social, political, and economic forces that shape and are shaped by media production, distribution, and monetization. Three lecture hours per week for one semester. Additional hours may be arranged.

#### **RTF 304. Storytelling in Film and Television.**

Restricted to non-radio-television-film majors. Study of the way meaning is structured and perceived in film, television, and digital/interactive media; introduction to basic storytelling techniques in multiple media formats. Includes viewing and analysis of movies, television series, video games, and various other media narratives. Three lecture hours and two and one-half hours of film screenings a week for one semester. Radio-Television-Film 304 and 317 may not both be counted.

#### **RTF 306 (TCCN: COMM 2366, DRAM 2366). Introduction to World Cinema History.**

Survey of the aesthetic, cultural, economic, political, and technological trends impacting motion pictures around the world from their origins in

the late nineteenth century through the present. Three lecture hours and one two-and-one-half-hour of film screenings a week for one semester. Only one of the following may be counted: Radio-Television-Film 306, 314, 321D or 322C.

#### **RTF 307. Media and Society.**

Concentrates on media's role in society, including our contributions as participants and audiences, as well as consequences to our social norms, political engagement, and identities. Considers how media work within local, national, and global contexts, addressing social continuities and disruptions, organizational processes, policies and politics, and economic conditions. Three lecture hours a week for one semester. An additional discussion section may also be required.

#### **RTF 308. Development of Film and Media.**

Study of historical development of the film, radio, television, and digital media industries. Overview of the cultural, social, economic, and technological contexts in which media have been produced and circulated. Three lecture hours and two and one-half hours of film screening a week for one semester. A one-hour discussion section may also be required.

#### **RTF 317. Narrative Strategies and Media Design.**

Study of the way meaning is structured and perceived in film, television, and digital/interactive media; introduction to basic storytelling techniques in multiple media formats. Includes viewing and analysis of movies, television series, video games, and various other media narratives. Three lecture hours, one hour discussion, and one two-and-one-half hour film screening a week for one semester. Students may not enroll in this course more than twice. Radio-television-film 304 and 317 may not both be counted. Prerequisite: Three semester hours of lower-division coursework in radio-television-film.

#### **RTF 318. Introduction to Image and Sound.**

Exploration of fundamental film and digital production concepts and techniques through lectures, projects, and laboratory work. Three lecture hours and three laboratory hours a week for one semester. Students may not enroll in this course more than twice. Prerequisite: Six semester hours of lower-division coursework in radio-television-film.

#### **RTF 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Radio-Television-Film.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Radio-Television-Film. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

#### **RTF 321C. History of American Television.**

Survey of the evolution of United States television programming, aesthetics, production, and policy. Three lecture hours and two and one-half hours of film screenings a week for one semester. Radio-Television-Film 316 and 321C may not both be counted. Prerequisite: Upper-division standing.

#### **RTF 321D. Film History to 1960.**

Introductory survey of the history of world cinema to 1960. Explores the development of film as a narrative medium, key filmmakers, films, and of the origins of the main elements of film grammar. Three lecture hours and two and one-half hours of film screenings a week for one semester. Radio-Television-Film 321D and 322C may not both be counted. Radio-

Television-Film 306 and 321D may not both be counted. Prerequisite: Upper-division standing.

### **RTF 322D. Film History 1960 to Present.**

Three lecture hours and two and one-half hours of film screenings a week for one semester. Radio-Television-Film 322C and 322D may not both be counted. Prerequisite: Upper-division standing.

### **RTF 323C. Screening Race.**

Introduction to the study of race and ethnicity in U.S. film, television, and new media. Includes focus on media histories, media criticism, production strategies, and U.S. audiences. Three lecture hours and two and one-half hours of film screenings a week for one semester. Only one of the following may be counted: Communication 316M, Radio-Television-Film 316M, 323C. Prerequisite: Upper-division standing.

### **RTF 324C. Introduction to Global Media.**

Introduces the role of global media as a set of texts, technologies, and industries that shape our identities, our social worlds, and our political practices. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 351G, 359S (Topic: Introduction to Global Media), Radio-Television-Film 312C, 324C. Prerequisite: Upper-division standing.

### **RTF 324L. Topics in the Entertainment Professions.**

Restricted to radio-television-film majors. Contemporary issues, practices, and skills related to communication and the entertainment industries, including studies in the business of entertainment, the entertainment professions, the creative process, and contemporary Hollywood cinema. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

**Topic 5: Careers in Entertainment-Los Angeles.** Explores specific career interests with a focus on skills, experience, training, and contacts that are required in Los Angeles. Taught in Los Angeles, California. Only one of the following may be counted: Communication 324 (Topic: Careers in Entertainment), 324 (Topic 5), Radio-Television-Film 324L (Topic: Careers in Entertainment), 324L (Topic 5).

### **RTF 326C. Tech Culture.**

Examines ideas about the relationship between technology and culture, how US culture views technology, and the historically contingent design, development and use of different media and communication technologies. Three lecture hours a week for one semester. Only one of the following may be counted: Communication 309, Journalism 351T, Journalism 359S (Topic: Tech Culture), Radio-Television-Film 309, 326C. Prerequisite: Upper-division standing.

### **RTF 327C. Digital Remix Cultures.**

Restricted to radio-television-film majors. Introduction to the study of digital remix cultures. Subjects will include medium specific mash-up cultures and platforms (image, audio, video), authorship and ownership, political remix and culture jamming, and memes. Assignments will merge theory and practice. Three lecture hours and two laboratory hours a week for one semester. Radio-Television-Film 319 and 327C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **RTF 328C. Gender and Media Culture.**

Same as Women's and Gender Studies 324C. Critical analysis of media and its interrelation with issues of gender. Three lecture hours and one two-and-one-half hour film screening a week for one semester. Only one of the following may be counted: Radio-Television-Film 325C, 328C, 359 (Topic: Women and Media Culture), 359S (Topic 2), Women's and Gender

Studies 324 (Topic: Gender and Media Culture), 324C. Prerequisite: Upper-division standing.

### **RTF 329C. Digital Media Production.**

Interactive course designed to teach foundational Digital Media Production tools. Apply digital media tools and techniques to a variety of tasks in the pipeline of production from concept, storyboard, layout to compositor, VFX, CG and interactive design. Three lecture hours and three laboratory hours each week for one semester. Radio-Television-Film 329C and 344M (Topic: Digital Media Production may not both be counted. Prerequisite: Forty-five hours of coursework.

### **RTF 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Radio-Television-Film.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Radio-Television-Film. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **RTF 330C. Semester in Los Angeles: Principles of Production.**

Restricted to non-radio-television-film majors admitted to the Semester in Los Angeles Program. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **RTF 330K. Introduction to Research Methods.**

Introduction to applied media research and research criticism; fundamentals of audience analysis, survey design, experimental and field research, content analysis. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **RTF 330L. Internship in Film and Electronic Media.**

Restricted to radio-television-film majors. Practical work experience related to the study of film, television, radio, or other media. Students must make their own arrangements to secure relevant internships. The equivalent of ten lecture hours a week for one semester. Radio-Television-Film 330L and 330M may not both be counted. Offered on the pass/fail basis only. Prerequisite: Upper-division standing.

### **RTF 330M. Internship in Digital Media.**

Restricted to non-radio-television-film majors. Practical work experience in digital media and postproduction media. Students must make their own arrangements to secure relevant internships. The equivalent of ten lecture hours a week for one semester. Radio-Television-Film 330L and 330M may not both be counted. Offered on the pass/fail basis only. Prerequisite: Upper-division standing.

### **RTF 130N, 330N, 630N. Internship in Media Industries.**

Practical work experience related to media industries. Internships to be secured by students. For 130N and 330N, an average of 10 work hours a week for one semester; for 630N, an average of 20 work hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Upper-division standing.

### **RTF 331K. Film, Video, and Television Theory.**

Survey of basic theories that seek to explain the relationships between film, video, television, and their respective audiences. Three lecture hours and one two-and-a-half hour film screening a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### **Topic 1: Cult Movies and Gender Issues.**

**Topic 2: Television and Theories of Gender.**

**Topic 4: Feminist Media Theory.** Survey of basic feminist media theory.

**Topic 5: Screen Theory.** Survey of basic screen theory.

**Topic 7: Stardom and Celebrity Culture.** Same as Women's and Gender Studies 324J. Survey of the construction and meanings of stardom in film, television, and new media. Subjects include links with the media industries; stardom and race, class, gender, and sexuality; and new permutations of celebrity culture. Three lecture hours and one two-and-a-half hour film screening a week for one semester. Only one of the following may be counted: Radio-Television-Film 331K (Topic: Critical Studies of Film and Television Stardom), 331K (Topic 6), 331K (Topic 7), Women's and Gender Studies 324 (Topic: Critical Stds Film/TV Stardom), 324J. Additional prerequisite: Upper-division standing.

**Topic 8: Transmedia Storytelling.** Radio-Television-Film 331K (Topic: Transmedia Storytelling) and 331K (Topic 8) may not both be counted.

**RTF 331L. Corporate and Instructional Video.**

Restricted to radio-television-film majors. Study, design, production, use, and evaluation of corporate and instructional video materials. Three lecture hours a week for one semester, with studio hours to be arranged. Prerequisite: Upper-division standing.

**RTF 331P. Topics in New Communication Technologies.**

Applications and potential effects of new telecommunications and information technologies in the home, workplace, and in education, social services, and politics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 3: Internet Cultures.** Radio-Television-Film 331P (Topic: Internet Cultures) and 331P (Topic 3) may not both be counted.

**Topic 4: Video Game Culture and Criticism.** Radio-Television-Film 331P (Topic: Video Game Culture & Criticism) and 331P (Topic 4) may not both be counted.

**RTF 331Q. Topics in Digital Media.**

Survey, analyze, and assess current and emergent digital and social media technologies and cultures. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper division standing

**RTF 331R. Topics in New Media.**

Students produce projects in either film, video, computer animation, collage, sculpture, assemblage, soundscape, or performance. Prior experience in one or more media is helpful but not necessary. Three lecture hours and one and one-half studio hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For radio-television-film majors, twelve semester hours of lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.

**RTF 333. Introduction to Screenwriting.**

An introduction to screenwriting for features, short films, documentaries, and television. Lectures explore the basic theory of story, character, and structure. Students write original screenplays during workshop hours. Three lecture hours and two workshop hours each a week for one semester. Creative Writing 325S and Radio-Television-Film 333 may not both be counted. Prerequisite: For radio-television-film majors, upper-division standing and twelve semester hours of lower-division coursework in radio-television-film; for non-majors, upper-division standing.

**RTF 335. Television Analysis and Criticism.**

Analysis of critical methods, selected television programs, and selected critics. Practice in written criticism required of all students. Three lecture hours a week for one semester, with two-and-one-half-hours of film screening a week. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Television in the Post-Network Era.** Examination of contemporary television's formal-aesthetic traits as well as its shifting position as a cultural, social, political and industrial force. Exploration of how television is being transformed as it converges with other digital technologies. Only one of the following may be counted: Radio-Television-Film 335 (Topic: Contemporary TV Criticism), 335 (Topic: TV Analysis and Criticism), 335 (Topic 1), and 335 (Topic 3).

**Topic 2: Race, Class, and Gender in American Television.** Same as Women's and Gender Studies 324D. Surveys history and contemporary debates regarding the construction of race, class, gender and sexual orientation in U.S. television from the late 1940s through the present day and related issues of television aesthetics, production practices, audiences, and advocacy. Three lecture hours a week for one semester, with two-and-one-half-hours of film screening a week. Only one of the following may be counted: American Studies 321 (Topic: Race/Class/Gender in Amer TV), Mexican American Studies 374 (Topic: Race/Class/Gender in Amer TV), Radio-Television-Film 335 (Topic 2) and 335 (Topic: Race/Class/Gender in Amer TV), Women's and Gender Studies 324 (Topic: Race, Class and Gender in American Television), 324D. Additional prerequisite: Upper division standing.

**Topic 3: Contemporary Television Criticism.** Only one of the following may be counted: Radio-Television-Film 335 (Topic: Contemporary TV Criticism), 335 (Topic: TV Analysis and Criticism), 335 (Topic 1), and 335 (Topic 3).

**Topic 4: Queer Television.** Only one of the following may be counted: Radio-Television-Film 335 (Topic: Queer Television), 335 (Topic 4), Women's and Gender's Studies 335 (Topic: Queer Television).

**RTF 336. Special Projects in Radio-Television-Film.**

Restricted to radio-television-film majors. Comprehensive research or creative projects in areas of special interest developed and executed by the student under faculty supervision. Individual instruction. May be taken twice for credit. May be repeated for credit. Prerequisite: Upper-division standing and consent of the department.

**RTF 337. Radio Fundamentals.**

Fundamentals of audio program production. Students create either brief or long audio programs. Three lecture and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Radio-Television-Film 317 and 318 with a grade of at least B-, and six additional hours of lower division coursework in Radio-Television-Film.

**Topic 1: Audio Visions.** Radio-Television-Film 337 (Topic: Audio Visions) and 337 (Topic 1) may not both be counted.

**Topic 2: Ears Only: Audio Storytelling.** Audio production and post for storytelling using voice, actuality, music, ambiences and sound effects. Structuring stories for audio only, plus microphone and recorder techniques, mono, stereo, and binaural recording, field mixers, basic Pro Tools, signal processing, and noise reduction; applicable to sound for picture as well.

**RTF 337P. Multitrack Audio Production.**

Restricted to radio-television-film majors. Principles and practice of multitrack audio production. Three lecture hours a week for one semester, with studio hours to be arranged. Prerequisite: Upper-division standing; Radio-Television-Film 317 and 318 with a grade of at least B-

in each; and six semester hours of lower-division coursework in radio-television-film with a grade of at least C in each course.

### **RTF 340. Studio Production.**

Introduction to production of television programs, including the multicamera format. Three lecture hours and three laboratory hours a week for one semester. May not be taken concurrently with Radio-Television-Film 366 or 366K. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, and six additional semester hours of lower-division coursework in radio-television-film.

**Topic 1: Drama/Music Production.**

**Topic 2: Public Affairs Production.**

**Topic 4: Multi-Camera Television Directing.** Radio-Television-Film 340 (Topic: Multi-Cam Television Directing) and 340 (Topic 4) may not both be counted.

### **RTF 341. Audio Production: Sound for Picture.**

Theory and practice of producing quality audio for television, film, and other picture media. Includes basic editing on a digital audio workstation. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, and six additional semester hours of lower-division coursework in radio-television-film.

**Topic 1: Audio Production Into Post.** Designed to help students understand high quality audio production and the tools and techniques to get it, finishing with sound editing for picture and basic mixing. Radio-Television-Film 341 (Topic: Audio Production) and 341 (Topic 1) may not both be counted.

### **RTF 341C. Advanced Audio: Sound Design and Postproduction.**

Sound design and editing, and fundamentals of postproduction audio mixing. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, and six additional hours of lower-division coursework in Radio-Television-Film.

**Topic 1: Sound Design and Mixing.** Sound design and editing, and post-production sound process for film, television, and immersive media. Radio-Television-Film 341C (Topic: Sound Design and Mixing) and 341C (Topic 1) may not both be counted.

**Topic 2: Sound for Picture: Editing and Mixing.**

### **RTF 342. Topics in Global Media.**

Study of political, social, cultural, and economic factors affecting the use and impact of communication systems in an international context. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: National Media Systems.**

**Topic 2: Comparative Media Systems.**

**Topic 4: Participatory Media.**

**Topic 6: Development Communication.** Same as Middle Eastern Studies 341 (Topic 4). Middle Eastern Studies 341 (Topic 4) and Radio-Television-Film 342 (Topic 6) may not both be counted.

**Topic 7: Global Media Systems.**

**Topic 8: Development Communication and Social Change.** Examines the strategic use of communication technologies and processes to engage in social change in a global context. Only one of the following may be counted: Latin American Studies 322 (Topic: Dev Comm and Social Change), Middle Eastern Studies 342 (Topic: Dev Comm and

Social Change), Radio-Television-Film 342 (Topic: Dev Comm and Social Change), 342 (Topic 8).

### **RTF 342S. Topics in Global Media.**

Study of political, social, cultural, and economic factors affecting the use and impact of communication systems in an international context. Three lecture hours and one two-and-one-half-hour screening a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Global Hollywood.** Radio-Television-Film 342 (Topic: Global Hollywood) and 342S (Topic 1) may not both be counted.

**Topic 2: Indian Cinema.** Radio-Television-Film 342 (Topic: Indian Cinema) and 342S (Topic 2) may not both be counted.

### **RTF 343. Advanced Video Production.**

Restricted to radio-television-film majors. Advanced study in film, television, and media production. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Radio-Television-Film 366K.

**Topic 1: Advanced Narrative Production.** Individual and group production of short films using high-definition video. Additional prerequisite: Radio-Television-Film 366K (Topic 2: Narrative Production).

**Topic 2: Advanced Documentary Production.** Individual and group production of a documentary, from research and preproduction to completion. Additional prerequisite: Radio-Television-Film 366K (Topic 3: Documentary Production)

**Topic 3: Advanced Soundstage Production.** Group production of short films using the Hollywood soundstage as the primary model.

**Topic 4: Creating Cross-Platform Fundraising Media.** Small group production of client-commissioned fundraising media and an exploration of the realm of independent production contracting. Radio-Television-Film 343 (Topic 4) and 344M (Topic: Cross-Platform Content Creation) may not both be counted. Additional prerequisite: Upper-division standing, and Radio-Television-Film 346, 366D, 366K, or 368 with a grade of at least B.

**Topic 5: Developing Independent Feature Films.** Restricted to radio-television-film majors. Group research and lectures about producing an independent feature film. Three lecture hours and three laboratory hours a week for one semester. Radio-Television-Film 343 (Topic: Developing Indie Feature Films) and 343 (Topic 5) may not both be counted. Prerequisite: Upper-division standing and Radio-Television-Film 340 or 366K.

**Topic 6: Advanced Music Film Production.** Only one of the following may be counted: Radio-Television-Film 343 (Topic 6), 366K (Topic: Music Film Production), 366K (Topic 5).

**Topic 8: Cinema Laboratory.** Explores the cinematic form on an elemental level through the making of several short films. Utilizes cinema-making skills through attention to process and experimentation in order to move to a higher level of precision. Radio-Television-Film 343 (Topic: Cinema Laboratory) and 343 (Topic 8) may not both be counted.

### **RTF 343C. Acting for Filmmakers.**

Restricted to radio-television-film majors. Explores core elements of acting technique through scene study, improvisation, and other exercises. Three lecture hours a week for one semester. Radio-Television-Film 343 (Topic: Acting for Filmmakers) and 343C may not both be counted. Prerequisite: Upper-division standing; and Radio-Television-Film 366D or 366K.

### **RTF 343D. Cinematography.**

Restricted to radio-television-film majors. Visual storytelling and the art of cinematography through practice in a workshop environment. Three lecture and three laboratory hours a week for one semester. Radio-Television-Film 343D and 368 (Topic 2) may not both be counted. Prerequisite: Upper-division standing; Radio-Television-Film 366K.

### **RTF 343M. Master Class.**

Restricted to radio-television-film majors. Incorporates a guest speaker series, focused on a particular topic for the semester. Students conduct research, coordinate and attend the speaker series, and pursue creative projects related to the semester's topic. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, and six additional semester hours of lower-division coursework in radio-television-film.

### **RTF 343N. Advanced Three-Dimensional Production.**

Carries the principles developed in Radio-Television-Film 366M into a variety of hands-on production settings and projects, including large-crew productions at Austin City Limits Live at the Moody Theater, as well as smaller shoots in a variety of other studios and locations. Three lecture hours and three laboratory hours a week for one semester, with additional hours to be arranged. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Radio-Television-Film 366M.

### **RTF 344M. Special Applications of Digital Media Production.**

Special topics in digital media theory, design, or development. May include visual effects and motion graphics or digital media and digital art. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For Radio-Television-Film majors, upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B-, and six additional hours of coursework in Radio-Television-Film; for non-majors, upper-division standing.

**Topic 1: Interactive Digital Storytelling.** Use of digital tools to create original web-based audiovisual productions and the study of impact of digital media and technology on traditional film and video production.

**Topic 3: Introduction to Visual Effects and Motion Graphics.** Designed to introduce students to the core concepts and techniques used in visual effects and motion graphics. Subjects include, but are not limited to, compositing, animation, particles, and greenscreen. Radio-Television-Film 344M (Topic: Visual Effects) and 344M (Topic 3) may not both be counted.

**Topic 4: Interactive Media and Game Development.** Radio-Television-Film 344M (Topic: Interactive Media and Game Development) and 344M (Topic 4) may not both be counted.

**Topic 5: Writing for Interactive Games and Media.** Explores storytelling possibilities of interactive mediums. Develop the skills and knowledge necessary to create characters, storylines, and dialogue for digital mediums. Only one of the following may be counted: Radio-Television-Film 344M (Topic: Wri for Interact Games & Media), 344M (Topic 5), Theatre and Dance 355T (Topic: Writing for Interactive Games). Additional prerequisite: Radio-Television-Film 333.

**Topic 6: Introduction to 3D Animation.** Only one of the following may be counted: Radio-Television-Film 344M (Topic: Computer Animation and 3-D Modeling), 344M (Topic 2), 344M (Topic 6).

**Topic 7: Post Production Techniques.** Radio-Television-Film 344M (Topic: Post Production Techniques) and 344M (Topic 7) may not both be counted.

**Topic 8: CGI for Film and Games.** Radio-Television-Film 344M (Topic: CGI for Film and Games) and 344M (Topic 8) may not both be counted

### **RTF 344N. Advanced Applications of Digital Media Production.**

Advanced topics in digital media theory, design, and development. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Radio-Television-Film 344M.

**Topic 1: Advanced Visual Effects and Motion Graphics.** Explores advanced subjects, concepts, and techniques in compositing, image and projection, digital painting, and animation. Radio-Television-Film 344N (Topic: Advanced Visual Effects) and 344N (Topic 1) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: Radio-Television-Film 344M (Topic 3: Introduction to Visual Effects and Motion Graphics).

**Topic 2: Advanced Effects: Modeling.** Offered on the letter-grade basis only. Additional prerequisite: Radio-Television-Film 344M (Topic 6) (or Radio-Television-Film 344M (Topic 2: Computer Graphics for Film and Games)).

**Topic 3: Advanced Effects: Rigging.** Offered on the letter-grade basis only. Additional prerequisite: Radio-Television-Film 344M (Topic 6) (or Radio-Television-Film 344M (Topic 2: Computer Graphics for Film and Games)).

**Topic 4: Undergraduate Animation Thesis.** Each student will produce a two- to ten-minute animated short film. Radio-Television-Film 344N (Topic: Undergraduate Animation Thesis) and 344N (Topic 4) may not both be counted. Offered on the letter-grade basis only. Additional prerequisite: One of the following: Radio-Television-Film 343N, 344M (Topic 3), 344N (Topic 1), 351C, 351D, or 366M.

**Topic 7: Advanced 3D Animation.** Hands-on approach to learning character animation in Maya. Introduction to the fundamental methods needed to create animated characters, including techniques used to create motion. Only one of the following may be counted: Radio-Television-Film 344N (Topic: Character Animation in 3D), 344N (Topic 5), and 344N (Topic 7). Offered on the letter-grade basis only. Additional prerequisite: Radio-Television-Film 344M (Topic 6: Introduction to 3D Animation) or 344M (Topic 2: Introduction to 3D Animation).

**Topic 8: Immersive Filmmaking.** Radio-Television-Film 344N (Topic: Immersive Film Making), and 344N (Topic 8) may not both be counted. Offered on the letter-grade basis only.

**Topic 9: Motion Capture Studio.** Only one of the following may be counted: Radio-Television-Film 344N (Topic: Motion Capture Studio) and 344N (Topic 9). Offered on the letter-grade basis only.

### **RTF 344T. Game Development Capstone.**

Capstone courses in game development. Three lecture hours and three lab hours per week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

**Topic 1: Game Development Capstone: Two Dimensional Games.** Radio-Television-Film 344N (Topic 6: Game Development Capstone: 2D Games) and 344T (Topic 1) may not both be counted.

**Topic 2: Game Development Capstone: Three Dimensional Games.** Radio-Television-Film 344N (Topic: Game Devel Capstone: 3D Games) and 344T (Topic 2) may not both be counted.

### **RTF 345. Studies in Film History.**

Critical assessment of major genres, periods, movements, and personalities in United States and international film history. Three lecture hours and one two-and-one-half-hour screening a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Third World Cinema: Asia and the Middle East.**

**Topic 2: Israeli Cinema and Television.**

**Topic 3: History of Mexican Cinema.**

**Topic 4: Latin American Cinema.**

**Topic 5: Third World Cinema: Africa and the Americas.**

**Topic 6: Experimental Film and Video.** Critical assessment of the history and current trends in experimental film and video. Radio-Television-Film 331K (Topic: Experimental Film and Video) and 345 (Topic 6) may not both be counted.

**Topic 7: British Film and Television.** Radio-Television-Film 345 (Topic: History of British Film) and RTF 345 (Topic 7) cannot both be counted.

**Topic 8: Social Documentary.** Radio-Television-Film 345 (Topic: Social Documentary) and 345 (Topic 8) may not both be counted.

**Topic 9: Women Behind The Camera.** Radio-Television-Film 345 (Topic: Women Behind the Camera) and 345 (Topic 9) may not both be counted.

**Topic 10: Chinese Auteurs.** Radio-Television-Film 345 (Topic: Chinese Auteurs) and 345 (Topic 10) may not both be counted.

**Topic 11: Contemporary Horror.** Radio-Television-Film 345 (Topic: Contemporary Horror) and 345 (Topic 11) may not both be counted.

### **RTF 345C. Experimental Media and the Art of Disruption.**

Explores experimental and avant-garde media. Through the intentional disruption of mainstream media aesthetics and conventions, experimental media artists confront, question, and recontextualize the traditional narratives and conventions of commercial media. Examines a portfolio of experimental work across genre, including narrative and non-narrative film, title sequences, the use of media performance and gallery installations, public art, online interactive formats, and experimental video games. Three lecture hours per week for one semester. Radio-Television Film 345 (Topic: Exper Media, Art of Disruption) and 345C may not both be counted. Prerequisite: Upper-division standing.

### **RTF 346. Introduction to Editing.**

Theory and practice of video and film editing techniques. Three lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, and six additional semester hours of lower-division coursework in radio-television-film.

### **RTF 347C. The Business of Media.**

Survey of business practices in film, television, music, and digital media industries: development, production, distribution, and exhibition. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Upper-division standing; additional prerequisites vary with the topic.

**Topic 1: Semester in Los Angeles: How Hollywood Works.** Same as Communication 324 (Topic 1). Restricted to students admitted to the Semester in Los Angeles Program. Explores the commercial challenges that face producers and network and studio executives, and addresses the continual struggle between creativity and the bottom line. Taught in Los Angeles, California. Only one of the following may be counted: Communication 324 (Topic: How Hollywood Works-L A), (Topic 1), Radio-Television-Film 347C (Topic: How Hollywood Works-L A), (Topic 1).

### **RTF 347D. Media Industries.**

Examination of the economics and the production, research, management, and distribution practices of the film and electronic media industries. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing

### **RTF 347E. Advanced Editing.**

In-depth look at the principles, techniques, and aesthetics of editing; building a broad background for students' future professional development. Designed to provide a basic-to-intermediate level of

familiarity with Avid editing software, by discussing and working on provided narrative, documentary, and technical exercises; various approaches to editing style in each case. Three lecture hours and one two-and-one-half-hour film screening a week for one semester. Only one of the following may be counted: Radio-Television-Film 344 (Topic: Advanced Editing), 346E (Topic: Advanced Editing), and 347E. Prerequisite: Radio-Television-Film 346 with a grade of at least B.

### **RTF 347P. The Business of Hollywood.**

Explores contemporary media industries: how media industries operate, and the "big picture" of the contemporary film, television, and digital media landscape. Large-scale issues being faced by those working in the entertainment industry - including the impact of conglomerate ownership, regulation, globalization, and digitization on creative practices and work roles. Three lecture hours and one one-and-a-half-hour speaker series each week for one semester. Radio-Television-Film 347C (Topic: Business of Hollywood) and 347P may not both be counted. Prerequisite: Upper-division standing.

### **RTF 348. Studies in Media Industries.**

Examination of the economics and the production, research, management, and distribution practices of the film and electronic media industries. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

#### **Topic 1: Semester in Los Angeles: Telling and Selling the Story.**

Restricted to students admitted to the Semester in Los Angeles Program. Explore the development of skills in the process by which literary material makes it from page to screens.

#### **Topic 2: Semester in Los Angeles: Development Process of Film and Television.**

Same as Communication 324 (Topic 2). Restricted to students admitted to the Semester in Los Angeles Program. Examines the development process in both film and television; preparing pitches, coverage, and development notes; identifying strengths and weaknesses of literary material typical of that submitted to studios, networks, and production companies. Taught in Los Angeles, California. Only one of the following may be counted: Communication 324 (Topic: Development Process of Film and Television), 324 (Topic 2), Radio-Television-Film 348 (Topic: Development Process of Film and Television), 348 (Topic 2).

#### **Topic 3: Semester in Los Angeles: Inside the Music Industry.**

Same as Communication 324 (Topic 3). Restricted to students admitted to the Semester in Los Angeles Program. Examine how the music industry really works, how it relates to other divisions of the entertainment industry, and the effects that changing technologies have on it. Only one of the following may be counted: Communication 324 (Topic: Inside The Music Industry), 324 (Topic 3), Radio-Television-Film 348 (Topic: Inside The Music Industry) and 348 (Topic 3).

#### **Topic 4: Semester in Los Angeles: New Media and Emerging Entertainment.**

Same as Communication 324 (Topic 4). Restricted to students admitted to the Semester in Los Angeles Program. Explores burgeoning areas of digital entertainment including broadband, video-on-demand, interactive television, mobile entertainment, and interactive digital gaming. Taught in Los Angeles, California. Only one of the following may be counted: Communication 324 (Topic: New Media and Emerging Entertainment), 324 (Topic 4), Radio-Television-Film 348 (Topic: New Media and Emerging Entertainment), 348 (Topic 4).

#### **Topic 5: Semester in Los Angeles: Working Hollywood Writer.**

Restricted to students admitted to the Semester in Los Angeles Program Radio-Television-Film 348 (Topic: Working Hollywood Writer-LA) and 348 (Topic 5) may not both be counted.

### **RTF 348C. Introduction to Digital Production.**

Introduction to fundamental production concepts and techniques through lectures, projects, and lab experiences. Develop a storyteller's point of view and explore the ability to create works with visual, aural, and narrative structures. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **RTF 350L, 650L. Semester in Los Angeles Internship.**

Restricted to students in the Semester in Los Angeles Program. Practical work experience related to the study of film, television, radio, or other media. Students must make their own arrangements to secure relevant internships. For 350L, an average of 10 hours of work a week, for a total of at least 150 hours a semester or summer term; for 650L, an average of 20 hours of work a week, for a total of at least 300 hours a semester or summer term. Communication 350L, 650L and Radio-Television-Film 350L, 650L may not both be counted. Offered on the pass/fail basis only. Prerequisite: Upper-division standing

### **RTF 650N. Semester in New York Internship.**

Restricted to students in the Semester in New York Program. Internships to be arranged by student and approved by instructor. An average of 20 hours of work a week, for a total of at least 300 hours a semester or summer term. Offered on the pass/fail basis only. Prerequisite: Upper-division standing.

### **RTF 351C. Introduction to Two-Dimensional Animation.**

Restricted to radio-television-film majors. Theory and practice of digital graphics and animation techniques. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: For Radio-Television-Film majors, Radio-Television-Film 318, and nine additional semester hours of coursework in radio-television-film; for non-majors, upper-division standing.

### **RTF 351D. Advanced Two-Dimensional Animation.**

In-depth study of two-dimensional animation techniques and an introduction to stop-motion animation, green screen techniques, and postproduction effects. Three lecture hours a week for one semester. Only one of the following may be counted: Radio-Television-Film 344M (Topic: Advanced Digital Animation), 344M (Topic: Two-Dimensional Animation and Motion Graphics), 351D. Prerequisite: Radio-Television-Film 351C.

### **RTF 352. Global Media and Area Studies.**

Study of political, social, cultural, and economic factors affecting the use and impact of communication systems in selected regions, such as South Asia, Latin America, Middle East, Europe, East Asia, and Africa. Three lecture hours a week for one semester. Some topics may also require two and one-half film screening hours a week. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Media and the Middle East.** Addresses the role of media in the Middle East, considering communication texts, processes and industries in political, social, economic, and cultural contexts. Radio-Television-Film 342 (Topic: Media and the Middle East) and 352 (Topic 1) may not both be counted.

**Topic 2: German Media: Print to Television.** Same as German, Scandinavian, and Dutch Studies 341S. Examine the history of media technology and its cultural and political implication in the German (speaking) context. Three lecture hours a week for one semester. Only one of the following may be counted: German, Scandinavian, and Dutch Studies 330 (Topic: German Media: Print to TV), 341S, Radio, Television, and Film 352 (Topic: German Media: Print to TV), 352 (Topic 2). Additional prerequisite: Upper-division standing.

### **RTF 658. Undergraduate Animation Thesis.**

Restricted to radio-television-film majors. Two-semester course in which each student will produce a two- to ten-minute animated short film as director, animator, and/or sound designer. Three lectures hours a week for two consecutive semesters. Only one of the following may be counted: Radio-Television-Film 344N (Topic: Undergraduate Animation Thesis), 344N (Topic 4), 658. Offered on the letter-grade basis only. Prerequisite: For 658A, upper-division standing; and two of the following: Radio-Television-Film 341, 341C, 344M (Topic 2), 344M (Topic 3), 344N (Topic 1), 344N (Topic 5), 344N (Topic 6), 351C, or 351D; or consent of instructor; for 658B, Radio-Television-Film 658A.

### **RTF 359. Studies in Media and Culture.**

Special topics related to the critical analysis of media in cultural contexts. Three lecture hours a week for one semester. Radio-Television-Film 359 and 359S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 3: Asian American Media Cultures.** Same as Asian American Studies 320D. Examine popular and critical roles, representations, and politics of Asian Americans in U.S. media including Hollywood cinema, U.S. network and cable television, Asian American independent film, and online media. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic: Asian American Media Cultures), 320 (Topic 4), 320D, Radio-Television-Film 359 (Topic: Asian American Media Cultures), 359 (Topic 3). Additional prerequisite: Upper-division standing.

**Topic 6: Gender, Race, and Sexuality in Sports Media.** Same as Women's and Gender Studies 324F. Three lecture hours and one two-and-one-half-hour film screening a week for one semester. Only one of the following may be counted: Radio-Television-Film 359 (Topic 6), 365 (Topic: Gender/Race/Sexlty Sport Media), Women's and Gender Studies 324 (Topic: Gender/Race/Sexlty Sport Media), 324F. Additional prerequisite: Upper-division standing.

**Topic 7: Race and Digital Media Culture.** Only one of the following may be counted: Journalism 356R, Radio-Television-Film 359 (Topic: Race/Digital Media Cultures), 359 (Topic 7).

**Topic 8: Women and Sports Media.**

**Topic 9: Chicana/o Film.** Same as Mexican American Studies 370. Investigate representations of Chicanas/os, both on-screen and behind the scenes of U.S. films. Explore films made by, for, and about Chicanos/as and Mexican-Americans from the Chicano Movement of the 1960s to the present day. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 370, 374 (Topic: Chicana/o Film), Radio-Television-Film 359 (Topic: Chicana/o Film), 359 (Topic 9). Additional prerequisite: Upper-division standing.

**Topic 10: Latina Filmmakers.** Same as Mexican American Studies 370C and Women's and Gender Studies 340 (Topic 99). Explore the history of U.S.-based Latina filmmakers (primarily directors, producers, and screenwriters) and the images they have created. Examine early representations of Latinas in Hollywood film and consider how Latina filmmakers have gained increasing control over their own images, particularly since the 1990s. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 370C, 374 (Topic: Latina Filmmakers), Radio-Television-Film 359 (Topic: Latina Filmmakers), 359 (Topic 10), Women's and Gender Studies 340 (Topic: Latina Filmmakers), 340 (Topic 99). Additional prerequisite: Upper-division standing.

### **RTF 359C. Media Archaeology.**

Exploration of the media as artifacts as opposed to narratives or texts. Focuses on the materiality of media within specific socio-cultural, economic, and technological time periods each with their own modes

of historic and futuristic discourse. Three lecture hours a week for one semester. Radio-Television-Film 359S (Topic: Media Archaeology) and 359C may not both be counted. Offered on the letter-grade basis only.

### **RTF 359S. Studies in Media and Culture.**

Special topics related to the critical analysis of media in cultural contexts. Three lecture hours and one two-and-one-half-hour film screening a week for one semester. Radio-Television-Film 359 and 359S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 3: Gender and Rock Culture.** Critical analysis of issues relating to media, gender, and rock culture. Radio-Television-Film 331K (Topic: Gender, Sexuality, and Rock Culture) and 359S (Topic 3) may not both be counted.

**Topic 4: Media, Memory, and History.** Critical analysis of the relationship between historical events and media.

**Topic 5: Queer Media Studies.** Same as Women's and Gender Studies 335C. Critical analysis of queer media. Read key queer (media) theory texts and explore dominant strategies used by the media industries, as well as those utilized by LGBTQ+ independents/subcultures, paying close attention to contested discourses of identity, politics, activism and desire. Explore historical shifts in the representation of LGBTQ+ individuals. Three lecture hours and one two-and-one-half-hour film screening a week for one semester. Only one of the following may be counted: Radio-Television-Film 359S (Topic: Queer Media Studies), 359S (Topic 5), 377H (Topic: Queer Media Studies), 377H (Topic 2), Women's and Gender Studies 324 (Topic: Queer Media Studies), 335 (Topic 16), 335C. Additional prerequisite: Upper division standing.

**Topic 7: Mixed Race & US Film/Media.** An introduction to the evolving representation of mixed-race individuals, romance, and families and to mixed-race stars and producers in U.S. film, television, and new media since the silent film era. Radio-Television-Film 359S (Topic 7) and 370 (Topic: Mixed Race & US Film/Media) may not both be counted.

**Topic 8: Latina/os and U.S. Media.** Survey of the representation and participation of Latinas and Latinos in U.S. English-language film and television from the silent film era to the present. Also focuses on issues Latina/os face as media producers, media consumers, and media activists.

**Topic 9: Latina Feminisms and Media.** Survey of Chicana and Latina feminist scholarship, activism, and creative expression with an emphasis on Latina media production and representation in U.S. entertainment media. Only one of the following may be counted: Mexican American Studies 374 (Topic: Latina Feminisms and Media) Radio-Television-Film 359 (Topic: Latina Feminisms and Media), 359S (Topic 9), Women's and Gender Studies 324 (Topic: Latina Feminisms and Media).

**Topic 10: Gender and Media in the '60s.** Radio-Television-Film 359S (Topic: Gender and Media in the 1960s) and 359S (Topic 10) may not both be counted.

**Topic 11: Brazilian Media.** Radio-Television-Film 359 (Topic: Brazilian Media & Pop Culture) and 359S (Topic 11) may not both be counted.

**Topic 12: Gender and Fan Culture.** Same as Women's and Gender Studies 324E. Three lecture hours and one two-and-one-half-hour film screening a week for one semester. Only one of the following may be counted: Radio-Television-Film 359S (Topic: Gender and Fan Culture), 359S (Topic 12), Women's and Gender Studies 324 (Topic: Gender and Fan Culture), 324E. Additional prerequisite: Upper-division standing.

**Topic 13: Latin American Television.** Only one of the following may be counted: Radio-Television-Film 359 (Topic: Latin American Television), 359S (Topic 13), 377H (Topic: Latin American Television).

**Topic 14: Latino Images in Film.** Radio-Television-Film 359 (Topic: Latino Images in Film) and 359S (Topic 14) may not both be counted.

**Topic 15: Black Television Comedy.** Radio-Television-Film 359S (Topic: Black Television Comedy) and 359S (Topic 15) may not both be counted.

**Topic 16: Fan Identities and Cultures.**

### **RTF 365. Topics in Media and Society.**

Advanced topics addressing media, communication, and society. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 4: History of United States Latino Media.**

**Topic 5: Latin American Media.**

**Topic 7: Narrowcasting.**

**Topic 8: Migration and Media.** Advanced study of global media issues, including traditional and digital media use, social inclusion, and migration to the United States from Latin America, Asia, and elsewhere. Students conduct research on the relationships between media and migration.

**Topic 9: Media Industries and Entrepreneurship.** Same as Sociology 352E. Examination of the social, political, and economic contexts in which media and culture are produced, distributed, and monetized. Emphasis on new media and communication technologies. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 355M, Radio-Television-Film 365 (Topic: Media Industries and Entrepreneurship), 365 (Topic 9), Sociology 352E, 352M (Topic: Media Industries and Entrepreneurship). Additional prerequisite: Upper-division standing.

**Topic 10: Globalization and Social Media.** Same as Sociology 352S. Issues surrounding the hype, myth, paradox, and reality of social media in a global context. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic: Globalization and Social Media), Journalism 349T (Topic: Globalization and Social Media), 351S, Radio-Television-Film 331M (Topic: Globalization and Social Media), 365 (Topic 10), Sociology 321K (Topic: Globalization and Social Media), 352S. Additional prerequisite: Upper-division standing.

**Topic 12: Mapping Latino Culture in East Austin.** Only one of the follow may be counted: Journalism 354L, Radio-Television-Film 365 (Topic: Mapping Latino Culture in East Austin), 365 (Topic 12).

**Topic 13: Activist Media.**

**Topic 14: Queer Media and Activism.**

**Topic 15: Latinx Media, Arts, and Activism.** Same as Mexican American Studies 370D. Investigate the ways in which Latinx activists have used mainstream, alternative, legacy, and new media (as well as other visual and performing arts), to affect social and political change in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 370D, 374 (Topic: Latinx Media/Arts/Activism), Radio-Television-Film 365 (Topic: Latinx Media/Arts/Activism), 365 (Topic 15). Additional prerequisite: Upper-division standing.

### **RTF 365C. Media and Policy.**

Advanced topics addressing media and policy in society. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### **RTF 366. Introduction to Field and Studio Production.**

Restricted to radio-television-film majors. Basic theory and techniques in single-camera video production; individual and collective production assignments, with emphasis on technical proficiency, examination of the entire production process, visualization of ideas, and critical evaluation of the visual text. Three lecture hours and six laboratory hours a week for one semester. May not be taken concurrently with Radio-Television-Film 340 or 366K. Prerequisite: Upper-division standing; Radio-Television-Film 317 and 318 with a grade of at least B in each; and six semester hours of

lower-division coursework in radio-television-film with a grade of at least C in each course.

### **RTF 366K. Introductory Production.**

Restricted to radio-television-film majors. Three lecture hours and three laboratory hours a week for one semester. May not be taken concurrently with Radio-Television-Film 340 or 366. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Radio-Television-Film 317 and 318 with a grade of at least B- in each; and six semester hours of lower-division coursework in radio-television-film.

**Topic 2: Narrative Production.** A workshop in visual storytelling and non-dialogue filmmaking.

**Topic 3: Documentary Production.** Workshop in contemporary documentary practice, including directing, producing, cinematography, editing, sound recording, and distribution.

**Topic 4: East Austin Stories.** Students work in small production groups and make documentaries in and about East Austin for public screening at the end of the semester and for Webcasting.

**Topic 6: Experimental Film.** Radio-Television-Film 366K (Topic: Experimental Film) and 366K (Topic 6) may not both be counted.

**Topic 7: Creating a Web Series.** Radio-Television-Film 366K (Topic: Creating a Web Series) and 366K (Topic 7) may not both be counted.

**Topic 8: Collaborative Fan Content.** Meet creative and business executives from Rooster Teeth. Create original short content while learning how social media entertainment company Rooster Teeth thinks about the things they make. Examine how to bring an audience into the creative process from the start, learn from Rooster Teeth's success in emerging social media entertainment, and explore the role of community in the future of digital media. Radio-Television-Film 366K (Topic: Rooster Teeth Meets RTF) and 366K (Topic 8) may not both be counted.

### **RTF 366M. Introduction to Three-Dimensional Production.**

Restricted to students in radio-television-film. An introduction to the aesthetics, science, theory and practice of three-dimensional production via lectures, screenings, and some hands-on production work in groups. No previous three-dimensional experience is required. Three lecture hours and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, and six additional semester hours of lower-division coursework in radio-television-film.

### **RTF 367D. Directing Workshop.**

Restricted to radio-television-film majors. Explores the role of the director, focusing on the director-actor relationship, narrative structure, and visual language. Three lecture hours a week for one semester. Only one of the following may be counted: Radio-Television-Film 344 (Topic: Directing Workshop), 366D (Topic: Directing Workshop), 367D. Prerequisite: Upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, and six additional semester hours of lower-division coursework in radio-television-film.

### **RTF 367K. Producing Film and Television.**

Comprehensive consideration of the production process from the producer's standpoint regarding fiscal and creative management. Includes development and preproduction and production planning using computer budgeting and scheduling. Three lecture hours a week for one semester. Prerequisite: For Radio-Television-Film majors, upper-division standing, Radio-Television-Film 317 and 318 with a grade of at least B- in each, and six additional hours of coursework in Radio-Television-Film; for others, upper-division standing.

### **RTF 367M. Advanced Narrative: 16-mm.**

Restricted to radio-television-film majors. Theory and techniques in 16-mm film synchronous sound production; individual and collective production assignments, with emphasis on technical proficiency, examination of entire production process, visualization of ideas, and critical evaluation of the visual text. Three lecture hours and three laboratory hours a week for one semester. Radio-Television-Film 367L and 367M may not both be counted. Prerequisite: Upper-division standing, and Radio-Television-Film 366K (Topic 2).

### **RTF 367P. Advanced Producing.**

Restricted to radio-television-film majors. Advanced practical application of the business and creative skills used to produce and distribute media projects in the marketplace. Three lecture hours a week for one semester. Radio-Television-Film 344 (Topic: Advanced Producing) and 367P may not both be counted. May be repeated for credit when the topics vary. Prerequisite: Radio-Television-Film 367K.

### **RTF 367Q. Script to Screen.**

Restricted to radio-television-film majors. Examination of the behind the scenes production of feature films. Includes examination of scripts, shot lists, storyboards, shooting schedules, visual effects and behind-the-scenes footage. Three lecture hours and one two-and-one-half hour film screenings a week for one semester. Radio-Television-Film 367 (Topic: Adv. Producing Script to Screen) and 367Q may not both be counted. Prerequisite: Radio-Television-Film 333, 367K, or 367D.

### **RTF 367R. Script to Screen II.**

Restricted to radio-television-film majors. Film and edit projects developed in Radio-Television-Film 367Q. Develop short narratives, documentaries, web series, brand films, public service announcements, commercials, music videos, or feature film trailers. Three lecture hours and one two-and-one-half laboratory hours a week for one semester. Prerequisite: Radio-Television-Film 367Q and consent of instructor.

### **RTF 368. Advanced Production Topics.**

Restricted to radio-television-film majors. Advanced study of production crafts in film, television, and other digital media. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 3: Advanced Production.** Prerequisite: Radio-Television-Film 343 (Topic 1), 343 (Topic 2), 343N, or 367L.

**Topic 5: Projects Course: 3D.** Restricted to Radio-Television-Film majors. Three lecture hours and a week for one semester with additional hours to be arranged. Additional prerequisite: Radio-Television-Film 343N.

**Topic 6: Immersive Media Production.** Exploration of the theory and practice of immersive media: stereoscopy, artificial environments, and virtual reality. Additional prerequisite: Radio-Television-Film 344M (Topic 2), or 344M (Topic 3), or 366M, or consent of instructor.

### **RTF 368C. Advanced Directing.**

Restricted to radio-television-film majors. Creation of collaborative, performance-based works that emphasize simplicity and ingenuity in image and sound choices. Works will adhere to a production code that is a modified version of the Dogme 95 Vow of Cinematic Chastity. Three lecture hours and three laboratory hours a week for one semester. Radio-Television-Film 368 (Topic 4: Advanced Directing) and 368C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Radio-Television-Film 366D.

### **RTF 368D. Advanced Cinematography.**

Restricted to radio-television-film majors. Study of the art of cinematography beyond the basic principles of camera and lighting.

Group production of short films to explore the cinematic tools used to create an overall visual approach to storytelling. Examination of film genre, color, texture, lens continuity, aspect ratio, and practical on set strategies and challenges. Three lecture hours and three laboratory hours a week for one semester. Radio-Television-Film 368 (Topic: Advanced Cinematography) and 368D may not both be counted. Prerequisite: Upper-division standing, and either Radio-Television-Film 343D (or Radio-Television-Film 368 (Topic 2: Cinematography)) or Radio-Television-Film 343 (Topic 1: Advanced Narrative Production).

### **RTF 368S. Undergraduate Thesis.**

Restricted to radio-television-film majors. Advanced film production or media studies research. Three lecture hours a week for one semester, with studio hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor; Prerequisites vary with the topic.

- Topic 1: Film Production Thesis.** Intensive production workshop, designed for students who wish to produce a film for a portfolio. Additional prerequisite: Radio-Television-Film 343, or 367L, or 368.
- Topic 2: Media Studies Thesis.** An independent research project based on primary data, resulting in a written summary of theoretical foundations, methodological approach, results, and a discussion.
- Topic 3: Screenwriting Thesis.** Advanced screenwriting for film or television. Intensive writing workshop, designed for students who wish to produce a polished script suitable for submission to agents and competitions. Radio-Television-Film 368 (Topic: Writing Thesis) and 368S (Topic 3) may not both be counted. Additional prerequisite: Radio-Television-Film 369
- Topic 4: Emergent Cinematic Arts Thesis.** Additional prerequisite: Radio-Television-Film 344M.

### **RTF 369. Advanced Screenwriting.**

Restricted to radio-television-film majors. Students develop and write original screenplays. Includes advanced study of screenplay structure, critical analysis of student and professional work, and intensive writing each week toward a completed script. Three lecture hours a week for one semester. Students may not enroll in more than two sections of any Radio-Television-Film 369 course in the same semester. May be repeated for credit when the topics vary. Prerequisite: Radio-Television-Film 333 with a grade of at least B-.

- Topic 1: Advanced Screenwriting for Feature Films.** Students may not enroll in more than one section of Radio-Television-Film 369 (Topic 1) in the same semester.
- Topic 2: Advanced Screenwriting for Television.**
- Topic 3: Advanced Screenwriting: Television Pilots.** Radio-Television-Film 369 (Topic: Adv Screenwriting: TV Pilots) and 369 (Topic 3) may not both be counted.
- Topic 4: Advanced Screenwriting: Television Specs.** Radio-Television-Film 369 (Topic: Adv Screenwriting: TV Specs) and 369 (Topic 4) may not both be counted.
- Topic 5: Advanced Screenwriting: Independent Films.** Radio-Television-Film 369 (Topic: Adv Scrnwrt for Film: Indies) and 369 (Topic 5) may not both be counted.
- Topic 6: Advanced Screenwriting: Science Fiction and Horror.** Radio-Television-Film 369 (Topic: Adv Screenwrtng: Sci-Fi/Horror) and 369 (Topic 6) may not both be counted.

### **RTF 370. Film Analysis and Criticism.**

Analysis of critical methods, selected films, and selected critics. Three lecture hours and one two-and-one-half hour film screening a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Comedy in Film and Media.** Additional prerequisite: Radio-Television-Film 370 (Topic: Comedy in Film and Media) and 370 (Topic 1) may not both be counted.

**Topic 2: Animation Studies.** Radio-Television-Film 331K (Topic: Animation Studies) and 370 (Topic 2) may not both be counted.

**Topic 3: Asian Horror Film.** Radio-Television-Film 370 (Topic: Asian Horror Film) and 370 (Topic 4) may not both be counted.

**Topic 4: Film Noir.** Radio-Television-Film 370 (Topic: Film Noir) and 370 (Topic 4) may not both be counted.

**Topic 5: Films of Clint Eastwood.** Radio-Television-Film 370 (Topic: Films of Clint Eastwood) and 370 (Topic 5) may not both be counted.

**Topic 6: Films of Alfred Hitchcock.** Radio-Television-Film 370 (Topic: Film Anly and Crit: Hitchcock) and 370 (Topic 6) may not both be counted.

**Topic 7: Films of Martin Scorsese.** Radio-Television-Film 370 (Topic: Films of Scorsese) and 370 (Topic 7) may not both be counted.

**Topic 8: Independent American Cinema.** Radio-Television-Film 370 (Topic: Independent American Cinema) and 370 (Topic 8) may not both be counted.

**Topic 9: Asian American Film.**

**Topic 10: Black Filmmakers after Blaxploitation.** Radio-Television-Film 370 (Topic: Blk Filmmakrs Aftr Blxploitatn) and 370 (Topic 10) may not both be counted.

### **RTF 377H. Advanced Topics in Media Studies.**

Focus on specialized topics and issues in media history, theory, and criticism. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and a University grade point average of at least 3.0.

**Topic 1: Media and Popular Culture.** Radio-Television-Film 370 (Topic: Media and Popular Culture) and 377H (Topic 1) may not both be counted.

**Topic 3: Global Sports Media.** Radio-Television-Film 377H (Topic: Global Sports Media) and 377H (Topic 3) may not both be counted.

### **RTF 377S. Advanced Topics in Media Studies with Screenings.**

Focus on specialized topics and issues in media history, theory, and criticism. Three lecture hours and one two-and-one-half-hour film screening a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and a University grade point average of at least 3.0.

**Topic 1: Landscape and Cinema.** Radio-Television-Film 345 (Topic: Landscape and Cinema) and 377S (Topic 1) may not both be counted.

### **RTF 178. Radio-Television-Film Internship.**

Restricted to radio-television-film majors. Practical work experience related to the study of film, television, radio, or other media. Students must make their own arrangements to secure relevant internships. The equivalent of ten lecture hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, Radio-Television-Film 330L, 350L, 650L, or 650N

### **RTF 378H. Honors Tutorial Course.**

Restricted to radio-television-film majors. Intensive reading, research, and/or production project. Individual instruction. May be taken twice for credit. May be repeated for credit. Prerequisite: Upper-division standing, twelve semester hours of lower-division coursework in radio-television-film, a University grade point average of at least 3.00, a grade point average in radio-television-film of at least 3.50, and consent of the department.

## Graduate Courses

### RTF 380. Research Theory and Design.

Introduction to research theory and design. Designed to help students develop skills in understanding and critiquing current research, and in designing and proposing research projects. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### RTF 380C. Screenwriting for Directors.

Introduction to the study and practice of writing for film and television. Three lecture hours a week for one semester. Required of all production students. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

### RTF 380D. Topics in Media Industries.

Examine history, theory, and methods used in studying the media industries in different national and regional contexts. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor and consent of the graduate advisor.

### RTF 380E. Topics in Media History.

Explore the history of telegraphy, radio, and television as cultural forms, communications technologies, and social, political and economic institutions. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor and consent of the graduate advisor.

### RTF 380G. Research Practices.

Introduction to research implementation. Designed to help students develop skills in conducting a variety of research approaches. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### RTF 380J. Theory and Principles of Dramatic Writing.

Restricted to students in the Master of Fine Arts screenwriting program in radio-television-film. Introduction to theory and practice in narrative writing for film and electronic media. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

**Topic 1: First-Year Screenwriting.** Required of students in the Master of Fine Arts screenwriting program in radio-television-film. Offered on the letter-grade basis only.

**Topic 2: First-Year Rewriting.** Required of students in the Master of Fine Arts screenwriting program in radio-television-film. Offered on the letter-grade basis only.

### RTF 380M. Advanced Screenwriting.

Creation and development of written work for film and television production. Students will develop a major work, such as a full-length screenplay or television pilot. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**Topic 3: Advanced Screenwriting I.**

**Topic 4: Advanced Screenwriting II.**

### RTF 380N. Screenwriting Topics.

Creation and realization of professional materials for film and television. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, Radio-Television-

Film 380M or the equivalent, and consent of instructor and the graduate adviser.

**Topic 1: Adaptation.** Covers adapting a screenplay from existing material. Write a film adaptation of a short story or similar source material, which will be assigned by the instructor. Create an outline or treatment, revise their writing extensively, and engage in weekly discussions of each other's work. Radio-Television-Film 380N (Topic: Adaption) and 380N (Topic 1) may not both be counted.

**Topic 2: Television Specs.** Introduction to the fundamentals of writing for television. Develop and write both a one-hour and half-hour television 'spec' based on an existing series. Radio-Television-Film 380N (Topic: TV Specs) and 380N (Topic 2) may not both be counted.

**Topic 3: Writers Room Workshop.** Develop and write an entire season of an original television series. At the end of the semester, the show will be sent out for consideration by major networks and students will get full writing credit for their episodes. Radio-Television-Film 380N (Topic: Writers Room Workshop) and 380N (Topic 3) may not both be counted.

**Topic 4: Writing for Series Television.** Covers how to write for both network and cable television. Analyze the dramatic elements of each genre, with each student completing a "spec" script for a current sitcom and drama. Develop an original TV pilot as a class, from the original "franchise" premise through a completed story-outline for the pilot episode. Radio-Television-Film 380N (Topic: Writing for Series Television) and 380N (Topic 4) and may not both be counted.

### RTF 380P. Production Workshop for Writers.

Exploration of cinematic storytelling through the production of short digital videos. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### RTF 380S. Topics in Media History with Screening.

Explore the history of telegraphy, radio, and television as cultural forms, communications technologies, and social, political and economic institutions. Three lecture hours and one two-and-one-half-hour film screening a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor and consent of the graduate advisor.

### RTF 881K. Principles of Film and Television Production.

Study of film and video production aesthetics and techniques. Production costs borne by the student. Four lecture hours and four studio hours a week for two semesters, with additional studio hours to be arranged. Prerequisite: For 881KA, graduate standing and consent of instructor and the graduate adviser; for 881KB, Radio-Television-Film 881KA.

### RTF 384N. Internship in Film and Electronic Media.

Practical working involvement with participating media production and research agencies. The equivalent of ten class hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### RTF 385K. History of Film.

Survey of the history of the motion picture. Lectures and readings; screenings are required for some topics. Three lecture hours a week for one semester, with one two-hour film screening a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**Topic 1: Media, Memory, and the Archive.** Radio-Television-Film 385K (Topic: Media, Memory, & Archive) and 385K (Topic 1) may not both be counted.

### **RTF 385L. Seminar in Film History.**

Advanced study and research in major directors, genres, periods, and movements of film history. Three lecture hours a week for one semester, with one two-hour film screening a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **RTF 386. Analysis and Criticism of Film and Electronic Media.**

Analysis and explication of representative critics, critical systems, genres, and artists. Three lecture hours a week for one semester, with one two-hour film screening a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**Topic 2: Black Popular Culture.** Radio-Television-Film 386 (Topic: Black Popular Culture) and 386 (Topic 2) may not both be counted.

### **RTF 386C. Seminar: Media Theory and Criticism.**

Advanced study in media theory and criticism. Three lecture hours a week for one semester, with one two-hour film screening a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**Topic 1: Fan Identities and Cultures.**

**Topic 2: Art and Activism.** Radio-Television-Film 386C (Topic: Art and Activism) and 386C (Topic 2) may not both be counted.

**Topic 3: Race, Class, and Gender in American Television.**

### **RTF 387C. Global Media.**

Study of global media systems, theories, and processes. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**Topic 1: Media and Diaspora.** Radio-Television-Film 387C (Topic: Media and Diaspora) and 387C (Topic 1) may not both be counted.

### **RTF 387D. Communication for Development and Social Change.**

Study of how development institutions use communication strategies for social change, and how development discourse communicates assumptions about social change. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **RTF 387W. Global Media: Study Abroad.**

Restricted to graduate students in radio-television-film. Research, analysis, and criticism of global media systems and issues. Students study at institutions outside the United States. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **RTF 288, 388, 488. Research Problems in Specialized Fields of Radio-Television-Film.**

Research project chosen from area of student's major interests. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. Credit earned depends on the nature of the research project. May be repeated for credit. Prerequisite: Graduate standing and consent of the graduate adviser.

### **RTF 288C, 388C, 488C. Research Problems: Doctoral Exam Preparation.**

Research and reading in preparation for doctoral examinations. For each semester hour of credit earned, the equivalent of one class hour a week

for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in radio-television-film and consent of the graduate adviser.

### **RTF 288D, 388D, 488D. Research Problems in Specialty Fields of Radio-Television-Film.**

Research project chosen from area of student's major interests. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **RTF 288E, 388E, 488E. Research Problems in Specialized Fields of Radio-Television-Film.**

Research project chosen from area of student's major interests. For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **RTF 388M, 488M. Practicum in Film and Television Production.**

Production of projects in film and video. Production costs borne by the student. For each semester hour of credit earned, one lecture hour a week for one semester; additional laboratory hours vary with the topic. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

**Topic 1: Pre-Thesis Production.** Restricted to students in the Master of Fine Arts production program in radio-television-film. For each semester hour of credit earned, one lecture hour and one laboratory hour a week for one semester. Radio-Television-Film 388M (Topic: Pre-Thesis Production) and 388M, 488M (Topic 1) may not both be counted. Offered on the letter-grade basis only.

**Topic 3: Thesis Production.** Restricted to students in the Master of Fine Arts production program in radio-television-film. For each semester hour of credit earned, one lecture hour and one laboratory hour a week for one semester. Radio-Television-Film 388M (Topic: Thesis Film Production) and 388M, 488M (Topic 3) may not both be counted. Offered on the letter-grade basis only.

**Topic 4: Thesis Postproduction.** Restricted to students in the Master of Fine Arts production program in radio-television-film. Radio-Television-Film 388M (Topic: Prac Film/TV: Thesis Postproduction), and 388M (Topic 4) may not both be counted. Offered on the letter-grade basis only.

### **RTF 388P. Topics in Film and Video Production.**

Restricted to students in the Master of Fine Arts production program in radio-television-film. Production costs borne by the student. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

**Topic 1: Cinematography.** Radio-Television-Film 388P (Topic: Cinematography) and 388P (Topic 1) may not both be counted.

**Topic 2: Acting for Filmmakers.** Explore core elements of acting technique through scene study, improvisation, and other exercises. Radio-Television-Film 388P (Topic: Acting for Filmmakers) and 388P (Topic 2) may not both be counted.

**Topic 3: Cinema Laboratory.** Radio-Television-Film 388P (Topic: Cinema Laboratory) and 388P (Topic 3) may not both be counted.

**Topic 4: Advanced Cinematography.** Radio-Television-Film 388P (Topic: Advanced Cinematography) and 388P (Topic 4) may not both be counted.

**Topic 5: Advanced Directing.** Create collaborative, performance-based works that emphasize simplicity and ingenuity in image and sound choices, adhering to a production code that is a modified version of the Dogme 95 Vow of Cinematic Chastity. Radio-Television-Film 388P (Topic: Advanced Directing) and 388P (Topic 5) may not both be counted.

**RTF 388R. Project in a Specialized Field of Radio-Television-Film.**

Completion of a research or creative project required for the report option of the master's degree. The equivalent of three class hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in radio-television-film and consent of the graduate adviser.

**RTF 388S. Research Problems in Specialized Fields of Radio-Television-Film: Production.**

The equivalent of at least three class hours a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

**RTF 388T. Producing Film and Television.**

Comprehensive consideration of the production process from the standpoint of fiscal and creative management; preproduction and production planning using computer budgeting and scheduling. Software costs borne by the student. Three lecture hours a week for one semester, with studio hours to be arranged. Radio-Television-Film 388P (Topic: Producing Film and Television) and 388T may not both be counted. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**RTF 389. Media and Society.**

Study of selected issues related to media and society. Three lecture hours a week for one semester, with one two-hour film screening a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**RTF 389K. History of Broadcasting.**

Principal eras of broadcast development, audience patterns, legal and industrial precedents of broadcast practices, contemporary industrial and institutional perspectives in radio and television. Three lecture hours a week for one semester, with one two-hour film screening a week if required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**RTF 390C, 490C. Introduction to Editing Processes.**

Introductory editing topics designed to build the foundation for later postproduction practice. Incorporates technical, aesthetic, and practical considerations into an overall view of editing as a process. Three or four lecture hours a week for one semester, with studio hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**RTF 390E. Advanced Video Postproduction: Audio.**

Restricted to first-year Master of Fine Arts production students in radio-television-film. Theory and application of audio for screen image. Three lecture hours a week for one semester, with studio hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and consent of instructor and the graduate adviser.

**RTF 390F. Topics in Production Crafts.**

Professional-level experiences in various topics in the production crafts. Three lecture hours a week for one semester, with additional laboratory

hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in radio-television-film and consent of the graduate adviser.

**RTF 390G. Introduction to Media Aesthetics and Techniques.**

Introduction to physical and aesthetic aspects of sound, light, and image and to the science and technologies that record and reproduce them. Three lecture hours and two studio hours a week for one semester, with additional studio hours to be arranged. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**RTF 390N. Issues in New Media.**

Issues in new media theory and practice. Three lecture hours a week for one semester, with one screening or studio session of at least two hours a week to be arranged. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**RTF 393Q. Special Topics in Digital Media.**

Applications and impact of digital media technologies. Three lecture hours a week for one semester; additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**RTF 395. Theory and Literature.**

Advanced seminar surveying the literature of media and communication theories. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

**Topic 1: Theory and Literature for Doctoral Students: Social Science Approaches.** Restricted to doctoral students. Surveys the literature of social science approaches to communication study.

**Topic 2: Theory and Literature: Humanities Approaches.** Surveys the literature of humanities approaches to media studies.

**Topic 3: Theory and Literature in Media Studies for Master's Students.**

**Topic 4: Theory and Literature I.** Restricted to doctoral students in Radio-Television-Film. Radio-Television-Film 395 (Topic: Theory/Literature for PhDs) and 395 (Topic 4) may not both be counted.

**Topic 5: Theory and Literature II.** Restricted to doctoral students in Radio-Television-Film. Radio-Television-Film 395 (Topic: Theory/Literature for PhDs II) and 395 (Topic 5) may not both be counted.

**RTF 095C. Research Colloquium.**

Restricted to students with graduate standing in radio-television-film. Lectures on subjects to be announced. One lecture hour per week. Required for media studies graduate students. May be repeated for credit. Prerequisite: Graduate standing.

**RTF 196, 296, 396, 496. Portfolio in Media Production.**

The equivalent of one, two, three, or four lecture hours a week for one semester. Prerequisite: Graduate standing in radio-television-film and consent of the graduate adviser.

**RTF 196P, 296P, 396P, 496P. Portfolio in Media Production.**

Restricted to Master's of Fine Arts in radio-television-film. For each hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of graduate adviser.

**RTF 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate

standing in radio-television-film and consent of the graduate adviser; for 698B, Radio-Television-Film 698A.

### **RTF 198M, 298M, 398M. Master's Research and Writing.**

Research and writing to complete masters thesis. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **RTF 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in radio-television-film and consent of the graduate adviser.

### **RTF 398T. Supervised Teaching in Radio-Television-Film.**

Study of the teaching/learning process; practice in classroom presentation. Three lecture hours a week for one semester. Required for appointment as an assistant instructor in radio-television-film; may be taken before or during the first semester of appointment. Offered on the letter-grade basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **RTF 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Real Estate Courses**

## **Real Estate: R E**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **R E 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in Real Estate.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Finance. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

### **R E 358. Introduction to Real Estate and Urban Land Development.**

Same as Urban Studies 325R. An examination of the principles of real estate and urban land economics. Subjects include investment, valuation, financing, and public policy in real estate and mortgage markets. Three lecture hours a week for one semester. Only one of the following may be counted: Real Estate 358, Urban Studies 325R, 351 (Topic: Introduction to Real Estate and Urban Land Development), 351 (Topic 5). Prerequisite: Accounting 310F or 311 or 311H; and Finance 357 or 357H.

### **R E 160, 260, 360. Special Topics in Real Estate.**

Restricted to students in a business major. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Real Estate 358.

**Topic 1: Taxation of Real Estate Investments.** Exposure to accounting practices in the real estate industry. Only one of the following may be counted: Accounting 378 (Topic: Taxation of Real Estate Invest), 178 (Topic 5), 278 (Topic 5), 378 (Topic 5), Real Estate 360 (Topic: Taxation of Real Estate Invest), 360 (Topic 1). Offered on the letter-grade basis only.

### **R E 364. Real Estate Development.**

Provides an interdisciplinary experience with the entire development process including finance, branding, architecture, planning, entitlements, engineering, among others; and an opportunity to work with a multi-disciplinary team on real-world commercial real estate projects. Includes various guest speakers from the development industry that represent different aspects and phases of the development process. Additionally, time is provided for project work sessions with teammates, faculty and professional mentors which will include progress reports, workshops and group presentations. Culminates in a presentation of each group's work, including branding, business plan and pro-forma along with site diagrams. The equivalent of three lecture hours a week for one semester Real Estate 360 (Topic: Real Estate Development) and 364 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Real Estate 358.

### **R E 376G. Real Estate Investment.**

Study of the setting and measurement of property values in real estate markets and an analysis of real estate assets as investments. Three lecture hours a week for one semester. Prerequisite: Real Estate 358.

### **R E 378K. Real Estate Finance and Syndication.**

An examination of debt and equity financing of residential and commercial properties; mortgage markets and instruments; lender and investor decisions in real estate financing. Three lecture hours a week for one semester. Prerequisite: Finance 367 or Real Estate 358.

## **Graduate Courses**

### **R E 386. Seminar in Real Estate Analysis.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Business Administration 285T or 385T, and credit or registration for Finance 286.

**Topic 1: Real Estate Markets.** Overview of real estate principles, markets, and valuation. Introduction to the major types of commercial property, methods of analyzing real estate markets and investments, urban economics, and real estate institutions.

**Topic 2: Real Estate Investment Decisions.** In-depth coverage of approaches used to analyze real estate investments, including debt and equity. Additional prerequisite: Real Estate 386 (Topic 1).

**Topic 3: Real Estate Analysis.** Prerequisite: Finance 394 (Topic 1), 397 (Topic 1), and Real Estate 386 (Topic 1); or consent of instructor.

**Topic 7: Real Estate Decision Making.** Additional prerequisite: Real Estate 386 (Topic 1).

### **R E 288, 388. Seminar in Real Estate Finance.**

Current aspects of real estate finance as they affect lenders, borrowers, and investors. Institutional changes affecting trends in real estate finance are presented within a decision-making framework. Special emphasis on real estate capital markets, public and private debt, and equity. For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Graduate standing.

### **R E 289, 389. Real Estate Practicum.**

Project-based study with a focus on the application of real estate and finance principles to practical problems. For 289, at least ten lecture hours and forty hours of project work scheduled throughout the semester. For 389, at least fifteen lecture hours and sixty hours of

project work scheduled throughout the semester. Prerequisite: Graduate standing, Business Administration 285T or 385T, Real Estate 386 (Topic 1: Real Estate Markets), and credit or registration for Finance 286.

## Professional Courses

# Religious Studies Courses

## Religious Studies: R S

### Lower-Division Courses

#### R S 302. History of the Religions of Asia.

Same as Asian Studies 301R and Core Texts and Ideas 306D. Eastern religions: an introduction to the basic forms and the historical development of the religious traditions of India, China, and Japan. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 301R, Core Texts and Ideas 304 (Topic: History of Religions of Asia), 306D, 310 (Topic: History of Religions of Asia), Religious Studies 302.

#### R S 304. Judaism, Christianity, and Islam: An Introduction.

Same as History 304R, Islamic Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction), and Jewish Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction). Examines the intertwined historical development of the religions of Judaism, Christianity, and Islam, and explores the principal beliefs and practices of Jews, Christians, and Muslims. Three lecture hours a week for one semester.

#### R S 305. Introduction to the Philosophy of Religion.

Same as Core Texts and Ideas 310 (Topic 3) and Philosophy 305. A critical examination of various conceptions of God and of the relationship of the human and the divine. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Only one of the following may be counted: Core Texts and Ideas 310 (Topic: Introduction to the Philosophy of Religion), 310 (Topic 3), Philosophy 305, Religious Studies 305.

#### R S 306C. Comparative Religious Ethics.

Same as Jewish Studies 311E. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 311 (Topic: Comparative Religious Ethics), 311E, Religious Studies 306 (Topic: Comparative Religious Ethics), 306C.

#### R S 306D. The Roots of Religious Toleration.

Same as European Studies 306 (Topic 3), History 309J, and Jewish Studies 311C. Examines how freedom of conscience and religion crystallized in western and central Europe, both as a pragmatic practice and as a matter of principle. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 310 (Topic: Roots of Religious Toleration), European Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 3), History 309J, 317N (Topic: Roots of Religious Toleration), 317N (Topic 1), Jewish Studies 311 (Topic: Roots of Religious Toleration), 311 (Topic 5), 311C, Religious Studies 306 (Topic: Roots of Religious Toleration), 306 (Topic 1), 306D.

#### R S 307. Introduction to Interreligious Dynamics.

Introduction to the diverse dynamics of interreligious encounters, from armed conflicts to interreligious dialogue. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

#### R S 309C. Medieval Material Culture.

Same as Ancient History and Classical Civilization 310 (Topic 6) and History 309C. Explore the history of medieval Europe primarily through the lens of material culture. Three lecture hours a week for one semester.

Only one of the following may be counted: Ancient History and Classical Civilization 310 (Topic: Medieval Material Culture), 310 (Topic 6), History 306N (Topic: Medieval Material Culture), 309C, Religious Studies 309C, 315 (Topic: Medieval Material Culture).

#### R S 310. Introduction to the Study of Religion.

Introduction to scholarly methods in the study of religion. Three lecture hours a week for one semester. Religious Studies 310 and Sociology 313K may not both be counted.

#### R S 310R. Introduction to Middle East Religions.

Same as Islamic Studies 310R, Jewish Studies 310R, and Middle Eastern Studies 310R. Introduction to the religious landscape of the Middle East including the various expressions of Eastern Christianity, Islam, and Judaism as well as Zoroastrianism. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 310R, Jewish Studies 310R, Middle Eastern Studies 310R, Religious Studies 310R.

#### R S 311. Topics in Religious Studies.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### R S 312C. Introduction to Buddhism.

Same as Asian Studies 301M (Topic 11: Introduction to Buddhism). A structural and historical overview of Buddhism through the examination of various schools, doctrines, biographical narratives, and contemporary ethical issues. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 11), Religious Studies 312 (Topic: Introduction to Buddhism), 312C.

#### R S 313C. Introduction to the Old Testament.

Same as Core Texts and Ideas 305G, Jewish Studies 311 (Topic 4), and Middle Eastern Studies 310C. Introduction to the many interpretations of the Hebrew Bible (the Old Testament) and its meaning in the context of its historical and cultural setting in the ancient Near East. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 305G, Jewish Studies 311 (Topic 4), Middle Eastern Studies 310 (Topic 3), 310C, Religious Studies 313C.

#### R S 313D. Introduction to Jewish Studies.

Same as Anthropology 311D, Jewish Studies 301, and Middle Eastern Studies 310 (Topic 8). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: Jewish Studies: An Introduction), 311D, Jewish Studies 301, 311 (Topic: Jewish Studies: An Introduction), Middle Eastern Studies 310 (Topic: Jewish Studies: An Introduction), 310 (Topic 8), Religious Studies 313 (Topic: Jewish Studies: An Introduction), 313D.

#### R S 313E. Introduction to Jewish Latin America.

Same as Anthropology 311E, Jewish Studies 305D, and Latin American Studies 315 (Topic 3). Historical and cultural analysis of how Jews constructed lives and communities in predominantly Hispanic, Catholic countries of Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 310L (Topic: Introduction to Jewish Latin America), 311E, Jewish Studies 311 (Topic: Introduction to Jewish Latin America), 305D, Latin American Studies 310 (Topic: Intro to Jewish Latin America), 315 (Topic: Intro to Jewish Latin America), 315 (Topic 3), Religious Studies 313 (Topic: Introduction to Jewish Latin America), 313E.

#### R S 313M. Jewish Civilization: Beginnings to 1492.

Same as History 306N (Topic 10), Jewish Studies 304M, and Middle Eastern Studies 310 (Topic 6). Introduction to the history, culture, and religion of the Jewish people from around 1000 BC to the end of the

medieval period. Subjects may include ancient Israel, late Second Temple sectarianism, the rise of Christianity, rabbinic Judaism, medieval Jewish philosophy, Jewish mysticism, and Hebrew poetry. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Jewish Civilization I), 306N (Topic 10), Jewish Studies 304M, 311 (Topic: Jewish Civilization I), Middle Eastern Studies 310 (Topic: Jewish Civilization: Beginnings to 1492), 310 (Topic 6), Religious Studies 313 (Topic: Jewish Civilization I), 313M.

#### **R S 313N. Jewish Civilization: 1492 to the Present.**

Same as European Studies 306 (Topic 4), History 306N (Topic 11), and Jewish Studies 304N. Subjects may include trends toward secularization, the emancipation of European Jewry, the emergence of American Jewry, the Holocaust, the establishment of the State of Israel, and the Arab-Israeli conflict. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Jewish Civilization: 1492 to the Present), 306 (Topic 4), History 306N (Topic 11), Jewish Studies 304N, 311 (Topic: Jewish Civilization: 1492 to the Present), Religious Studies 313 (Topic: Jewish Civilization: 1492 to the Present), 313N.

#### **R S 314K. Introduction to the Middle East: Religious, Cultural, and Historical Foundations.**

Same as History 306K and Middle Eastern Studies 301K. A survey of the history and civilization of the Middle East from the sixth to the fourteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: History 306K, Middle Eastern Studies 301K, Religious Studies 314 (Topic: Intro M East: Rel/Cul/Hist Fnd), 314K.

#### **R S 315C. The Bible and Its Interpreters.**

Same as Core Texts and Ideas 304 (Topic 1). Seeks to develop a wide-ranging familiarity with the Jewish and Christian Bibles and with the dominant modes of ancient, medieval, and early modern biblical interpretation. Readings include an extensive range of primary sources, including both the Scriptures themselves and some of their most influential exegetes. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 304 (Topic 1), Religious Studies 315 (Topic 1), 315C.

#### **R S 315K. Russian Icons and Propaganda.**

Same as Russian, East European, and Eurasian Studies 302D. Three lecture hours a week for one semester. Only one of the following may be counted: Religious Studies 315 (Topic: Russian Icons and Propaganda), 315K, Russian, East European, and Eurasian Studies 302 (Topic: Russian Icons and Propaganda), 302D.

#### **R S 315M. Luther's World.**

Same as European Studies 306 (Topic 6), German, Scandinavian, and Dutch Studies 311G, and History 304Q. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 306 (Topic: Luther's World), 306 (Topic 6), German, Scandinavian, and Dutch Studies 310 (Topic: Luther's World), 311G, History 304Q, 306N (Topic: Luther's World), Religious Studies 315 (Topic: Luther's World), 315M.

#### **R S 315N. Introduction to the New Testament.**

Same as Classical Civilization 304E and Core Texts and Ideas 305N. Examines representative examples of the texts found in the Christian New Testament and selected noncanonical writings. Focuses on historical setting and systematic methods of interpretation. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 304C (Topic: Introduction to the New Testament), 304E, Core Texts and Ideas 305N, 310 (Topic: Introduction to the New Testament), Religious Studies 315N.

#### **R S 316C. History of Religion in the United States.**

Same as American Studies 315 (Topic 5) and History 317L (Topic 16). Explores instances of religious dominance and religious diversity in United States history. Moving from the pre-colonial period to the present, it examines the changing circumstances of several religious communities, including American Indians and Puritans, Protestant evangelicals, Mormons, Roman Catholics, Jews, Muslims, and Hindus. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic 5), History 317L (Topic 16), Religious Studies 316C, 316U (Topic 1).

#### **R S 316E. American Jews: The Yiddish Experience.**

Same as American Studies 315 (Topic 6), German, Scandinavian, and Dutch Studies 310 (Topic 1), and Jewish Studies 311 (Topic 9). Focuses on over a century of Yiddish-based contributions to American literature, music, and film, including works by Isaac Bashevis Singer, Michael Chabon, Woody Allen, and the Marx Brothers. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic 4), 315 (Topic 6); German, Scandinavian, and Dutch Studies 310 (Topic 1); Jewish Studies 311 (Topic 6), 311 (Topic 9); Religious Studies 313 (Topic 1), 316K (Topic 2), 316E.

#### **R S 316L. Introduction to Religions of Latin America.**

Same as African and African Diaspora Studies 316K and Latin American Studies 316L. Examine a survey of religious practice across Latin America and the Caribbean. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 316K, 317E (Topic: Intro Relig/Lat Amer/Carib), Latin American Studies 310 (Topic: Intro Relig/Lat Amer/Carib), 316L, Religious Studies 316K (Topic: Intro Relig/Lat Amer/Carib), 316L.

#### **R S 317N. Introduction to Modern North Africa.**

Same as History 306N (Topic 12) and Middle Eastern Studies 310N. Introduction to the major themes of North African history from the sixteenth century to the present. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic: Intro to Modern North Africa), 306N (Topic 12), Middle Eastern Studies 310 (Topic: Intro Modern North Africa), 310N, Religious Studies 317 (Topic: Intro Modern North Africa), 317N.

#### **R S 318. The Rise of Christianity.**

Same as Classical Civilization 318 and Jewish Studies 306E. Introduction to the origins and development of Christianity. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 318, Jewish Studies 306E, 311 (Topic: The Rise of Christianity), 311 (Topic 3), Religious Studies 318.

#### **R S 319. Introduction to Islam.**

Same as Asian Studies 301M (Topic 15), History 306N (Topic 7), and Islamic Studies 310. The beliefs, theology, history, and main social and legal institutions of Islam, including the concept of God and society, the role of women, and Islamic government and movements. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Asian Studies 301M (Topic 15), History 306N (Topic 7), Islamic Studies 310, Religious Studies 319.

#### **R S 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Religious Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Religious Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken

in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## Upper-Division Courses

### R S 321. History of Hindu Religious Traditions.

Same as Anthropology 322N, Asian Studies 340D, and History 364C. History of major doctrines, practices, and institutions that shaped the development of Hinduism; how religions adapt to social and cultural change and often provide the catalyst for change. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322N, 324L (Topic 23), Asian Studies 340 (Topic 4), 340D, History 364C, 364G (Topic 1), Religious Studies 321. Prerequisite: Upper-division standing.

### R S 322. History of Indian Buddhism.

Same as Asian Studies 340E. The institutional, social, economic, and doctrinal history of Buddhism in India. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic 5), 340E, Religious Studies 322. Prerequisite: Upper-division standing.

### R S 325. Prophet of Islam: His Life and Times.

Same as History 364D and Islamic Studies 340 (Topic 1). A detailed study of the prophet Muhammad's life and message, and of the means by which his life was recorded and popularized. Three lecture hours a week for one semester. Only one of the following may be counted: History 364G (Topic 2), 364D, Islamic Studies 340 (Topic 1), Religious Studies 325. Prerequisite: Upper-division standing.

### R S 325G. The Qur'an.

Same as Comparative Literature 323 (Topic 37), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), and Women's and Gender Studies 340 (Topic 54). The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Prerequisite: Upper-division standing.

### R S 326. History of Religion in America since 1800.

Same as History 351P. Introduction to the history of religion in the United States of America from the nineteenth century to the present. Focuses on how diverse peoples imagined and transformed the landscape, interacted with one another at different sites, and moved within and across national borders. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### R S 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Religious Studies.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Religious Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated program. May be repeated for credit when the topics vary.

### R S 335. Jesus in History and Tradition.

Same as Classical Civilization 348 (Topic 10: Jesus in History and Tradition). Critical issues, scholarly debates, and historical methods in studying the development of the Christian tradition regarding the figure

of Jesus. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### R S 337. Religion and Society.

Same as Sociology 343. The growth and decline of religious groups and traditions; "cults" and new religions; comparative sociology of religion; the United States religious landscape; religion and individual health and well-being; spirituality and other aspects of social life. Three lecture hours a week for one semester. Religious Studies 337 and Sociology 343 may not both be counted. Prerequisite: Upper-division standing.

### R S 341C. Gandhi and Gandhism.

Same as Asian Studies 361 (Topic 6) and History 350L (Topic 5). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic 6), History 350L (Topic 5), Religious Studies 341 (Topic 5), 341C. Prerequisite: Upper-division standing.

### R S 341E. The Taj Mahal and the Diversity of Indian Art.

Same as Art History 348M. Examination of the period when Islamic dynasties controlled much of the subcontinent and how a unique mix of forms and cultural practices shaped the development of monuments such as the Taj Mahal. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 348M, 372 (Topic: The Taj Mahal and the Diversity of Indian Art), Asian Studies 372 (Topic: The Taj Mahal and the Diversity of Indian Art), Religious Studies 341 (Topic 9), 341E. Prerequisite: Upper-division standing.

### R S 341F. Jainism: Religion of Non-Violence.

Same as Asian Studies 340J. Survey of the history, doctrines, institutions, and practices of Jainism from its origins to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Jainism: Relig of Non-Violence), 340J, Religious Studies 341 (Topic: Jainism: Relig of Non-Violence), 341F. Prerequisite: Upper-division standing.

### R S 341K. Karma: Ethical Theories of India.

Three lecture hours a week for one semester. Religious Studies 341 (Topic 15) and 341K may not both be counted. Prerequisite: Upper-division standing.

### R S 341M. Gender, Sexuality, and the Family in Indian Religions and Cultures.

Same as Anthropology 322O, Asian Studies 372K, and Women's and Gender Studies 340 (Topic 25). A comprehensive historical overview of gender issues as they are represented in the textual traditions of South Asia. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322O, 324L (Topic 40), Asian Studies 372 (Topic 25), 372K, Religious Studies 341 (Topic 3), 341M, Women's and Gender Studies 340 (Topic 25). Prerequisite: Upper-division standing.

### R S 341P. Indian Poetry and Religions.

Same as Asian Studies 379 (Topic 4). Explores the intersections of religion and poetry in the history of Indian literature as expressed in multiple settings and variations including hymns, chants, bhajans, poetic narratives, and new poetic conventions that deal with caste and gender identities. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 379 (Topic 4), Religious Studies 341 (Topic 11), 341P. Prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

### R S 341T. Buddhist Art.

Same as Art History 348N and Asian Studies 374C. Explores the development of Buddhist art in South Asia, the land of its origin as well

as its spread elsewhere. Focus on the question of "what is" Buddhist art. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 348N, 372 (Topic: Buddhist Art), Asian Studies 372 (Topic 24), 374C, Religious Studies 341 (Topic 8), 341T.

### **R S 341U. Devotional Literature of India.**

Same as Asian Studies 340U. Discuss the songs of major saints. Examine how holy men and women expressed their religiosity through the medium of songs and poetry over the centuries and consider the role these songs had in shaping the religious communities of India. All works will be studied in translation. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Devotional Lit Of India), 340U, Religious Studies 341 (Topic: Devotional Lit Of India), 341U. Prerequisite: Upper-division standing.

### **R S 344. The Age of Reformation.**

Same as Core Texts and Ideas 355R and History 343. Examines late medieval religion, the rise of Protestant movements, and the Catholic response in their cultural, political, and social contexts. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 355R, 375 (Topic: The Age of Reformation), History 343, Religious Studies 344. Prerequisite: Upper-division standing.

### **R S 345. Islamic Spain and North Africa to 1492.**

Same as History 375D and Middle Eastern Studies 343 (Topic 4). An introduction to the impact of Islam on Spain and North Africa, with emphasis on social, economic, and cultural development. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Islamic Spain and North Africa to 1492), History 375D, Islamic Studies 373 (Topic: Islamic Spain and North Africa to 1492), Middle Eastern Studies 343 (Topic 4), Religious Studies 345, 363 (Topic: Islamic Spain and North Africa to 1492). Prerequisite: Upper-division standing.

### **R S 346C. Religion and Visual Culture in the United States.**

Focuses on artifacts or "visual culture," and considers how religion mediates artifacts and how artifacts mediate religion. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: American Studies 325 (Topic: Religion and Visual Culture in the United States), Religious Studies 346 (Topic: Religion and Visual Culture in the United States), 346C.

### **R S 346D. Native American Religions.**

Same as American Studies 327C. Examination of religious developments in Native American communities from the precolonial period through the present day. Focus on the changing forms of ritual practice and the relationship between religion and community life. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Native American Religion), 327C, Religious Studies 346 (Topic: Native American Religion), 346D. Prerequisite: Upper-division standing.

### **R S 346E. Religion and Film.**

Same as American Studies 321V. Survey of representations of religious beliefs, practices, persons, and institutions in popular film. Examination of film as a vehicle to reflect how a shared religious imagination shaped the way Americans understand themselves. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Religion and Film), 321V, Religious Studies 346 (Topic: Religion and Film), 346E. Prerequisite: Upper-division standing.

### **R S 346F. United States Catholic History.**

Same as American Studies 327D, History 365G (Topic 1), and Mexican American Studies 374 (Topic 37). Examine how Catholicism and national

identity work for Catholics in the United States, with an emphasis on Catholic women and Latino/as. Only one of the following may be counted: American Studies 327 (Topic 4), 327D, History 365G (Topic 1), Mexican American Studies 374 (Topic 37), Religious Studies 346 (Topic 5), 346F. Prerequisite: Upper-division standing.

### **R S 346G. Religion in the American West.**

Same as American Studies 327G. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Religion in the American West), 327 (Topic 8), 327G, Religious Studies 346 (Topic: Religion in the American West), 346G. Prerequisite: Upper-division standing.

### **R S 346I. Unbelief in America.**

Same as History 365G (Topic 16). Examine the history of unbelief and the role that it has played in US history. Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic: Unbelief in America), 365G (Topic: Unbelief in America), 365G (Topic 16), Religious Studies 346 (Topic: Unbelief in America), 346I. Prerequisite: Upper-division standing.

### **R S 346J. Evangelical Christianity.**

Same as American Studies 327E. An introduction to the intellectual and social sources of evangelical Protestant traditions in the United States, their varieties of belief and practice, and their role in the wider Christian community and American society. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Evangelical Christianity), 327 (Topic 5), 327E, Religious Studies 346 (Topic: Evangelical Christianity), 346 (Topic 6), 346J. Prerequisite: Upper-division standing.

### **R S 346K. The Black Church in African American Politics.**

Same as African and African Diaspora Studies 350S and Government 371F. Explore the political role of the Black church in the African American experience. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350S, 374D (Topic 14), Government 370K (Topic 4), 371F, Religious Studies 346 (Topic 7), 346K. Prerequisite: Six semester hours of lower-division coursework in Government.

### **R S 346L. Representation of Jews in the American Public Sphere.**

Same as Anthropology 325D and Jewish Studies 365 (Topic 11). Examines how Jews have been represented and constituted in American public culture as a race, religion, and/or nation through distinct institutions and display practices. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325D, 325L (Topic 13), Jewish Studies 365 (Topic 11), Religious Studies 346 (Topic 8), 346L. Prerequisite: Upper-division standing.

### **R S 346M. Music and Religious Identities in the US.**

Same as American Studies 325E and Music 346R. Examine religious music in Christianity and Judaism in relation to communities in religious context of Europe and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 325 (Topic: Music and Religious Identities in the US), 325E, Music 346R, 376G (Topic: US Music/Religious Identity), Religious Studies 346 (Topic: Music and Religious Identities in the US), 346M. Prerequisite: Upper-division standing.

### **R S 346N. American Jewish Material Culture.**

Same as Anthropology 325O and Jewish Studies 365 (Topic 12). Examines the interplay between material culture and Jewish identity and thought in contemporary America. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L

(Topic 17), 325O, Jewish Studies 365 (Topic 12), Religious Studies 346 (Topic 9), 346N. Prerequisite: Upper-division standing.

### **R S 346P. Religion in American Political Thought.**

Same as Government 335C. Explore religion and politics in the United States through reading of mostly primary sources addressing religious arguments taking positions on historical and contemporary issues. Three lecture hours a week for one semester. Only one of the following may be counted: Government 335C, 335M (Topic 5), Religious Studies 346 (Topic 2), 346P. Prerequisite: Six semester hours of lower-division coursework in Government.

### **R S 346R. Religion and Social Justice in United States.**

Same as American Studies 327I. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Religion/Social Justice US), 327I, Religious Studies 346 (Topic: Religion/Social Justice US), 346R. Prerequisite: Upper-division standing.

### **R S 346S. Debating the Bible in the Twenty-First Century.**

Same as American Studies 327J and Core Texts and Ideas 355T. Examine the ways in which individuals, primarily in the United States, have regarded the Bible as relevant or irrelevant to contemporary life. Discuss contemporary controversial issues in which the Bible has played a role and how these relate to earlier controversies, such as the position of the Bible on slavery. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Debating the Bible in 21st Century), 327J, Core Texts and Ideas 355T, 375 (Topic: Debating the Bible in 21st Century), Religious Studies 346 (Topic: Debating the Bible in 21st Century), 346 (Topic 11), 346S. Prerequisite: Upper-division standing; introductory courses in the Hebrew Bible and/or New Testament recommended.

### **R S 346T. Views of Islam in the United States.**

Same as American Studies 327L and Islamic Studies 372 (Topic 27). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic: Views of Islam in the US), 327L, Islamic Studies 372 (Topic: Views of Islam in the US), 372 (Topic 27), Religious Studies 346 (Topic: Views of Islam in the US), 346T. Prerequisite: Upper-division standing.

### **R S 346U. The History of Islam in the United States.**

Same as American Studies 370 (Topic 61), History 350R (Topic 22), and Islamic Studies 372 (Topic 21). A brief introduction to Islam. Defines the role of Islam and views of Muslims in the early history of the United States, and introduces students to major issues concerning contemporary American Muslims. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: History of Islam in the US), 370 (Topic 61), History 350R (Topic 22), Islamic Studies 372 (Topic 21), Religious Studies 346 (Topic 10), 346U. Prerequisite: Upper-division standing and six semester hours of coursework in history.

### **R S 346V. African American Religions.**

Same as African and African Diaspora Studies 352G. Survey the history and variety of religion as practiced by Americans of African descent. Examine the social construction of African religion, black religion, and the black church, within the cultural context of the United States. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 352G, 374D (Topic: African American Religions), Religious Studies 346 (Topic: African American Religions), 346V. Prerequisite: Upper-division standing.

### **R S 352D. Japanese Religion and Western Imagination.**

Same as Anthropology 324D and Asian Studies 340C. Examines Japanese religious traditions, with a focus on Zen, through the perspective of people living in non-Japanese societies since the end of World War II. Explores different ways in which non-Japanese have imagined Japanese religious and ethical ideas and both explained Japanese behavior and adopted ideas about Japan into their writings about philosophy and life. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Japanese Religion and Western Imagination), 340C, Anthropology 324D, 324L (Topic: Japanese Religion and Western Imagination), Religious Studies 352 (Topic: Japanese Religion and Western Imagination), 352D. Prerequisite: Upper-division standing.

### **R S 352E. Confucianism.**

Same as Asian Studies 372L. Explore the philosophical and historical context of Confucianism, from its origins in ancient China through the early empire and beyond. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 32), 372L, Core Text and Ideas 375 (Topic: World of Confucians), Religious Studies 352 (Topic 10), 352E. Prerequisite: Upper-division standing.

### **R S 352F. Religion and Family in Japanese Society.**

Same as Asian Studies 361 (Topic 38). Explores the structures of family, kinship, and religion in Japan since 1868 and their roles in the creation and expression of national and individual identities. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Religion and Family in Japanese Society), Asian Studies 361 (Topic 38), 372 (Topic: Religion and Family in Japanese Society), Religious Studies 352 (Topic 9), 352F. Prerequisite: Upper-division standing.

### **R S 352G. Shamanism and the Primitive.**

Same as Anthropology 325W, Asian Studies 341P, and Russian, East European, and Eurasian Studies 345 (Topic 12). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Shamanism & the Primitive), 325W, Asian Studies 340 (Topic: Shamanism & the Primitive), 341P, Religious Studies 352 (Topic: Shamanism & the Primitive), 352G, Russian, East European, and Eurasian Studies 345 (Topic: Shamanism & the Primitive), 345 (Topic 12). Prerequisite: Upper-division standing.

### **R S 352R. Ritual and Religion in Korea.**

Same as Asian Studies 340G. Examine major religious traditions of Korea; focus on the recent history and contemporary practice, and the relation between religion and politics during Korea's colonial (1910-1945) and postcolonial eras. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Ritual and Religion in Korea), Asian Studies 340 (Topic 10), 340G, Religious Studies 352 (Topic 4), 352R. Prerequisite: Upper-division standing.

### **R S 352S. Japanese Concepts of Body and Self.**

Same as Anthropology 324L (Topic 69) and Asian Studies 372N. Exploration of anthropological literature describing Japanese conceptions of self and body, and analysis of the intersection of these conceptions of self with Japanese ideas about religion, morality, aging, and medicine. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Japanese Concepts of Body and Self), 324L (Topic 69), Asian Studies 372 (Topic 41), 372N, Religious Studies 352 (Topic 8), 352S. Prerequisite: Upper-division standing.

### **R S 353C. Angels, Demons, and Magic in Early Christianity.**

Same as Middle Eastern Studies 342 (Topic 53). Examine angelology, demonology and magic influence on the lives of early Christians and

Christianity. Three lecture hours a week for one semester. Only one of the following may be counted: Middle Eastern Studies 342 (Topic: Angel/Demon/Magic Early Cen), 342 (Topic 53), Religious Studies 353 (Topic: Angel/Demon/Magic Early Cen), 353C. Prerequisite: Upper-division standing.

### **R S 353D. The Dead Sea Scrolls.**

Same as Ancient History and Classical Civilization 330 (Topic 1), History 364E, Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), and Middle Eastern Studies 342 (Topic 23). Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic 1), History 364G (Topic 3), 364E, Jewish Studies 364 (Topic 4), Middle Eastern Languages and Cultures 321 (Topic 17), Middle Eastern Studies 342 (Topic 23), Religious Studies 353D. Prerequisite: Upper-division standing.

### **R S 353E. Beyond the New Testament.**

Same as Classical Civilization 348F. Study of early Christian writings that were not included in the Christian Bible. Examines issues such as the effect of narrative, religion and violence, gendered expectations for women and men, the uses of fantasy literature, and religious authority. Emphasis on systematic methods for disciplined interpretation. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Beyond the New Testament), 348F, Religious Studies 353E. Prerequisite: Upper-division standing.

### **R S 353F. Interpretation of Jesus' Death and Resurrection.**

Same as Classical Civilization 348D. Examine the narratives of Jesus' death and resurrection and their subsequent interpretation over the last two thousand years. Analyze historical Christian and Islamic texts, contemporary debates and cultural context. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Interpretation of Jesus' Death and Resurrection), 348D, Religious Studies 353 (Topic: Interpretation of Jesus' Death and Resurrection), 353F. Prerequisite: Upper-division standing.

### **R S 353G. Abraham and Abrahamic Religions.**

Same as Core Texts and Ideas 354, Jewish Studies 363D, and Middle Eastern Studies 342 (Topic 52). Examines the figure of Abraham as portrayed in the Bible and the reception of that portrayal in Judaism, Christianity, and Islam. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354, 375 (Topic: Abraham & Abrahamic Religions), Jewish Studies 363 (Topic: Abraham & Abrahamic Religions), 363D, Middle Eastern Studies 342 (Topic: Abraham & Abrahamic Religions), 342 (Topic: 52), Religious Studies 353 (Topic: Abraham & Abrahamic Religions), 353G. Prerequisite: Upper division standing.

### **R S 353J. Revelation and Apocalyptic Literature.**

Same as Classical Civilization 348I. Examine the Book of Revelation in the context of early Christian and Jewish literature. Study other apocalyptic texts, methods of textual analysis, and the ongoing effects of Revelation in modern American culture. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Revelation and Apocalyptic Lit), 348I, Religious Studies 353 (Topic 1), 353J. Prerequisite: Upper-division standing.

### **R S 353K. Law and Justice in the Bible.**

Same as Core Texts and Ideas 354L, Jewish Studies 363 (Topic 30), and Middle Eastern Studies 342 (Topic 66). Examine the legal traditions of the Torah (Pentateuch) and what they reveal about the practice of law and justice in ancient Israel and the wider biblical world. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354L, Jewish Studies 363 (Topic

30), Middle Eastern Studies 342 (Topic: Law/Justice in the Bible), 342 (Topic 66), Religious Studies 353 (Topic: Law/Justice in the Bible), 353K. Prerequisite: Upper-division standing.

### **R S 353L. The Sacred and the Secular in Contemporary Jewish Literature.**

Same as Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8), and Middle Eastern Studies 342 (Topic 8). Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic 10), Middle Eastern Languages and Cultures 321 (Topic 8), Middle Eastern Studies 342 (Topic 8), Religious Studies 353 (Topic 3), 353L. Prerequisite: Upper-division standing.

### **R S 353M. Debating Genesis.**

Same as Jewish Studies 363 (Topic 26), Middle Eastern Languages and Cultures 321D, and Middle Eastern Studies 342 (Topic 65). Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic: Debating Genesis), 363 (Topic 26), Middle Eastern Languages and Cultures 321 (Topic: Debating Genesis), 321D, Middle Eastern Studies 342 (Topic: Debating Genesis), 342 (Topic 65), Religious Studies 353 (Topic: Debating Genesis), 353M. Prerequisite: Upper-division standing.

### **R S 353N. Biblical Prophecy.**

Same as Core Texts and Ideas 354P, Jewish Studies 363 (Topic 28), and Middle Eastern Studies 342 (Topic 37). An introduction to the diversity of prophetic literature in the Old Testament, its historical development, social context, and Near Eastern parallels. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354P, 375 (Topic: Biblical Prophecy), Jewish Studies 363 (Topic: Biblical Prophecy), 363 (Topic 28), Middle Eastern Languages and Cultures 321 (Topic 24), Middle Eastern Studies 342 (Topic 37), Religious Studies 353 (Topic: Biblical Prophecy), 353N, 361 (Topic: Biblical Prophecy). Prerequisite: Upper-division standing.

### **R S 353P. Paul and His Social World.**

Same as Classical Civilization 348J. Examine the life and letters of the first-century Jewish missionary Paul by interpreting his writings within the context of diaspora Judaism and the broader Greco-Roman world. Explore his legacy within the context of early church history. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Paul and His Social World), 348J, Religious Studies 353 (Topic 2), 353P. Prerequisite: Upper-division standing.

### **R S 353R. The Five Books of Moses.**

Same as Core Texts and Ideas 354F, Jewish Studies 364 (Topic 15), and Middle Eastern Studies 342 (Topic 68). Study the socio-historical circumstances that gave shape to the first five books of the Bible: Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. Examine how these five books achieved the status of sacred literature. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354F, 375 (Topic: The Five Books of Moses), Jewish Studies 364 (Topic: The Five Books of Moses), 364 (Topic 15), Middle Eastern Studies 342 (Topic: The Five Books of Moses), 342 (Topic 68), Religious Studies 353 (Topic: The Five Books of Moses), 353R, 361 (Topic: The Five Books of Moses). Prerequisite: Upper-division standing.

### **R S 354D. The Bible and History.**

Same as Jewish Studies 364 (Topic 3). The critical uses of biblical and extrabiblical data in the reconstruction of the history of the biblical period. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330

(Topic: The Bible and History), Jewish Studies 364 (Topic 3), Religious Studies 354D. Prerequisite: Upper-division standing.

### **R S 355. The Bible as Literature.**

Same as English 358J. In-depth literary study of the Bible, with emphasis on the formal features of narrative, hymn, prophecy, apocalypse, gospel, and epistle. Three lecture hours a week for one semester. English 358J and Religious Studies 355 may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **R S 355K. The Bible in British and American Literature.**

Same as English 358K. The reading of biblical masterpieces as literature; consideration of different versions of the Bible and their influence on British and American literature. Three lecture hours a week for one semester. English 358K and Religious Studies 355K may not both be counted. Prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

### **R S 356C. Italian Renaissance, 1350-1550.**

Same as European Studies 346 (Topic 27) and History 343G. Survey of political, socioeconomic, religious, and intellectual trends during the Italian Renaissance. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Italian Renaissance, 1350-1550), 346 (Topic 27), History 343G, Religious Studies 356C, 357 (Topic: Italian Renaissance, 1350-1550). Prerequisite: Upper-division standing.

### **R S 356D. Satan and the Idea of Evil.**

Same as Core Texts and Ideas 342. Explore the history and breadth of Satan's role as a character (or background presence) in literature while developing close-reading techniques for literary analysis that can be applied across diverse eras, forms, and genres. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 342, 345 (Topic: Satan and the Idea of Evil), 345 (Topic 2), Religious Studies 356D, 357 (Topic: Satan and the Idea of Evil). Prerequisite: Upper-division standing.

### **R S 356F. Twelfth-Century Renaissance: 1050-1200.**

Same as Ancient History and Classical Civilization 330 (Topic 8), European Studies 346 (Topic 40), and History 344G. An examination of social, cultural, and intellectual developments in eleventh- and twelfth-century Europe. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Twelfth-Cent Renais: 1050-1200), 330 (Topic: 12th-Century Renais: 1050-1200), 330 (Topic 8), European Studies 346 (Topic: 12th-Century Renais: 1050-1200), 346 (Topic 40), History 344G, Religious Studies 356F, 357 (Topic: 12th-Century Renais: 1050-1200). Prerequisite: Upper-division standing.

### **R S 356G. The Galileo Affair.**

Same as History 350L (Topic 32). Examine the life and work of Galileo Galilei (1564-1642), particularly his conflict with Church authorities and his condemnation in 1633. Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic 32), Religious Studies 356G, 357 (Topic: The Galileo Affair). Prerequisite: Upper-division standing.

### **R S 357C. Machiavelli: Politics and Culture.**

Same as Ancient History and Classical Civilization 330 (Topic 6), Core Texts and Ideas 330M, and History 344R. Through Niccolò Machiavelli's chief writings, consider the local, regional, Mediterranean, European, and global aspects of his work. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Machiavelli), 330 (Topic 6), Core Texts and Ideas 330M, 375 (Topic: Machiavelli), European Studies 346 (Topic:

Machiavelli), History 344R, 350L (Topic: Machiavelli), Liberal Arts Honors 350 (Topic: Machiavelli), 351P, Religious Studies 357 (Topic: Machiavelli), 357C. Prerequisite: Upper-division standing.

### **R S 357D. Heresy and the Inquisition.**

Same as History 350L (Topic 33). Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic 33), Religious Studies 357 (Topic 1), 357D. Prerequisite: Upper-division standing.

### **R S 357E. Jews of Eastern Europe.**

Same as History 362R, Jewish Studies 364 (Topic 7), and Russian, East European, and Eurasian Studies 335 (Topic 23). Explores the history and culture of Jews in Eastern Europe. Three lecture hours a week for one semester. Only one of the following may be counted: History 362G (Topic 8), 362R, Jewish Studies 364 (Topic 7), Russian, East European, and Eurasian Studies 335 (Topic 23), Religious Studies 357 (Topic 13), 357E. Prerequisite: Upper-division standing.

### **R S 357F. Heretics and Freedom Fighters, 1350-1650.**

Same as European Studies 346 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic 3), and History 362T. Explores the theologies, politics, and personal identities that emerged and passed away in this era. Three lecture hours a week for one semester. Only one of the following may be counted: Czech 324 (Topic 4), European Studies 346 (Topic 8), German, Scandinavian, and Dutch Studies 360 (Topic 3), History 362G (Topic 12), 362T, Religious Studies 357 (Topic 12), 357F, Russian, East European, and Eurasian Studies 325 (Topic 28). Prerequisite: Upper-division standing.

### **R S 357G. Geography of Religion in Eastern Europe and Russia.**

Same as Geography 356T (Topic 14) and Russian, East European, and Eurasian Studies 345 (Topic 9). A comprehensive overview of major religious culture regions in the former Eastern bloc countries. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 356T (Topic: Geography of Religion in Eastern Europe and Russia), 356T (Topic 14), Religious Studies 357 (Topic: Geography of Religion in Eastern Europe and Russia), 357 (Topic 5), 357G, Russian, East European, and Eurasian Studies 345 (Topic: Geography of Religion in Eastern Europe and Russia), 345 (Topic 9). Prerequisite: Upper-division standing.

### **R S 357I. Byzantine Art.**

Same as Art History 329J. Examination of the medieval art and architecture of the eastern Roman empire, including related traditions (Coptic, Armenian, Georgian, Crusader, Norman). Three lecture hours a week for one semester. Only one of the following may be counted: Art History 329J, Religious Studies 357 (Topic 2), 357I.

### **R S 357J. Northern Renaissance Art, 1350-1500.**

Same as Art History 332K and European Studies 347 (Topic 27). Northern European art from the International Style to van Eyck and Hieronymus Bosch. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 332K, European Studies 347 (Topic: Northern Renaissance Art, 1350-1500), 347 (Topic 27), Religious Studies 357 (Topic: Northern Renaissance Art, 1350-1500), 357 (Topic 7), 357J.

### **R S 357K. Northern Renaissance Art, 1500-1600.**

Same as Art History 332L and European Studies 347 (Topic 32). Art and cultural development in the sixteenth century; artists include Durer, Gruenewald, Holbein, and Brueghel. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 332L, European Studies 347 (Topic: Northern Renaissance Art, 1500-1600),

347 (Topic 32), Religious Studies 357 (Topic: Northern Renaissance Art, 1500-1600), 357 (Topic 6), 357K. Prerequisite: Upper-division standing.

### **R S 357L. The Spanish Inquisition.**

Same as European Studies 346 (Topic 11), History 350L (Topic 77), and Jewish Studies 364 (Topic 5). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 11), History 350L (Topic 77), Jewish Studies 364 (Topic 5), Religious Studies 357 (Topic 10), 357L. Prerequisite: Upper-division standing.

### **R S 357M. Spinoza and Modernity.**

Same as Core Texts and Ideas 321F, European Studies 346 (Topic 21), History 362P, and Jewish Studies 364 (Topic 9). Introduction to the core of Spinoza's writings and the diverse reactions they have elicited. Examines Spinoza's refusal of mind-body dualism, as well as a transcendent god or ideal as a way of understanding Spinoza's concepts and ideas. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 321F, European Studies 346 (Topic 21), 347 (Topic: Spinoza and Modernity), History 362P, Jewish Studies 364 (Topic 9), Philosophy 354 (Topic 7), Religious Studies 357 (Topic 8), 357M. Prerequisite: Upper-division standing.

### **R S 357N. Northern Gods, Northern Faiths: The Conversion of Scandinavians, Finns, Northern Slavs and Shamans.**

Same as German, Scandinavian, and Dutch Studies 361G and Russian, East European, and Eurasian Studies 345 (Topic 7). An introduction to the basic source texts for several pre-Christian belief systems evolving in geographic proximity and their influence on one another including pre-Christian Slavic; pre-Christian Scandinavian; pre-Christian Sami and Finnish; and ancient and modern Siberian shamanism. Three lecture hours a week for one semester. Only one of the following may be counted: German, Scandinavian, and Dutch Studies 361G, Religious Studies 357 (Topic 16), 357N, Russian, East European, and Eurasian Studies 345 (Topic 7). Prerequisite: Upper-division standing.

### **R S 357O. The Church and the Jews.**

Same as European Studies 346 (Topic 28), History 361D, and Jewish Studies 364 (Topic 10). Examination of the complex relationship between the Western Church and Jews over two millennia. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: The Church and the Jews), 346 (Topic 28), History 361D, 362G (Topic 14), Jewish Studies 364 (Topic 10), Religious Studies 357 (Topic 9), 357O. Prerequisite: Upper-division standing.

### **R S 357P. Jewish Folklore.**

Same as Anthropology 325T, German, Scandinavian, and Dutch Studies 361W, and Jewish Studies 363 (Topic 25). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Jewish Folklore), 325T, German, Scandinavian, and Dutch Studies 360 (Topic: Jewish Folklore), 361W, Jewish Studies 363 (Topic: Jewish Folklore), 363 (Topic 25), Religious Studies 357 (Topic: Jewish Folklore), 357P. Prerequisite: Upper-division standing.

### **R S 357Q. Gothic Cathedral: Amiens.**

Same as Art History 330J and European Studies 347 (Topic 30). An examination of the cathedral at Amiens, its meaning, structure, political and financial contexts, and sculptural programs, as well as its influence on other buildings in France and Germany. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 330J, 374 (Topic: Gothic Cathedral: Amiens), European Studies 347 (Topic: Gothic Cathedral: Amiens), 347 (Topic 30), Religious Studies 357 (Topic 14), 357Q.

### **R S 357R. The Age of Rembrandt and Rubens: Northern Baroque Art.**

Same as Art History 333L and European Studies 347 (Topic 31). Northern European art in the seventeenth century, stressing the Netherlands and Flanders. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 333L, European Studies 347 (Topic: The Age of Rembrandt and Rubens: Northern Baroque Art), 347 (Topic 31), Religious Studies 357 (Topic 11), 357R.

### **R S 357S. The Sacred and the Secular in Modern European Thought.**

Same as Core Texts and Ideas 332, European Studies 346 (Topic 32), and History 361G. Introduces key themes and methodologies of intellectual history and social theory by exploring the dueling approaches to secularization and sacralization in modern European thought. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 332, 335 (Topic: Sacred and Secular in Modern European Thought), 335 (Topic 7), European Studies 346 (Topic: Sacred and Secular in Modern European Thought), 346 (Topic 32), History 361G, 362G (Topic: Sacred and Secular in Modern European Thought), 362G (Topic 19), Religious Studies 357 (Topic: Sacred and Secular in Modern European Thought), 357 (Topic 20), 357S. Prerequisite: Upper-division standing.

### **R S 357T. Introduction to Germanic Religion and Myth.**

Same as European Studies 347 (Topic 3) and German, Scandinavian, and Dutch Studies 361C. Survey of the sources and main features of Germanic religion and of the transition from paganism to Christianity in northern Europe and the Germanic territories of western Europe. Subjects include cosmogonic myths; the origin of man and of society; the concept of the soul; gods and goddesses and their mythology; and the organization of worship. Three lecture hours a week for one semester. Only one of the following may be counted: English 322 (Topic 2), European Studies 347 (Topic 3), German, Scandinavian, and Dutch Studies 361C, Religious Studies 365 (Topic 2), Religious Studies 357 (Topic 17), 357T. Prerequisite: Upper-division standing.

### **R S 357U. Medieval Women Mystics.**

Same as European Studies 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, and Women's and Gender Studies 340 (Topic 51). The life and writings of Saint Birgitta of Sweden, fourteenth-century visionary, religious reformer, and pilgrim, examined and compared with her predecessor Hildegard of Bingen (Germany), her successor Margery Kempe (England), as well as Margery's mentor, Julian of Norwich. Social and historical contexts for all four of these women mystics will be explored in depth. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, Germanic Civilization 327E (Topic 10), Religious Studies 357 (Topic 15), 357U, Scandinavian 373 (Topic 8), Women's and Gender Studies 340 (Topic 51). Prerequisite: Upper-division standing.

### **R S 357V. Holocaust Aftereffects.**

Same as Comparative Literature 323 (Topic 40), European Studies 346 (Topic 23), German, Scandinavian, and Dutch Studies 360 (Topic 1), Jewish Studies 365 (Topic 14), and Women's and Gender Studies 340 (Topic 66). Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 40), European Studies 346 (Topic 23), German, Scandinavian, and Dutch Studies 360 (Topic 1), Jewish Studies 365 (Topic 14), Liberal Arts Honors 350 (Topic: Holocaust Aftereffects), 351Q, Religious Studies 357 (Topic 18), 357V, Women's and Gender Studies

340 (Topic: Holocaust Aftereffects), 340 (Topic 66). Prerequisite: Upper-division standing.

### **R S 357W. Russian Orthodox Religion and Culture.**

Same as History 325Q and Russian, East European, and Eurasian Studies 325 (Topic 41). Examine the role and force of the Orthodox Church in Russian history, from the Christianization of the pagan Slavs in the 10th century, through the Russian Revolution into the Soviet era, and up to the present, while considering the prescriptive tenets of the Orthodox faith (religion) alongside descriptive experiences of life within and under Russian Orthodoxy (religiosity). Three lecture hours a week for one semester. Only one of the following may be counted: History 325Q, 366N (Topic: Rus Orthodox Religion/Cultr), Religious Studies 357 (Topic: Rus Orthodox Religion/Cultr), 357W, Russian, East European and Eurasian Studies 325 (Topic: Rus Orthodox Religion/Cultr), 325 (Topic 41). Prerequisite: Upper-division standing.

### **R S 358C. Islam and Politics.**

Same as Government 364C, Islamic Studies 373 (Topic 19), and Middle Eastern Studies 341 (Topic 9). An introduction to Islamic political thought. Three lecture hours a week for one semester. Only one of the following may be counted: Government 364C, 365N (Topic: Islam and Politics), Islamic Studies 373 (Topic: Islam and Politics), 373 (Topic 19), Middle Eastern Studies 341 (Topic: Islam and Politics), 341 (Topic 9), Religious Studies 358 (Topic: Islam and Politics), 358C. Prerequisite: Upper division standing.

### **R S 358D. Muslim Women in Politics.**

Same as Anthropology 324N, Islamic Studies 372 (Topic 23), and Women's and Gender Studies 340 (Topic 56). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Muslim Women in Politics), 324N, Islamic Studies 372 (Topic: Muslim Women in Politics), 372 (Topic 23), Religious Studies 358 (Topic: Muslim Women in Politics), 358 (Topic 19), 358D, Women's and Gender Studies 340 (Topic: Muslim Women in Politics), 340 (Topic 56). Prerequisite: Upper-division standing.

### **R S 358E. Medieval Islam: Faith and History.**

Same as History 350L (Topic 34) and Middle Eastern Studies 343 (Topic 5). Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic 34), Middle Eastern Studies 343 (Topic 5), Religious Studies 358 (Topic 2), 358E. Prerequisite: Upper-division standing.

### **R S 358F. French Empire: The West and Islam.**

Same as History 364Q and Islamic Studies 372 (Topic 22). The development of regions within the Mediterranean, variously called the West and East or Europe and Islam, with an emphasis on the role of modern France and France's Mediterranean empire. Three lecture hours for one semester. Only one of the following may be counted: History 364G (Topic 7), 364Q, Islamic Studies 372 (Topic 22), Religious Studies 358 (Topic 16), 358F. Prerequisite: Upper-division standing.

### **R S 358G. Gender Politics in the Islamic World.**

Same as Islamic Studies 373 (Topic 11), Middle Eastern Studies 341 (Topic 7), Sociology 336G, and Women's and Gender Studies 340 (Topic 44). Study of the Islamic world and major sociological concepts such as gender, social organizations, culture, and politics. Examines how culture is mediated by politics, resulting in diverse interpretations of Islam and in different policies with respect to women's rights. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 373 (Topic 11), Middle Eastern Studies 341 (Topic 7), Religious Studies 358 (Topic 8), 358G, Sociology 336G, Women's and Gender Studies 340 (Topic 44). Prerequisite: Upper-division standing.

### **R S 358I. Sufism: Islamic Thought and Spirituality.**

Same as Asian Studies 340Q, History 339S, and Middle Eastern Studies 342S. Explore Sufism and other Islamic mystical traditions that color cultural milieus spanning four continents and fourteen centuries. Focus on the historical developments in the Islamic theosophical tradition, as well as the relationship between Sufism and poetics, colonialism, and post-colonial resistance movements. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic 8), 340Q, 361 (Topic: Sufism and Islam Mysticism), History 339S, 366N (Topic: Sufism and Islam Mysticism), Islamic Studies 340 (Topic 4), Middle Eastern Studies 342 (Topic: Sufism and Islam Mysticism), 342 (Topic 24), 342S, Religious Studies 358 (Topic 4), 358I, 361 (Topic: Sufism and Islam Mysticism). Prerequisite: Upper-division standing.

### **R S 358J. Sex and Sexuality in the Muslim World.**

Same as Islamic Studies 372 (Topic 25), Sociology 342S, and Women's and Gender Studies 335 (Topic 20). Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 372 (Topic: Sex/Sexuality Muslim World), 372 (Topic 25), Religious Studies 358 (Topic: Sex/Sexuality Muslim World), 358J, Sociology 321K (Topic: Sex/Sexuality Muslim World), 342S, Women's and Gender Studies 335 (Topic: Sex/Sexuality Muslim World), 335 (Topic 20). Prerequisite: Upper-division standing.

### **R S 358K. Islamic Law.**

Same as Islamic Studies 340 (Topic 5), Middle Eastern Languages and Cultures 321 (Topic 19), Middle Eastern Studies 342 (Topic 27), and Women's and Gender Studies 340 (Topic 27). Designed to give students a foundation in the substantive teachings of the shariah, which comprises not only what we normally think of as law, but also ethics and etiquette. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic 5), Middle Eastern Languages and Cultures 321 (Topic: Islamic Law), 321 (Topic 19), Middle Eastern Studies 342 (Topic 27), Religious Studies 358 (Topic: Islamic Law), 358 (Topic 9), 358K, Women's and Gender Studies 340 (Topic 27). Prerequisite: Upper-division standing.

### **R S 358L. Rule of Law in the Middle East.**

Same as Government 3660, Islamic Studies 373 (Topic 25), and Middle Eastern Studies 341 (Topic 11). Three lecture hours a week for one semester. Only one of the following may be counted: Government 365N (Topic: Rule of Law in the Mid East), 3660, Islamic Studies 373 (Topic: Rule of Law in the Mid East), 373 (Topic 25), Middle Eastern Studies 341 (Topic: Rule of Law in the Mid East), 341 (Topic 11), Religious Studies 358 (Topic: Rule of Law in the Mid East), 358L. Prerequisite: Upper-division standing.

### **R S 358M. Muslim Women: Past and Present I.**

Same as Islamic Studies 372 (Topic 12) and Women's and Gender Studies 340 (Topic 22). Survey of the role of women in Islamic societies from the Middle Ages to the eighteenth century, with a glimpse into modern times. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 372 (Topic 12), Religious Studies 358 (Topic: Muslim Women: Past and Present I), 358 (Topic 12), 358M, Women's and Gender Studies 340 (Topic 22). Prerequisite: Upper-division standing.

### **R S 358N. Muslim Women: Past and Present II.**

Same as Islamic Studies 372 (Topic 13) and Women's and Gender Studies 340 (Topic 23). Survey of the role of women in the modern Muslim world, with a glimpse into historical developments within Islamic societies. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 372 (Topic 13), Religious

Studies 358 (Topic 13), 358N, Women's and Gender Studies 340 (Topic 23). Prerequisite: Upper-division standing.

### **R S 358O. Origins of Monotheism.**

Same as Jewish Studies 364 (Topic 13) and Middle Eastern Studies 343 (Topic 10). Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 364 (Topic: Origins of Monotheism), 364 (Topic 13), Middle Eastern Studies 343 (Topic: Origins of Monotheism), 343 (Topic 10), Religious Studies 358 (Topic: Origins of Monotheism), 358O. Prerequisite: Upper-division standing.

### **R S 358P. History of the Pilgrimage to Mecca, Hajj.**

Same as History 367E and Middle Eastern Studies 343 (Topic 7). Survey of the Hajj, Islam's major pilgrimage to Mecca and the nearby Holy Places. It will examine the Islamic pilgrimage from its beginnings in the seventh century C.E. through today. Three lecture hours a week for one semester. Only one of the following may be counted: History 364G (Topic: History of the Pilgrimage to Mecca, Hajj), 364G (Topic 14), 367E, Middle Eastern Studies 343 (Topic: History of the Pilgrimage to Mecca), 343 (Topic 7), Religious Studies 358 (Topic: History of the Pilgrimage to Mecca), 358 (Topic 24), 358P. Prerequisite: Upper-division standing.

### **R S 358Q. Supervised Research.**

Individual instruction. Prerequisite: Upper-division standing.

### **R S 358R. Islamic Ethics.**

Same as Islamic Studies 340 (Topic 9), Middle Eastern Studies 342 (Topic 58), and Women's and Gender Studies 340 (Topic 80). Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic: Islamic Ethics), 340 (Topic 9), Middle Eastern Studies 342 (Topic: Islamic Ethics), 342 (Topic 58), Religious Studies 358 (Topic: Islamic Ethics), 358R, Women's and Gender Studies 340 (Topic: Islamic Ethics), 340 (Topic 80). Prerequisite: Upper-division standing.

### **R S 358S. Saints and Shrines in Islam.**

Same as Asian Studies 340I. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Saints & Shrines In Islam), 340 (Topic 23), 340I, Religious Studies 358 (Topic 23), 358S. Prerequisite: Upper-division standing.

### **R S 358T. Sacred and Ceremonial Textiles.**

Same as Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Middle Eastern Languages and Cultures 321 (Topic 34), and Women's and Gender Studies 340 (Topic 57). Textiles and material objects indigenous to the Islamic world, and what they reveal about the culture of various Islamic societies. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Middle Eastern Languages and Cultures 321 (Topic: Sacred and Ceremonial Textiles), 321 (Topic 34), Religious Studies 358 (Topic 11), 358T, Textiles and Apparel 365 (Topic: Sacred and Ceremonial Textiles), Women's and Gender Studies 340 (Topic 57). Prerequisite: Upper-division standing.

### **R S 358U. Islamic Theology.**

Same as Core Texts and Ideas 357, Islamic Studies 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 27), and Middle Eastern Studies 342 (Topic 35). Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 375 (Topic 2), 357, Islamic Studies 340 (Topic 7), Middle Eastern Languages and Cultures 321 (Topic 27), Middle Eastern Studies 342 (Topic 35), Religious Studies 358 (Topic 14), 358U. Prerequisite: Upper-division standing.

### **R S 358V. Veiling in the Muslim World.**

Same as Asian Studies 372F, Islamic Studies 372 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 22), and Women's and Gender Studies 340 (Topic 11). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 14), 372F, Islamic Studies 372 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 22), Religious Studies 358 (Topic 5), 358V, Women's and Gender Studies 340 (Topic 11). Prerequisite: Upper-division standing.

### **R S 358W. Gender and Art in the Muslim World.**

Same as Asian Studies 374D, Islamic Studies 373 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 31), Middle Eastern Studies 342 (Topic 40), and Women's and Gender Studies 340 (Topic 62). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 46), 374D, Islamic Studies 373 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 31), Middle Eastern Studies 342 (Topic 40), Religious Studies 358 (Topic 20), 358W, Women's and Gender Studies 340 (Topic 62). Prerequisite: Upper-division standing.

### **R S 359C. Graffiti and Poster Art in the Islamic World.**

Same as Anthropology 324L (Topic 59), Islamic Studies 373 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic 36), Middle Eastern Studies 342 (Topic 44), and Women's and Gender Studies 340 (Topic 67). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Graffiti/Poster Art: Islm Wrld), 324L (Topic 59), Islamic Studies 373 (Topic: Graffiti/Poster Art: Islm Wrld), 373 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic: Graffiti/Poster Art: Islam World), 321 (Topic 36), Middle Eastern Studies 342 (Topic: Graffiti/Poster Art: Islam World), 342 (Topic 44), Religious Studies 358 (Topic: Graffiti/Poster Art: Islm Wrld), 358 (Topic 21), 359C, Women's and Gender Studies 340 (Topic: Graffiti/Poster Art: Islm Wrld), 340 (Topic 67). Prerequisite: Upper-division standing.

### **R S 359D. Islam in the Early Modern World: Religion and Culture.**

Same as History 367S, Islamic Studies 373 (Topic 20), and Middle Eastern Studies 343 (Topic 20). Examine a history of the religious and cultural development across the Islamic world between the thirteenth and eighteenth centuries, stemming from the rise of the Mongols and the end of the caliphate. Explore the early modern Muslim empires of the Ottomans, Safavids, and the Mughals. Three lecture hours a week for one semester. Only one of the following may be counted: History 364G (Topic: Islam Early Mod World:Rel/Cult), 367S, Islamic Studies 372 (Topic: Islam Early Mod World:Rel/Cult), 373 (Topic 20), Middle Eastern Studies 343 (Topic: Islam Early Mod World:Rel/Cult), 343 (Topic 20), Religious Studies 358 (Topic: Islam Early Mod World:Rel/Cult), 358 (Topic 22), 359D. Prerequisite: Upper-division standing.

### **R S 359E. Shia Islam.**

Same as Asian Studies 340W and Islamic Studies 340 (Topic 8). Examine how the first century of Islamic history inaugurated debates concerning authority, piety, and justice and how these debates have continued to the present. Explore the social forces and ideologies that shaped Shiism. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 340 (Topic: Shia Islam), 340W, Islamic Studies 340 (Topic: Shia Islam), 340 (Topic 8), Religious Studies 358 (Topic: Shia Islam), 359E. Prerequisite: Upper-division standing.

### **R S 359M. Arts of Islam, 650-1500.**

Same as Art History 328J. Early Islamic art and architecture, with an emphasis on interconnections between the Islamic world and Europe. Examines unique ways Islamic visual culture developed out of the classical and late antique world. Artworks will be contextualized within

early Islamic history, religion, and culture. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328J, 363 (Topic: Arts of Islam: Caliphs-Sultans), Islamic Studies 372 (Topic: Arts of Islam: Caliphs-Sultans), Middle Eastern Languages and Cultures 321 (Topic: Arts of Islam: Caliphs-Sultans), Middle Eastern Studies 342 (Topic: Arts of Islam: Caliphs-Sultans), Religious Studies 358 (Topic 17), 359M.

### **R S 359N. Arts of Islam 1500-Present.**

Same as Art History 328K. Later Islamic art and architecture, beginning with the world empires of the Ottomans, Safavids, and Mughals, and extending into the modern and contemporary periods. Subjects include the social and historical context of Islamic art in these periods and its unique visual culture. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 328K, 363 (Topic: Arts of Islam, 1500-1800), 363 (Topic: Arts of Islam: 1500-Present), Islamic Studies 372 (Topic: Arts of Islam, 1500-1800), 373 (Topic: Arts of Islam: 1500-Present), Middle Eastern Languages and Cultures 321 (Arts of Islam: 1500-Present), Middle Eastern Studies 342 (Topic: Arts of Islam: 1500-Present), Religious Studies 358 (Topic 18), 359N.

### **R S 360C. African Religious Culture and Creativity.**

Same as African and African Diaspora Studies 340T and Theatre and Dance 357T (Topic 7). Examine religion as an aesthetic practice and explore the inventiveness of the imagination that underlines African religious practices. Study religious practices spanning from the pre-colonial and post-colonial eras to the contemporary period particularly in urban centers. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340T, 372G (Topic: Afr Relig Cultur/Creativity), Religious Studies 360 (Topic: Afr Relig Cultur/Creativity), 360C, Theatre and Dance 357T (Topic: Afr Relig Cultur/Creativity), 357T (Topic 7). Prerequisite: For theatre and dance majors, consent of instructor; for all others, upper-division standing.

### **R S 361. Topics in Religious Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### **R S 362. Independent Research in Religious Studies.**

Faculty-directed research. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **R S 365D. Hermits, Monks, and Saints in Early Christianity.**

Same as Classical Civilization 348C and Middle Eastern Studies 342 (Topic 54). Examine individual and communal forms of Christian monasticism from the first through fifth centuries CE. Explore the social, economic and religious factors that may have made a life of self-denial attractive to many early Christians and the role of authority in these movements. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Hermits, Monks, and Saints in Early Christianity), 348C, Middle Eastern Studies 342 (Topic: Hermits, Monks, and Saints in Early Christianity), 342 (Topic 54), Religious Studies 365 (Topic: Hermits, Monks, and Saints in Early Christianity), 365D. Prerequisite: Upper-division standing.

### **R S 365G. Death and the Afterlife in Graeco-Roman Antiquity.**

Same as Classical Civilization 348G and Core Texts and Ideas 328D. Explore the afterlife from Near Eastern myths and Homer through Greek and Roman antiquity to the early Church Fathers. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 348 (Topic: Death/Afterlife Graeco-Roman), 348G, Core Texts and Ideas 328D, Religious Studies 365G. Prerequisite: Upper-division standing.

### **R S 365J. The Book of Job.**

Same as Core Texts and Ideas 354J, Jewish Studies 363 (Topic 29), and Middle Eastern Studies 342 (Topic 67). Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 354J, 375 (Topic: The Book of Job), Jewish Studies 363 (Topic: The Book of Job), 363 (Topic 29), Middle Eastern Studies 342 (Topic: The Book of Job), 342 (Topic 67), Religious Studies 361 (Topic: The Book of Job), 365 (Topic: The Book of Job), 365J. Prerequisite: Upper-division standing.

### **R S 366C. The Bible in the Colonial Americas.**

Same as Core Texts and Ideas 355, History 363F, and Latin American Studies 366 (Topic 34). Varied perspectives on the central role played by the Old Testament in the construction of colonial cultures in the Americas. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 355, 375 (Topic 6), History 363F, 363K (Topic 5), Latin American Studies 366 (Topic 34), Religious Studies 366 (Topic 3), 366C. Prerequisite: Upper-division standing.

### **R S 366D. Religions of the Caribbean.**

Same as African and African Diaspora Studies 345G, Anthropology 323D, and Latin American Studies 322D. Examine the histories and politics of religious practices in the Greater Caribbean, encompassing the islands and Central American coasts as well as the continental diasporas, from Vodou and Rastafari to popular Hinduism. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Religions of the Caribbean) 345G, Anthropology 324L (Topic: Religions of the Caribbean), 323D, Latin American Studies 324L (Topic: Religions of the Caribbean), 322D, Religious Studies 366 (Topic: Religions of the Caribbean), 366 (Topic 2), 366D. Prerequisite: Upper-division standing.

### **R S 366E. Jewish Cuba.**

Same as Anthropology 325V, Jewish Studies 365 (Topic 16), and Latin American Studies 324S. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Jewish Cuba), 325V, Jewish Studies 365 (Topic: Jewish Cuba), 365 (Topic 16), Latin American Studies 324L (Topic: Jewish Cuba), 324S, Religious Studies 366 (Topic: Jewish Cuba), 366E. Prerequisite: Upper-division standing.

### **R S 366N. African Religion in the New World.**

Same as African and African Diaspora Studies 345P and Latin American Studies 322N. Explore the contributions of scholars and artists who engage African diaspora religions in their work through multiple conceptual approaches. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345P, 370 (Topic: Afr Religion in New World), 374E (Topic: Afr Religion in New World), Latin American Studies 322 (Topic: Afr Religion in New World), 322N, Religious Studies 361 (Topic: Afr Religion in New World), 366 (Topic: African Religion in New World), 366N. Prerequisite: Upper-division standing.

### **R S 368. Topics in Religions of Latin America.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **R S 368C. When Christ was King.**

Same as History 347P and Latin American Studies 366 (Topic 35). The history of Catholicism in twentieth-century Mexico, often seen as Latin America's most "Catholic" nation. Three lecture hours a week for one semester. Only one of the following may be counted: History 347P, 350L (Topic: When Christ was King), Latin American Studies 366 (Topic: When

Christ was King), 366 (Topic 35), Religious Studies 368 (Topic: When Christ was King), 368C. Prerequisite: Upper-division standing.

### **R S 368D. Church and State in Latin America.**

Same as History 346W and Latin American Studies 366 (Topic 21). History of Church-state relations and religious politics in modern Latin America, with emphasis on the nineteenth to early twentieth-century periods. Three lecture hours a week for one semester. Only one of the following may be counted: History 346W, Latin American Studies 366 (Topic 21), Religious Studies 368 (Topic 1), 368D. Prerequisite: Upper-division standing.

### **R S 368E. The Religious Tradition in Latin America.**

Same as History 350L (Topic 76) and Latin American Studies 366 (Topic 25). Explores the different ways in which religion has helped to define the political, social, and philosophical structures of Latin America from colonial times to the present. Three lecture hours a week for one semester. Only one of the following may be counted: History 350L (Topic 76), Latin American Studies 366 (Topic 25), Religious Studies 368 (Topic 3), 368E. Prerequisite: Upper-division standing.

### **R S 368F. Religion, Conquest, and Conversion in Colonial Latin America.**

Same as History 363D and Latin American Studies 366 (Topic 29). Focuses on the histories of the Catholic Church and religious devotion in colonial Latin America between 1521 and 1821. Three lecture hours a week for one semester. Only one of the following may be counted: History 363D, 363K (Topic 3), Latin American Studies 366 (Topic 29), Religious Studies 368 (Topic 4), 368F. Prerequisite: Upper-division standing.

### **R S 373C. Religious Ethics and Human Rights.**

Examine the grounds for human rights, and the relations between rights and religions. Three lecture hours a week for one semester. Religious Studies 373 (Topic: Religious Ethics and Human Rights) and 373C may not both be counted. Prerequisite: Upper-division standing.

### **R S 373D. The History of Christmas.**

A historical and cross-cultural examination of the evolution of the modern Christmas holiday, beginning with the birth stories of Jesus in the New Testament and concluding with the supposed "War on Christmas" in the 21st Century America. Three lecture hours a week for one semester. Religious Studies 373 (Topic: History of Christmas) and 373D may not both be counted. Prerequisite: Upper-division standing.

### **R S 373E. Anthropology Of Religion.**

Same as Anthropology 324F. Examine a genealogy of the anthropology of religion around the globe from the nineteenth century to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324F, 324L (Topic: Anthropology Of Religion), Religious Studies 373 (Topic: Anthropology Of Religion), 373E. Prerequisite: Upper-division standing.

### **R S 373F. Creation.**

Same as European Studies 346 (Topic 13) and History 350L (Topic 80). Explores the writings of premodern authors as related to creation and early developments in western theology, science, and philosophy. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 13), History 350L (Topic 80), Religious Studies 373 (Topic 5), 373F. Prerequisite: Upper-division standing.

### **R S 373G. Goddesses in World Religions and Cultures.**

Same as Anthropology 322J, Asian Studies 340F, and Women's and Gender Studies 340 (Topic 30). Historical and cross-cultural overview

of the relationship between feminine and religious cultural expressions through comparative examinations and analyses of various goddess figures in world religions. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322J, 324L (Topic: Goddesses in World Religions and Cultures), Asian Studies 340 (Topic 7), 340F, Religious Studies 373 (Topic 3), 373G, Women's and Gender Studies 340 (Topic 30). Prerequisite: Upper-division standing.

### **R S 373J. Creation and Evolution: Human Origins in Scientific and Religious Discourses.**

Same as Anthropology 324L (Topic 68). Examines evolutionary theory, intelligent design, and creationism, and how they interact. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Creation and Evolution in America), 324L (Topic 68), Religious Studies 346 (Topic: Creation and Evolution), 373 (Topic 8), 373J. Prerequisite: Upper-division standing.

### **R S 373K. Extraterrestrial Intelligence: Culture, Religion, and Imagination.**

Same as Anthropology 324L (Topic 71). Focusing primarily on the 20th and 21st Centuries, explores the search for extraterrestrial intelligence (SETI) and considers how these ideas have intersected with other aspects of society, particularly religion, including recent arguments that SETI itself has developed into a religion. Examines meanings and motivations behind issues such as Percival Lowell's quest to prove the existence of canals on Mars and the development of Scientology. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Sentience, Culture, and Religion: SETI), 324L (Topic 71), Religious Studies 373 (Topic: Sentience, Culture, and Religion: SETI), 373 (Topic 9), 373K. Prerequisite: Upper-division standing.

### **R S 373L. Science, Magic, and Religion.**

Same as African and African Diaspora Studies 351S, American Studies 327K, and Anthropology 324C. Historical and cross-cultural overview of the constructed concepts of magic, science, and religion through comparative examinations of cultural contexts from the Islamic world, western Europe, the Caribbean, the U.S., and Mozambique. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372G (Topic: Science/Magic/Religion), 351S, American Studies 327 (Topic: Science, Magic, Religion), 327K, Anthropology 324L (Topic: Science, Magic, & Religion), 324C, Religious Studies 373 (Topic: Science, Magic, & Religion), 373 (Topic 6), 373L. Prerequisite: Upper-division standing.

### **R S 373M. Biomedicine, Ethics, and Culture.**

Same as Anthropology 323N and Asian Studies 361 (Topic 29). Examines ethical questions such as the allocation of medical resources, stem cell research and cloning, organ transplantation, abortion, human experimentation, prolonging life and the right to die, suicide, euthanasia, and diagnosis and treatment of illnesses, explored from a global perspective. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323N, 324L (Topic: Biomedicine, Ethics, & Culture), Asian Studies 361 (Topic: Biomedicine, Ethics, & Culture), 361 (Topic 29), Religious Studies 373 (Topic: Biomedicine, Ethics, & Culture), 373M. Prerequisite: Upper-division standing.

### **R S 373N. Religions in Contact.**

Same as Asian Studies 340V. Critically examine the theories (religious othering, conversion, reinterpretation, appropriation, etc.) of how one religion responds to contact with another. Explore the ways in which religious actors grapple with religious plurality, draw or ignore boundaries, and form religious identities. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies

340 (Topic: Religions in Contact), 340V, Religious Studies 373 (Topic: Religions in Contact), 373N. Prerequisite: Upper-division standing.

### **R S 373S. Sport, Religion, and Society.**

Same as Anthropology 323C. Explore sport as it relates to ritual and religious practice and examine the meaning and nature of sport in cross-cultural perspectives. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Sport, Religion, and Society), 323C, Religious Studies 373 (Topic 4), 373S. Prerequisite: Upper-division standing.

### **R S 373T. Talk, Text, and God.**

Same as Anthropology 320I. Introduction to the anthropological study of Christianity, particularly in colonial and post-colonial settings. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 320I, 320L (Topic: Talk, Text, and God), 320L (Topic 14), Religious Studies 373 (Topic: Talk, Text, and God), 373T. Prerequisite: Upper-division standing.

### **R S 375S. Advanced Seminars in Religious Studies.**

Discussion and research-based study of topics in religious studies. Includes theoretical approaches to the study of religion. Three lecture hours a week for one semester. Religious Studies 373 and 375S may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and at least six semester hours of coursework in religious studies.

**Topic 1: What is Religion?** Examines classic theories about religion from the last 150 years of academic study: psychological, sociological, economic, phenomenological, and anthropological. Religious Studies 373 (Topic: What is Religion?) and 375S (Topic 1) may not both be counted.

**Topic 2: Comparing Religions.** Same as Asian Studies 379 (Topic 10). A discussion of major comparative approaches in the study of religion. Only one of the following may be counted: Asian Studies 340 (Topic: Introduction to Comparative Religion), 340 (Topic 11), 379 (Topic 10), Religious Studies 373 (Topic: Introduction to Comparative Religion), 375S (Topic 2). Additional prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing and at least six semester hours of coursework in religious studies.

**Topic 3: Mystics, Visionaries, and Heretics in Medieval Europe.** Same as Ancient History and Classical Civilization 330 (Topic 3) and History 350L (Topic 74). Examines particular mystical and visionary experiences within the context of medieval European Christianity. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 330 (Topic 3), History 350L (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 350L (Topic 74), Religious Studies 375S (Topic: Mystics, Visionaries and Heretics in Medieval Europe), 375S (Topic 3).

**Topic 4: Radical Religion: Ascetics and Holy Persons.** Same as Asian Studies 379 (Topic 8). Explores asceticism and the concepts, practices, and goals associated with this radical way of life through case studies from various religions. Subjects include theories of the body and of culture, as well as issues of social status, gender, devotion, and violence. Only one of the following may be counted: Asian Studies 379 (Topic: Radical Religion: Ascetics), 379 (Topic 8), Religious Studies 375S (Topic: Radical Religion: Ascetics), 375S (Topic 4).

**Topic 5: Religion, the Supernatural, and the Paranormal.** Examination of extraordinary events, such as miracles, exorcisms, ghosts, psychic abilities, UFOs, and other related phenomena. Discussion of the similarities and dissimilarities between religious and non-religious contexts for such happenings, as well as possible explanations for

them. Religious Studies 375S (Topic: Religion, Supernatural, and the Paranormal) and Religious Studies 375S (Topic 5) may not both be counted.

**Topic 6: Religion in the American South.** Same as American Studies 327F. Examines the social construction and cultural meaning of southern religion using fictional characterizations, philosophical reflections, historical accounts, and theoretical comparisons. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic 6), 327F, Religious Studies 375S (Topic: Religion in the American South), 375S (Topic 6). Additional prerequisite: Upper-division standing and at least six semester hours of coursework in religious studies.

**Topic 7: Religions Of No Religion.** Examine religious practices that are not religion and critical analysis of the category of religion and its contested borders. Religious Studies 375S (Topic: Religions of No Religion) and 375S (Topic 7) may not both be counted.

**Topic 8: The Crusades.** Same as Ancient History and Classical Civilization 330 (Topic 5), European Studies 346 (Topic 38), and History 344S. An exploration of the religious encounters between eastern and western Christians, Christian heretics, Jews, Muslims, and polytheists; political, military, and cultural changes of the high middle ages; and the ways that crusading ideas and symbols have been reused in contemporary politics and popular culture. Three lecture hours a week for one semester. Only one of the following may be counted: Ancient History and Classical Civilization 330 (Topic: The Crusades), 330 (Topic 5), European Studies 346 (Topic: The Crusades), 346 (Topic 38), History 344S, 350L (Topic: The Crusades), Religious Studies 375S (Topic: The Crusades), 375S (Topic 8). Additional prerequisite: Upper-division standing

**Topic 9: Religion in the Workplace.** Examine the role of religion in the formation of the workplace in the United States. Survey a range of case studies in order to explore how religion has shaped how Americans understand the relationship between human labor and moral community. Religious Studies 375S (Topic: Religion in the Workplace) and 375S (Topic 9) may not both be counted.

### **R S 679H. Honors Tutorial Course.**

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper on a specific topic in religious studies, to be completed during the second semester. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Religious Studies Honors Program; for 679HB, Religious Studies 679HA.

## **Graduate Courses**

### **R S 180. Proseminar.**

An introduction to the research methodology and ancillary disciplines used in current religious studies. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **R S 380R. Topical Readings in Religious Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 381. Conference Course in Religious Studies.**

Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **R S 383C. Topics in Comparative Religion.**

Advanced treatment of selected problems, topics, or themes concerning comparative approaches to the study of religion. Three lecture hours a

week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 383M. Theory and Method in the Study of Religion.**

Introduction to the history of the discipline, discussion of classical interpretative works, and examination of current theoretical and methodological developments in the field. Three lecture hours a week for one semester. Religious Studies 383 (Topic: Theory and Method in the Study of Religion) and 383M may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 383T. Topics in Theoretical Approaches to the Study of Religion.**

Advanced treatment of selected problems, topics, or themes concerning theoretical approaches to the study of religion. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 384D. Doctoral Seminar in Religious Studies.**

Advanced seminar designed to introduce students to the profession of religious studies. Includes development and preparation of a dissertation proposal, placing scholarship within a broader theoretical context, and pedagogical issues in teaching religious studies at the undergraduate college level. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 385K. Early Jewish and Christian Literature I.**

A survey of major categories of early Jewish and Christian literature by genre in light of comparative historical research. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 385L. Early Jewish and Christian Literature II.**

A survey of major categories of early Jewish and Christian literature by genre in light of comparative historical research. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 386C. Critical Issues in Christian Origins.**

Studies of key scholarly works in and critical approaches to the study of Christian origins in their historical, social, and cultural contexts. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 386H. Critical Issues in the Hebrew Bible.**

Advanced studies of critical issues in research on key areas of study in the Hebrew Bible and its environment. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 386M. Critical Issues in Ancient Mediterranean Religions.**

Studies of key scholarly works in and critical approaches to the study of ancient Mediterranean religions in their historical, cultural, and archaeological contexts. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 387M. Seminars in Ancient Mediterranean Religions.**

Advanced treatment of selected problems, topics, or themes in the study of the religions of the ancient Mediterranean world. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 2: Seeing Gods.** Same as Art History 382 (Topic 2). Examine textual and theoretical accounts of the religious phenomenon of epiphany across various belief systems. Only one of the following may be counted: Art History 382 (Topic: Seeing Gods), 382 (Topic 2), Religious Studies 387M (Topic: Seeing Gods), Religious Studies 387M (Topic 2).

### **R S 388E. Core Readings in Religion in Europe.**

Discussion of key scholarly works in and major approaches to the study of religion in Europe. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 388J. Core Readings in Jewish Studies.**

Discussion of key scholarly works in and major approaches to Jewish studies. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 388M. Core Readings in Islamic Studies.**

Discussion of key scholarly works in and major approaches to the study of Islam and Muslim societies. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 389R. Research Seminars on Religion in Europe and the Middle East.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 390T. Topics in European and Middle Eastern Religion.**

Advanced treatment of selected problems, topics, or themes concerning religion in Europe and the Middle East. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 1: Islamic Studies: Discipline Intro.** Only one of the following may be counted: Religious Studies 390T (Topic: Islamic Studies: Discipline Intro), 390T (Topic 1), Middle Eastern Languages and Cultures 380 (Topic: Islamic Studies: Discipline Intro).

**Topic 2: Sovereignty in Islam: Theory & Practice.** Same as Asian Studies 391 (Topic 8). A historical and comparative survey of the concepts and rituals of sovereignty in Muslim societies across the Middle East, Central Asia, and South Asia, with an emphasis on the pre-modern era. Only one of the following may be counted: Asian Studies 391 (Topic: Sovereignty in Islam: Theory & Practice), 391 (Topic 8), History 381 (Topic: Sovereignty in Islam: Theory & Practice), Middle Eastern Studies 385 (Topic: Sovereignty in Islam: Theory & Practice), 386 (Topic: Sovereignty in Islam: Theory & Practice), Religious Studies 390T (Topic: Sovereignty in Islam: Theory & Practice), 390T (Topic 2).

### **R S 391L. Approaches to the Study of Religion in Latin America.**

An introduction to the history of scholarship about religion in Latin America and the Caribbean. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 391N. Approaches to the Study of Religion in the United States.**

An introduction to the history of scholarship about religion in the United States, including recent research on the Atlantic world, the Pacific world, and the Western Hemisphere. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 392T. Topics in Religion in the Americas.**

Advanced treatment of selected problems, topics, or themes concerning religion in the Americas. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 393C. Core Readings in Religion in Asia.**

Discussion of key scholarly works in and major approaches to the study of religion in Asia. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 393F. Topics in the Foundations of Asian Religions.**

Introduction to and analysis of primary sources for the study of religion in Asia. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 394T. Topics in Religion in Asia.**

Advanced treatment of selected problems, topics, or themes concerning religion in Asia. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser.

**Topic 1: The Body in Indian Medicine and Myth.** Same as Asian Studies 384 (Topic 8). Examines issues of embodiment in South Asia in various life stages, including conception, infancy, childhood, adulthood, and death drawn from various historical periods, medical traditions, religious narratives, and sociological and anthropological studies. Only one of the following may be counted: Asian Studies 384 (Topic: Body in Indian Medicine/Myth), 384 (Topic 8), Religious Studies 394T (Topic: Body in Indian Medicine/Myth), 394T (Topic 1).

### **R S 396E, 696E, 996E. Examination Preparation.**

Designed for religious studies doctoral students preparing for qualifying examinations. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of graduate adviser.

### **R S 396P, 696P, 996P. Dissertation Prospectus.**

Designed for Religious Studies doctoral students preparing a dissertation proposal. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in religious studies and consent of the graduate adviser; for 698B, Religious Studies 698A.

### **R S 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in religious studies and consent of the graduate adviser.

### **R S 398T. Supervised Teaching in Religious Studies.**

Weekly group meetings with the supervising instructor, individual consultations, and reports. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **R S 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Rhetoric and Writing Courses**

## **Rhetoric and Writing: RHE**

### **Lower-Division Courses**

#### **RHE 306 (TCCN: ENGL 1301). Rhetoric and Writing.**

An introductory writing course that includes instruction in practical reasoning and the principles of rhetoric. Three lecture hours a week for one semester. Only one of the following may be counted: English 603A, 303C, Rhetoric and Writing 306, 306Q, Tutorial Course 603A, 303C. Prerequisite: A passing score on the writing section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

#### **RHE 306Q. Rhetoric and Writing for Nonnative Speakers of English.**

Enrollment limited to nonnative speakers of English. An introductory writing course that includes instruction in practical reasoning and the principles of rhetoric, as well as grammar and mechanics of standard American English. Five lecture hours a week for one semester. Only one of the following may be counted: English 603A, 303C, Rhetoric and Writing 306, 306Q, Tutorial Course 603A, 303C. Prerequisite: Students must present their scores on the Test of English as a Foreign Language (TOEFL) to the Rhetoric and Writing Office prior to registering.

#### **RHE 309K, 409K. Topics in Writing.**

A writing course focused on studying and practicing methods of rhetorical analysis within the contexts of disputed issues of academic, political, or cultural significance. Three or four lecture hours a week for one semester. May be repeated once for credit when the topics vary. Prerequisite: Rhetoric and Writing 306 or 306Q.

#### **RHE 309S. Critical Reading and Persuasive Writing.**

A writing course designed to teach advanced rhetorical analysis and advocacy on public issues. Three lecture hours a week for one semester. Prerequisite: Rhetoric and Writing 306 or 306Q.

#### **RHE 310. Intermediate Expository Writing.**

An intensive writing workshop, focusing on style and readability. Three lecture hours a week for one semester. Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

#### **RHE 312. Writing in Digital Environments.**

A writing course focused on using, interpreting, and analyzing traditional and emerging technologies. Taught using networked computers. Three lecture hours a week for one semester. Prerequisite: Rhetoric and Writing 306.

#### **RHE 314. Computer Programming for the Humanities.**

Introduction to the fundamentals of computer programming and practice in computation as a rhetorical activity. Three lecture hours a week for one semester. Liberal Arts 319 (Topic: Computer Programming: Liberal Arts) and Rhetoric and Writing 314 may not both be counted.

#### **RHE 315. Introduction to Visual Rhetoric.**

A writing course designed to teach students to analyze and produce visual and nonverbal forms of rhetoric. Three lecture hours a week for one semester. Prerequisite: Rhetoric and Writing 306.

### **RHE 317 (TCCN: ENGL 2311). Technical Writing.**

Reading and writing in professional and technological environments. Three lecture hours a week for one semester. Prerequisite: English 603A, Rhetoric and Writing 306, 306Q, or Tutorial Course 603A.

### **RHE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Rhetoric and Writing.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Rhetoric and Writing. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **RHE 321. Principles of Rhetoric.**

Examines major terms, issues, and approaches in the theory and practice of rhetoric and writing. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

### **RHE 325M. Advanced Writing.**

An advanced course designed to improve and refine writing. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

### **RHE 328. Topics in Professional and Technical Writing for Liberal Arts Majors.**

A professional and technical writing course exploring topics such as writing for nonprofit organizations, writing for government, and writing for industry. Designed for students in nontechnical fields. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

**Topic 1: Magazine Writing and Publishing.** Introduction to magazine writing, editing, and publishing, with an emphasis on the nonfiction article.

**Topic 2: Writing for Nonprofits.** Studies the writing genres and rhetorical strategies that are routinely used in nonprofit organizations. Covers business reports, grant writing, and feature writing.

**Topic 4: Writing for Entrepreneurs.** Studies the genres and rhetorical strategies that entrepreneurs use to persuade stakeholders, including heuristics for developing business models, market reports, and pitches. Rhetoric and Writing 328 (Topic: Writing for Entrepreneurs) and 328 (Topic 4) may not both be counted.

**Topic 5: Writing for Digital Media.** Examine the concepts, practices, and technologies associated with composing in digital spaces. Rhetoric and Writing 328 (Topic: Writing for Digital Media) and 328 (Topic 5) may not both be counted.

**Topic 6: Technical Communication and Wicked Problems.** Examine the nature of wicked problems and the roles for technical communicators, including effective strategies for engaging public audiences and facilitating stakeholder dialogue. Rhetoric and Writing 328 (Topic: Tech Comm & Wicked Problems) and 328 (Topic 6) may not both be counted

### **RHE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Rhetoric and Writing.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser

in the Department of Rhetoric and Writing. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **RHE 330C. Advanced Studies in Digital Rhetoric.**

An advanced course that examines the role of information technologies in communication. Taught using networked computers. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

**Topic 2: Designing Text Ecologies.** Explores the function and interaction of texts in the workplace. Emphasis on research, analysis, and design of the strategic, tactical, and operational aspects of texts.

**Topic 4: Writing and Photography.** Examination of issues in the history of photography and how images and words work in combination.

Emphasis on improving skills in analysis, writing, and photography. Rhetoric and Writing 330C (Topic: Writing and Photography) and 330C (Topic 4) may not both be counted.

**Topic 5: Ethics and New Media.** Exploration of contemporary ethical dilemmas and principles arising with emergent technologies, and their impact on rhetoric and writing. Rhetoric and Writing 330C (Topic: Ethics and New Media) and 330C (Topic 5) may not both be counted.

**Topic 6: Networked Writing.** Examines how writers present themselves and their arguments across a range of media and genres. Practices rhetorical skills within digital networks. Rhetoric 330C (Topic: Networked Writing) and 330C (Topic 6) may not both be counted.

**Topic 7: Digital Storytelling.** Examines and practices the development of narrative through multiple media (audio, visual, video, et al). Rhetoric and Writing 330C (Topic: Digital Storytelling) and 330C (Topic 7) may not both be counted.

**Topic 8: Writing with Sound.** Introduces sound studies and practices techniques for recording, editing, and publishing writing for and with sound. Rhetoric and Writing 330C (Topic: Writing with Sound) and 330C (Topic 8) may not both be counted.

**Topic 9: Digital Self and Rhetoric.** Examines the pervasiveness of digital culture and cultivates strategies for presenting one's digital self through academic, professional, and civic venues. Rhetoric and Writing 330C (Topic: Digital Self and Rhetoric) and 330C (Topic 9) may not both be counted.

**Topic 10: Access Designed.** An introduction to disability studies and accessible design by reading, discussing, designing, and practicing with the technologies and techniques that compose accessible writing and devices. Rhetoric and Writing 330C (Topic: Access Designed) and 330C (Topic 10) may not both be counted.

**Topic 11: Mobile Environments.** Examine the principles of user experience (UX) design, specifically the creation of low-fidelity mobile application solutions, which are designed to help users explore and create meaningful and personally relevant experiences within their environments. Rhetoric and Writing 330C (Topic: Mobile Environments) and 330C (Topic 11) may not both be counted.

**Topic 12: Information Design.** Examine the fundamental principles of document and information design that inform practical and theoretical skills related to desktop publishing, visual communication, and publication production. Rhetoric and Writing 330C (Topic: Information Design) and 330C (Topic 12) may not both be counted.

**Topic 13: Rhetoric and Data Visualization.** Explore the principles for designing tables, graphs, and figures that are accessible and persuasive to readers and that are accountable to the data. Examine and critique visualizations from academic and popular media. Create visualizations from real-world data sets. Rhetoric and Writing 330C (Topic: Rhet and Data Visualization) and 330C (Topic 13) may not both be counted.

**Topic 14: Rhetorical Metrics.** Explore an introduction to text analytics with a focus on computational and statistical methods within rhetorical studies. Rhetoric and Writing 330C (Topic: Rhetorical Metrics) and 330C (Topic 14) may not both be counted.

**Topic 15: Rhetoric, Risk, and Environmental Justice.** Explore the intersection of rhetoric, social justice, and environment through the theoretical lens of environmental justice. Rhetoric and Writing 330C (Topic: Rhetoric/Risk/Environmental Justice) and 330C (Topic 15) may not both be counted.

### RHE 330D. History of Rhetoric.

An advanced survey of figures and movements in the history of rhetoric, from classical to contemporary. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

**Topic 1: Sophistry and the Invention of Rhetoric.** Examines the role of sophists and sophistry in the development and practice of rhetoric as an art, from antiquity to modern times.

**Topic 2: Kairos and the Rhetorical Situation.** Introduction to kairos, a key concept in rhetorical theory from ancient to modern times, that focuses attention on making a text appropriate for its historical situation. Explores why some writing succeeds at attracting attention and inspiring action, while some writing fails.

**Topic 3: Deliberating War.** Studies the recurrent means of making arguments for and against war, and the role of rhetoric in public deliberation. Rhetoric and Writing 330D (Topic: Pro- and Anti-War Rhetoric) and 330D (Topic 3) may not both be counted.

**Topic 4: Rhetoric and Racism.** Explores theories of rhetoric by examining arguments about group identity, from Athenian discussions of "barbarism" in the fourth century BC to nineteenth-century arguments about citizenship.

**Topic 5: History of Public Argument.** A survey of the practice and theory of argumentation, with particular attention to its civic and political uses and implications.

**Topic 6: Classical to Modern Rhetoric.** Surveys the works of major rhetorical theorists and practitioners in the Western tradition from the ancient Greeks to the present.

**Topic 7: Rhetoric Invented, Revised, Retold.** Survey of figures, movements, and debates in the history of rhetoric and exploration of the rise of revisionist historiography and comparative rhetoric in the twenty-first century. Rhetoric and Writing 330D (Topic: Rhetoric Invented/Revised/Retold) and 330D (Topic 7) may not both be counted.

**Topic 8: Philosophy Versus Rhetoric.** Study of the co-emergence and subsequent split between rhetoric and philosophy in the classical period and their potential reunification in a contemporary context. Rhetoric and Writing 330D (Topic: Philosophy vs Rhetoric) and 330D (Topic 8) may not both be counted.

**Topic 9: Rhetoric in the English Renaissance.** Examination of how the art of rhetoric, developed in ancient times by the Greeks and Romans, was understood and debated during the European Renaissance, particularly in England. Rhetoric and Writing 330D (Topic: Rhetoric in the English Renaissance) and 330D (Topic 9) may not both be counted.

**Topic 10: Arguing with Liberals.** A survey of liberal political theory from the late seventeenth through the twentieth centuries with special attention to theories and practices of public argumentation. Rhetoric and Writing 330D (Topic: Arguing with Liberals) and 330D (Topic 10) may not both be counted.

**Topic 11: Cicero, Rhetoric, and Ancient Rome.** An exploration of Marcus Tullius Cicero's writings on rhetoric, his major political speeches, and his philosophical dialogues in the context of the late Roman republic and the Roman Revolution (ca. 133-40 BCE). Rhetoric

and Writing 330D (Topic: Cicero, Rhet & Ancient Rome) and 330D (Topic 11) may not both be counted.

**Topic 12: Women's Rhetorical Traditions.** Examine how popular rhetorical theories and pedagogies were adapted to fit specific social, cultural, and political contexts and thus shaped the communication practices of girls and women in 19th and early 20th century America. Consider why females were excluded from the rhetorical tradition and the challenges scholars face in writing historical accounts. Rhetoric and Writing 330D (Topic: Women's Rhet Traditions) and 330D (Topic 12) may not both be counted.

**Topic 13: Augustine and Christian Rhetoric.** Study Augustine's writings on language, rhetoric, and epistemology with attention paid to contemporary Roman and Greek philosophical and rhetorical movements, such as skepticism, Platonic idealism, the second sophistic, and the Christian homiletic tradition. Rhetoric and Writing 330D (Topic: Augustine and Christian Rhet) and 330D (Topic 13) may not both be counted.

### RHE 330E. Rhetorical Theory and Analysis.

An advanced examination of rhetorical theories and their applications. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

**Topic 2: Demagoguery.** Examines material produced by rhetors commonly considered demagogues and assesses the scholarly discussions of these individuals.

**Topic 3: Democracy and the Media.** Rhetorical analysis, with particular attention to the effects of technologies and journalistic institutions on public deliberation.

**Topic 4: Modern Rhetorical Criticism.** Use of contemporary critical methods to investigate, interpret, and explain rhetorical acts and artifacts. Rhetoric and Writing 330E (Topic: Modern Rhetorical Criticism) and 330E (Topic 4) may not both be counted.

**Topic 5: Comparative Rhetoric.** Examination of rhetorical concepts and practices in various rhetorical traditions, and how they underline the functions of rhetoric in their different historical and cultural contexts. Rhetoric and Writing 330E (Topic: Comparative Rhetoric) and 330E (Topic 5) may not both be counted.

**Topic 6: Nonargumentative Rhetoric in Zen.** Exploration of unconventional uses of language including contradiction, negation, story, surprise, gesture, and silence are used in Zen training as resources for transformational change. Rhetoric and Writing 330E (Topic: Nonargumentative Rhetoric in Zen) and 330E (Topic 6) may not both be counted.

**Topic 7: Psychology of Writing and Persuasion.**

**Topic 8: Pathos.** Examines the persuasive power of emotion in critical thinking and prudent judgment. Rhetoric and Writing 330E (Topic: Pathos) and 330E (Topic 8) may not both be counted.

**Topic 9: Rhetoric and the Law.** Examine legal rhetoric and how gender, race, class, ability, and nationality constitute the law and subjects before the law. Rhetoric and Writing 330E (Topic: Rhetoric and the Law) and 330E (Topic 9) may not both be counted.

**Topic 10: Peacemaking Rhetoric.** Examine the nature, features, exigences, and functions of peacemaking rhetoric. Rhetoric and Writing 330E (Topic: Peacemaking Rhetoric) and 330E (Topic 10) may not both be counted.

**Topic 11: Film as Rhetoric.** Examine films as rhetorical acts that serve a powerful function in American society. Rhetoric and Writing 330E (Topic: Film as Rhetoric) and 330E (Topic 11) may not both be counted.

**Topic 12: Rhetoric and Narrative.** Examine features, exigences, and functions of different types of rhetorical narratives. Rhetoric and

Writing 330E (Topic: Rhetoric and Narrative) and 330E (Topic 12) may not both be counted.

**Topic 13: Divine Persuasion in Biblical Times and Place.** Same as Jewish Studies 363 (Topic 24) and Middle Eastern Studies 342 (Topic 57). Explore the use of persuasive strategies in an ancient and non-Western culture, that of the Hebrew Bible. Using rhetorical techniques, analyze three types of texts: narratives of interactions between ordinary people and God; interactions between people, God, and authorized prophets; and prayers in prose and poetry. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic: Persuasion Bible Time/Place), 363 (Topic 24), Middle Eastern Studies 342 (Topic: Persuasion Bible Time/Place), 342 (Topic 57), Rhetoric and Writing 330E (Topic: Persuasion Bible Time/Place), 330E (Topic 13). Additional prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

### **RHE 360M. Rhetoric and Writing for Teachers of English.**

Designed for students seeking a secondary school teaching certificate or those in the UTeach-Liberal Arts program. An advanced course that examines theories of writing and writing pedagogy. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

### **RHE 366. Internship in Rhetoric and Writing.**

Research and staff experience working in an appropriate nonprofit, public-, or private-sector entity. Ten to twelve hours a week for one semester. May be repeated once for credit when the internships vary. Offered on the pass/fail basis only. Prerequisite: Upper-division standing, twelve semester hours of coursework in rhetoric and writing, and consent of instructor.

### **RHE 367R. Conference Course in Rhetoric and Writing.**

Supervised work on specific projects in rhetoric and writing. Three conference hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing; one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C; and approval of written application by the supervising instructor.

### **RHE 368C. Writing Center Internship.**

Intensive reading, writing, and discussion in writing center theory and philosophy, tutoring methods, and writing pedagogy, as well as a review of standard American English usage and mechanics; followed by a supervised apprenticeship as a peer consultant in the University Writing Center. Two lecture hours and two apprenticeship hours a week for one semester. Prerequisite: Upper-division standing; one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C; and approval of written application by instructor.

### **RHE 368E. Editing for Publication.**

Advanced instruction in revising and editing for publication. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

**Topic 1: The Book: Prospectus to Proofs.** Designed to make students better writers and more careful editors, the course includes creation of a simulated book from proposal stage to editing of final page proofs.

**Topic 2: Grammar for Writers, Editors, and Teachers.** Examines the grammar of written English by assessing grammatical issues, handbooks, and controversies.

### **RHE 375. Capstone Seminars in Rhetoric.**

Allows the student to integrate the knowledge gained in rhetoric and writing through a major independent project. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and Rhetoric and Writing 321, 330C, 330D, and 330E.

### **RHE 379C. Advanced Topics in Rhetoric and Writing.**

An advanced course focused on specific theories or practices of rhetoric and writing. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and one of the following: English 303C, Rhetoric and Writing 306, 306Q, or Tutorial Course 303C.

### **RHE 679H. Honors Tutorial Course.**

Research and development of a thesis/project topic and proposal followed by the writing and defense of an honors thesis or development and defense of an honors project. The equivalent of three lectures hours a week for two semesters. Prerequisite: For 679HA, upper-division standing, completion of at least six hours of upper-division rhetoric and writing courses, admission to the Rhetoric and Writing Honors Program, and consent of the honors adviser; for 679HB, credit for 679HA.

## **Graduate Courses**

### **RHE 398T. Supervised Teaching in Rhetoric and Writing.**

Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, consent of instructor, and appointment as an assistant instructor in a lower-division rhetoric and writing course.

## **Professional Courses**

# **Risk Management Courses**

## **Risk Management: R M**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **R M 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in Risk Management.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

### **R M 357E. Introduction to Risk Management.**

Same as Urban Studies 321R. Principles of risk management for individuals and organizations, financial aspects of insurance companies and markets, industry structure, managerial aspects of underwriting and pricing, and public policy issues. Three lecture hours a week for one semester. Only one of the following may be counted: Risk Management 357E, Urban Studies 321R, 351 (Topic: Intro to Risk Management), 351 (Topic 6).

### **R M 369K. Managing Employee Risks and Benefits.**

Risk management issues involving financial consequences of life and health contingencies, health care finance, company management, pension planning, economics of industry structure, and public policy issues. Three lecture hours a week for one semester.

### **R M 376. Quantitative Methods in Finance.**

Explores quantitative methods and techniques in optimization and simulation, and their use in financial decision making. Discusses theory and application in portfolio selection, options and other derivative pricing, index tracking, risk measures, volatility estimating. Specific topics will include linear, quadratic, nonlinear, and integer programming; dynamic programming; robust optimization; Monte Carlo methods and variance reduction techniques. Emphasis will be placed on problem solving with advanced computational programming languages. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **R M 377. Property-Liability Risk Management and Planning.**

Analysis of property-liability risks of businesses, risk management tools, risk financing, and insurance contracts for financial planning purposes; investment and underwriting operations, market structures, and insurance regulation. Three lecture hours a week for one semester.

### **R M 179, 379. Independent Research in Risk Management.**

Restricted to students in a business major. Conference course. Only one of the following may be counted: Accounting 179C, 379C, Business, Government, and Society 179, 379, Finance 179C, 379C, International Business 179C, 379C, Legal Environment of Business 179, 379, Management 179C, 379C, Management Information Systems 179, 379, Marketing 179C, 379C, Operations Management 179, 379, Risk Management 179, 379. Prerequisite: Eighteen semester hours of coursework in business and economics; consent of instructor; written approval before the first meeting of the course from the department chair's office, on forms provided for that purpose.

## **Graduate Courses**

### **R M 391. Topics in Decision Analysis.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Decision Analysis.** Descriptive and normative principles of decision making. Additional prerequisite: Admission to the PPA or MPA program or consent of instructor.

**Topic 2: Managing Decisions under Risk.** State-of-the-art methods and tools to analyze risky decisions and design optimal strategies. Practical knowledge and practice are emphasized.

**Topic 3: Research Issues in Decision Making.** Talks by students and faculty members with research interests in decision making, and group discussion of the talks and of students' decision-related research. Additional prerequisite: Admission to the doctoral program in the Department of Information, Risk, and Operations Management.

**Topic 4: Behavioral Decision Theory.** The psychology of decision making: how and why our judgments are more fallible than we ordinarily suppose, and the extent to which predictive judgment can be improved through use of normative strategies that tell us how we should make judgments and decisions.

### **R M 192, 292, 392. Topics in Quantitative Finance.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Modeling and Optimization in Finance.**

**Topic 2: Statistics for Finance.**

**Topic 3: Financial Engineering.**

**Topic 4: Mathematical Finance.**

**Topic 5: Computational Finance.**

### **R M 194, 294, 394. Topics in Business Analytics.**

Restricted to students admitted to the Master of Science in Information, Risk, and Operations Management program. Selected topics in business analytics. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **R M 195, 295, 395. Seminar: Risk Management.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Corporate Risk Management.** Analysis of risk management and security needs of businesses and individuals; related insurance coverages and other tools available to deal with risk.

**Topic 2: Financial and Economic Aspects of Risk Management.**

Analysis of risk management techniques and insurance company operations. Similarities between insurance pricing techniques and risk management methodology.

**Topic 3: Risk Management and Finance.** Examination of theories underlying risk management techniques for business and insurance mechanisms; theoretical analysis of problems and practices in risk management.

**Topic 5: Managing Environmental Risk.**

**Topic 6: Risk Analysis and Management.**

**Topic 7: Managing International Risk.** The global aspects of risk management; basic risk and crisis management principles pertinent to multinational firms; financially, legally, and culturally multinational marketplaces such as reinsurance markets, captive offshore insurance.

**Topic 8: Managing Employee Risks and Benefits.** Corporate planning and public policy issues associated with employee benefits.

## **Professional Courses**

# **Russian Courses**

## **Russian: RUS**

### **Lower-Division Courses**

#### **RUS 601C. Intensive Russian I.**

Not open to native or heritage speakers of Russian. Emphasis on developing oral proficiency in Russian using intensive methods of instruction. Six lecture hours a week for one semester. May not be counted by students with credit for Russian 406, 506, 407, 507.

#### **RUS 406, 506. First-Year Russian I.**

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted: Russian 601C, 406, 506.

#### **RUS 407, 507. First-Year Russian II.**

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted: Russian 601C, 407, 507. Prerequisite: Russian 406 or 506.

#### **RUS 611C. Intensive Russian II.**

Not open to native or heritage speakers of Russian. Continuing intensive development of proficiency in Russian, with a focus on speaking and the reading of authentic texts. Six lecture hours a week for one semester. Only one of the following may be counted: Russian 611C, 312K, 412K. Only one of the following may be counted: Russian 611C, 312L, 412L. Prerequisite: Russian 601C or 507.

### **RUS 312K, 412K. Second-Year Russian I.**

Listening, speaking, reading, and writing at the second-year level. For every hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Russian 611C, 312K, 412K. Prerequisite: Russian 407.

### **RUS 312L, 412L. Second-Year Russian II.**

Listening, speaking, reading, and writing at the advanced, second-year level. For 312L, three lecture hours a week for one semester; for 412L, four lecture hours a week for one semester. Only one of the following may be counted: Russian 611C, 312L, 412L. Prerequisite: Russian 312K or 412K.

### **RUS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Russian.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **RUS 322C. Intermediate Russian Through Conversation.**

Development of the basic skills of listening, speaking, reading, and writing, with special emphasis on oral communication. Three lecture hours a week for one semester. Russian 322C and 324 may not both be counted. Russian 322C and 325 may not both be counted. Prerequisite: Russian 611C or 312K, 412K.

### **RUS 322W. Intermediate Russian Through Writing.**

Development of the basic skills of listening, speaking, reading, and writing, with a special emphasis on written expression. Three lecture hours a week for one semester. Russian 322W and 324 may not both be counted. Russian 322W and 325 may not both be counted. Prerequisite: Russian 611C or 312K, 412K.

### **RUS 324. Third-Year Russian I.**

Oral expression, reading, and composition. Three lecture hours a week for one semester. Russian 322C and 324 may not both be counted. Russian 322W and 324 may not both be counted. Prerequisite: Russian 611C or 412L.

### **RUS 325. Third-Year Russian II.**

Oral expression, reading, and composition. Three lecture hours a week for one semester. Russian 322C and 325 may not both be counted. Russian 322W and 325 may not both be counted. Prerequisite: Russian 324.

### **RUS 326. Topics in Advanced Russian.**

Designed to enhance the student's skills in a variety of functional areas. Topics may include advanced oral communication, stylistics, Russian for business, literary translation of legal and business documents, scientific and technical translation. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Russian 325, or Russian 322C and 322W.

**Topic 1: Vysotsky: His Life and Works.** An overview of the songs, films, and stage performances of Russia's premiere singer/song writer, Vladimir Vysotsky. Focus on his use of language and the cultural context of the times. Russian 326 (Topic: Vysotsky: His Life and Works) and 326 (Topic 1) may not both be counted. Additional prerequisite: Upper-division standing and Russian 325.

**Topic 2: Russia at the Movies: 1936-1979.** Development of listening, speaking, and reading in Russian, while addressing stylistic shifts in the spoken language. Material will be drawn from a series of popular films from early to late Soviet cinema. Russian 326 (Topic: Russia at the Movies) and 326 (Topic 2) may not both be counted.

**Topic 3: Russian Media, Business, and Public Policy.** Advanced writing and oral communication skills in the Russian language based on both tradition approach to grammatical and lexical studies of the language and innovative use of current Russian media, including newspaper and magazine articles, news programs, DVD clips, and short films. Development of ability to master both formal and informal knowledge of contemporary Russian and to discuss the most important issues of the Russian society. Russian 326 (Topic: Advanced Russian Composition and Conversation I) and 326 (Topic 3) may not both be counted.

**Topic 4: Russia at the Movies since 1980.** Development of listening, speaking, and reading in Russian, while addressing stylistic shifts in the spoken language. Material will be drawn from a series of popular films from the late Soviet period to contemporary Russian cinema. Only one of the following may be counted: Russian 326 (Topic 4), 330 (Topic: Contemporary Russian Cinema), 330 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic 11).

**Topic 5: The Russian Short Story.** Introduction to short works of Russian literature by Pushkin, Gogol, Turgenev, Leskov, Dostoevsky, Tolstoy, Chekhov, Babel, Bulgakov, Solzhenitsyn, Tolstaya, Pelevin, and others. All readings and discussions are in Russian. Only one of the following may be counted: Russian 326 (Topic 5), 329 (Topic: The Russian Short Story), and 329 (Topic 1).

### **RUS 326C. Russian through Drama.**

Focus on improving pronunciation, intonation, and public speaking skills in order to develop advanced proficiency in Russian. Explore an introduction to the life and works of Russian writer Anton Chekhov, and consider Chekhov's theater, the Stanislavsky method of acting, and the social context in which they developed. Three lecture hours a week for one semester. Russian 326 (Topic: Russian through Drama) and 326C may not both be counted. Prerequisite: Russian 325, or Russian 322C and 322W.

### **RUS 326D. Russian through Global Debate.**

Focus on developing an advanced level of spoken proficiency in Russian through the construction and delivery of arguments in a debate format. Explore the specialized lexicon and rhetoric of argumentation and debate discourse, while working within the subject frames of contemporary global issues: politics, economics, environment, social issues, and human rights. Three lecture hours a week for one semester. Russian 326 (Topic: Russian thru Global Debate) and 326D may not both be counted. Prerequisite: Russian 325, or Russian 322C and 322W.

### **RUS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Russian.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Slavic and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **RUS 130D. Russian across Disciplines.**

Read and discuss Russian language materials related to the subject matter of another designated course. One lecture hour a week for one

semester. May be repeated for credit. Prerequisite: Russian 611C or 412L and consent of instructor.

### **RUS 365T. The Art of Russian to English Translation.**

Introduction to the art of translation from Russian to English and English to Russian. The focus is on translation of a variety of fiction and non-fiction texts, but instruction and practice in oral interpretation will also be available. Exposure to the variety of contemporary opportunities in the professional field of translation. Three lecture hours a week for one semester. Russian 365T and 369 (Topic: The Art of Russian-English Translation) may not both be counted. Prerequisite: Russian 325.

### **RUS 379. Conference Course in Russian Language or Literature.**

Conference course. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in Russian or consent of instructor and the chair of the department.

### **RUS 679H. Honors Tutorial Course.**

Supervised individual research on a literary or linguistic problem, which culminates in an honors paper of some length. Conference course for two semesters. Must be taken for special honors in addition to the major requirement. Prerequisite: For 679HA, upper-division standing, a University grade point average of at least 3.00, and a grade point average in Russian of at least 3.50; for 679HB, Russian 679HA.

## **Graduate Courses**

### **RUS 380E. Topics in Advanced Russian.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Cultural Geography of Russia.** Culture, history, and traditions of diverse people and ethnic groups of Russia from a geographical perspective. Only one of the following may be counted: Russian 380E (Topic 1), Russian, East European, and Eurasian Studies 385 (Topic: Cultural Geography of Russia), 385 (Topic 7).

**Topic 2: Russian through Drama.** Focus on improving pronunciation, intonation, and public speaking skills in order to develop advanced proficiency in Russian. Explore an introduction to the life and works of Russian writer Anton Chekhov, and consider Chekhov's theater, the Stanislavsky method of acting, and the social context in which they developed. Russian 380E (Topic: Russian through Drama) and 380E (Topic 2) may not both be counted.

**Topic 3: Russian through Global Debate.** Focus on developing an advanced level of spoken proficiency in Russian through the construction and delivery of arguments in a debate format. Explore the specialized lexicon and rhetoric of argumentation and debate discourse, while working within the subject frames of contemporary global issues: politics, economics, environment, social issues, and human rights. Russian 380E (Topic: Russian thru Global Debate) and 380E (Topic 3) may not both be counted.

**Topic 4: Vysotsky: His Life and Works.** Explore the songs, films, and stage performances of Russia's premiere singer-songwriter, Vladimir Vysotsky. Focus on his use of language and the cultural context of the times. Russian 380E (Topic: Vysotsky: Life and Works) and 380E (Topic 4) may not both be counted.

**Topic 5: Russian Media, Business, and Public Policy.** Explore advanced writing and oral communication skills in the Russian language based on both a traditional approach to grammatical and lexical studies of the language and innovative use of current Russian media, including newspaper and magazine articles, news programs, DVD clips, and short films. Build both formal and informal knowledge of contemporary Russian and discuss the most important issues of

Russian society. Russian 380E (Topic: Rus Media/Business/Policy) and 380E (Topic 5) may not both be counted.

### **RUS 385. Topics in Russian Linguistics.**

Sample topics include Old Russian and the history of the Russian literary language, as well as more specialized topics in synchronic, historical, or applied perspective. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **RUS 392. Studies in Slavic Languages and Literatures other than Russian.**

Topics include Bulgarian, Macedonian, Serbian/Croatian, Slovenian, Czech, Sorbian, Polish, Slovak, Ukrainian, and Belorussian. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in the Department of Slavic and Eurasian Studies, or graduate standing and consent of instructor.

### **RUS 395. Conference Course.**

Study of individual problems in Slavic languages. Conference course. May be repeated for credit. Prerequisite: Graduate standing.

### **RUS 397P. Topics in Applied Linguistics and Pedagogy.**

Study of topics in applied linguistics related to the teaching of Russian and other Slavic languages. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **RUS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in the Department of Slavic and Eurasian Studies and consent of the graduate adviser; for 698B, Russian 698A.

### **RUS 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in the Department of Slavic and Eurasian Studies and consent of the graduate adviser.

### **RUS 398T. Supervised Teaching in Russian.**

Principles and methods of teaching Russian. Analysis of relevant foreign language teaching theories and methodologies, curriculum and curricular materials development for university and secondary school teachers of Russian. Three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant.

## **Professional Courses**

# **Russian, East European, and Eurasian Studies Courses**

## **Russian, East European, and Eurasian Studies: REE**

### **Lower-Division Courses**

#### **REE 301. Introduction to Russian, East European, and Eurasian Studies.**

An introduction to the former Soviet Union and Eastern Europe through each of the major disciplines represented in the program: language, literature, anthropology, geography, history, government, sociology, and economics. Three lecture hours a week for one semester. Only one of the following may be counted: History 306N (Topic 4), Russian, East

European, and Eurasian Studies 301, Slavic 301 (Topic 2). Only one of the following may be counted: Government 314 (Topic 4), Russian, East European, and Eurasian Studies 301, Slavic 301 (Topic 2). Only one of the following may be counted: Russian, East European, and Eurasian Studies 301, Slavic 301 (Topic: Introduction to Russian, East European, and Eurasian Studies), 301 (Topic 2).

### **REE 301L. Introduction to Russian Literature.**

Introduction to Russian literature of the modern period, from the late eighteenth century to the present. Explores a variety of genres, from fairy tales to the works of Pushkin, Gogol, Dostoevsky, Tolstoy, Chekhov, Bulgakov, and Pelevin. All reading and instruction is in English. Three lecture hours a week for one semester.

### **REE 302. Topics in Russian, East European, and Eurasian Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: The Vampire in Slavic Cultures.** Same as Comparative Literature 305 (Topic 2) and European Studies 307 (Topic 1). Examines the vampire in the cultures of Russia and Eastern Europe, including manifestations in literature, religion, art, film, and common practices from its origins to present. Only one of the following may be counted: Comparative Literature 305 (Topic: The Vampire in Slavic Cultures), 305 (Topic 2), European Studies 307 (Topic: The Vampire in Slavic Cultures), 307 (Topic 1), Russian, East European, and Eurasian Studies 302 (Topic: The Vampire in Slavic Cultures), 302 (Topic 1), Slavic 301 (Topic: The Vampire in Slavic Cultures), 301 (Topic 1).

**Topic 2: Prague, Magic, and the Struggle for Power.** Same as History 306N (Topic 14). Examines historical texts from four different magical traditions to find the truth behind the fiction and the historical events that sometimes permitted and sometimes persecuted the religions, philosophies, and sciences that some call magic. Only one of the following may be counted: Czech 301K (Topic: Magic and Power in Prague: The Struggle for Power), 301K (Topic 2), History 306N (Topic: Magic and Power in Prague: The Struggle for Power), 306N (Topic 14), Religious Studies 306 (Topic: Magic and Power in Prague: The Struggle for Power), Russian, East European, and Eurasian Studies 302 (Topic: Magic and Power in Prague: The Struggle of Power), 302 (Topic 2).

**Topic 3: Introduction To Czech History and Culture: Puppets, Pubs, And Polyglots.** Same as European Studies 307 (Topic 2). Survey of Czech history and culture from the middle ages to the present day. Subjects include the culture of daily life, literature, history, philosophy, and the arts. Only one of the following may be counted: Czech 301K (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 301K (Topic 3), European Studies 307 (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 307 (Topic 2), Russian, East European, and Eurasian Studies 302 (Topic: Puppets, Pubs And Polyglots: Introduction To Czech History and Culture), 302 (Topic 3).

### **REE 302C. Cuisine and Culture of Central and Eastern Europe.**

Same as European Studies 307 (Topic 6). An in-depth survey of the culinary traditions, history, and practices of Central and Eastern Europe. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 307 (Topic: Cuisine and Culture of Central and Eastern Europe), 307 (Topic 6), Russian, East European, and Eurasian Studies 302 (Topic: Cuisine and Culture of Central and Eastern Europe), 302C.

### **REE 302D. Russian Icons and Propaganda.**

Same as Religious Studies 315K. Three lecture hours a week for one semester. Only one of the following may be counted: Religious Studies 315 (Topic: Russian Icons and Propaganda), 315K, Russian, East European, and Eurasian Studies 302 (Topic: Russian Icons and Propaganda), 302D.

### **REE 302E. War in Comics and Photography: Southeast Europe.**

Same as European Studies 307 (Topic 9). Examine different ways to show and tell stories of armed conflict and state-sponsored violence, drawing on a variety of modern media forms - such as comics, cinema, novels, and photography - as well as contemporary digital platforms including social media. Focus on the 1990s conflicts in the former Yugoslavia (Bosnia, Croatia, and Serbia). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 307 (Topic: War in Comics/Photo: SE Eur), 307 (Topic 9), Russian, East European, and Eurasian Studies 302 (Topic: War in Comics/Photo: SE Eur), 302E, Women's and Gender Studies 301 (Topic: War in Comics/Photo: SE Eur).

### **REE 302F. Dissent in Twentieth-Century Ukraine.**

Same as Comparative Literature 305C and European Studies 307 (Topic 10). Survey Ukrainian authors from the 1920s to the present, examining writings from "Executed Renaissance," underground literature, and postmodernism. Focus specifically on works that challenge the paradigm of socialist realism by discussing forbidden subjects (famine, religion, Gulag) or accentuating themes that are not considered "major" (personal life). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 305 (Topic: Dissent 20th-Cent Ukraine), 305C, European Studies 307 (Topic: Dissent 20th-Cent Ukraine), 307 (Topic 10), Russian, East European, and Eurasian Studies 302 (Topic: Dissent 20th-Cent Ukraine), 302F.

### **REE 302G. The Soviet Hero in Literature and Culture.**

Same as Comparative Literature 305S. Consider Soviet Culture by examining "heroes" from both real life and works of literature, cinema, and folklore. Explore the period from the Russian 19th century throughout the Soviet Era. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 305 (Topic: Soviet Hero in Lit/Culture), 305S, Russian, East European, and Eurasian Studies 302 (Topic: Soviet Hero in Lit/Culture), 302G.

### **REE 318Q. Supervised Research.**

Individual instruction.

### **REE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Russian, East European, and Eurasian Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Russian, East European, and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **REE 325. Topics in Language, Literature, and Culture.**

Three lecture hours a week for one semester. Fulfills the basic Russian, East European, and Eurasian studies requirement in language, literature, and culture. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 9: The Russian Novel.** Same as Comparative Literature 323 (Topic 29) and Core Texts and Ideas 347. A survey of classic Russian authors as well as experimental works from the nineteenth through the twenty-first century. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 29), Core Texts and Ideas 345 (Topic 6), 347, English 322 (Topic 37), European Studies 347 (Topic 22), Russian 356 (Topic 1), Russian, East European, and Eurasian Studies 325 (Topic 9). Additional prerequisite: Upper-division standing.

**Topic 10: The Major Works of Dostoevsky.** Same as Comparative Literature 323 (Topic 30) and Core Texts and Ideas 346. Explores the dilemmas of homicide, suicide, patricide, and redemption in the novels of Fyodor Dostoevsky. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 30), Core Texts and Ideas 345 (Topic 5), 346, European Studies 347 (Topic 10), Russian 360 (Topic 1), Russian, East European and Eurasian Studies 325 (Topic 10). Additional prerequisite: Upper-division standing.

**Topic 11: Contemporary Russian Cinema.** Uses contemporary Russian film both as a means of exploring the confusion that resulted from the demise of the Soviet Union in 1991 and the search for a new sense of identity in Russia throughout the 1990s and early 2000s. Only one of the following may be counted: Russian 326 (Topic 4), 330 (Topic: Contemporary Russian Cinema), 330 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic 11). Additional prerequisite: Upper-division standing.

**Topic 13: Medieval Russian Literature and Culture.** Medieval and early modern Russian literature and culture, including literary texts from Kievan and Muscovite Russia. Only one of the following may be counted: Comparative Literature 323 (Topic: The Icon and the Sword: An Introduction to Old Russian Literature and Culture), Russian, East European, and Eurasian Studies 325 (Topic: The Icon and the Sword: An Introduction to Old Russian Literature and Culture), 325 (Topic 13), Russian 330 (Topic: The Icon and the Sword: An Introduction to Old Russian Literature and Culture), 330 (Topic 6). Additional prerequisite: Upper-division standing.

**Topic 16: The Major Works of Tolstoy.** Same as Comparative Literature 323 (Topic 27). Explores Russian writer Lev Nikolaevich Tolstoy, particularly his progression from idealizing family life and the Russian state to renouncing sexual love and national allegiances. Only one of the following may be counted: Comparative Literature 323 (Topic: The Major Works of Tolstoy), 323 (Topic 27), Russian 360 (Topic: Majors Works of Tolstoy), 360 (Topic 2), Russian, East European, and Eurasian Studies 325 (Topic: The Major Works of Tolstoy), 325 (Topic 16). Additional prerequisite: Upper-division standing.

**Topic 18: War and Revolution in Russian Literature and Culture.** Same as Comparative Literature 323 (Topic 31) and Core Texts and Ideas 348. Examines Russian narratives of war and revolution as represented in fiction, cinema, and journalism. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 31), Core Texts and Ideas 345 (Topic 8), 348, Russian 356 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic 18). Additional prerequisite: Upper-division standing.

**Topic 19: Russian Youth Culture, Late Soviet to Present.** Examines the history and cultural products (films, music, writings) of Russia's youth, and their impact on contemporary society and politics. Only one of the following may be counted: Russian, East European, and Eurasian Studies 325 (Topic: Russian Youth Culture, Gorbachev to Present), 325 (Topic 19), Russian 330 (Topic: Russian Youth Culture, Gorbachev to Present), 330 (Topic 8). Additional prerequisite: Upper-division standing.

**Topic 22: Russian Myths and Folktales.** Same as Anthropology 322T and Comparative Literature 323 (Topic 34). Examination of the Russian folktale, its roots in ancient, pre-Christian Slavic religious

tradition, its connections with other forms of folklore such as myth and legend, and its transformation in modern Russian literature. Subjects include the continuing influence of folklore explored through various aspects of Russian culture, including literature, music, ballet, film, and popular culture. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322T, 325L (Topic 12), Comparative Literature 323 (Topic 34), Russian 330 (Topic 9), Russian, East European and Eurasian Studies 325 (Topic 22). Additional prerequisite: Upper-division standing.

**Topic 24: Rebels and Revolutionaries in Russian History and Literature.** Same as Comparative Literature 323 (Topic 20) and History 361E. Study of fictional and real rebels and revolutionaries across almost a century of Russian literature. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 20), History 361E, 362G (Topic 15), Russian 356 (Topic 4), Russian, East European, and Eurasian Studies 325 (Topic 24). Additional prerequisite: Upper-division standing.

**Topic 25: Literature and Art of Russian Modernism and Avant-Garde.** Focusing on literary and artistic expressions of Russian modernist and avant-garde esthetics, this course explores various responses to Russian cultural modernity between 1890s, when Russian Symbolists first published their works, and the Party decree of 1932 that established the Writers' Union and outlawed all other literary organizations. Only one of the following may be counted: Russian 330 (Topic: Literature and Art of Russian Modernism and Avant-Garde), 330 (Topic 10), Russian, East European and Eurasian Studies 325 (Topic: Literature and Art of Russian Modernism and Avant-Garde), 325 (Topic 25). Additional prerequisite: Upper-division standing.

**Topic 29: Bulgakov's Master and Margarita.** Same as Comparative Literature 323 (Topic 8). Explores the novel in the context of other literary works by Bulgakov and its varied sources in world literature, music, and the visual arts. Only one of the following may be counted: Comparative Literature 323 (Topic: Bulgakov's Master and Margarita), 323 (Topic 8), Russian 360 (Topic: Bulgakov's Master and Margarita), 360 (Topic 3), Russian, East European, and Eurasian Studies 325 (Topic: Bulgakov's Master and Margarita), 325 (Topic 29). Additional prerequisite: Upper-division standing.

**Topic 31: Chechnya: the Politics, Power, and People.** History, culture, religions, and recent upheaval of the region of the northern Caucasus called Chechnya. Only one of the following may be counted: Russian, East European, and Eurasian Studies 325 (Topic 31), 345 (Topic: Chechnya: the Politics, Power, and People), 345 (Topic 5), Slavic 324 (Topic: Chechnya: the Politics, Power, and People), 324 (Topic 3). Additional prerequisite: Upper-division standing.

**Topic 32: Bad Language: Race, Class, and Gender.** Same as Comparative Literature 323 (Topic 52), Mexican American Studies 363R, and Women's and Gender Studies 340 (Topic 74). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Bad Language: Race, Class, and Gender), Comparative Literature 323 (Topic: Bad Language: Race, Class, and Gender), 323 (Topic 52), Linguistics 350 (Topic: Bad Language: Race, Class, and Gender), Mexican American Studies 363R, 374 (Topic: Bad Language: Race, Class, and Gender), Russian 369 (Topic: Bad Language: Race, Class, and Gender), Russian, East European, and Eurasian Studies 325 (Topic: Bad Language: Race, Class, and Gender), 325 (Topic 32), Women's and Gender Studies 340 (Topic: Bad Language: Race, Class, and Gender), 340 (Topic 74). Additional prerequisite: Upper-division standing.

**Topic 34: Russian Cinema From Potemkin to Putin.** Same as Comparative Literature 323 (Topic 54). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Russian Cinema From Potemkin to Putin), 323 (Topic 54), Russian, East European, and Eurasian Studies 325 (Topic:

Russian Cinema From Potemkin to Putin), 325 (Topic 34). Additional prerequisite: Upper division standing.

**Topic 35: Russian Fairytales.** Same as Comparative Literature 323 (Topic 55). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Russian Fairytales), 323 (Topic 55), Slavic 324 (Topic: Russian Fairytales), Russian, East European, and Eurasian Studies 325 (Topic: Russian Fairytales), 325 (Topic 35). Additional prerequisite: Upper-division standing.

**Topic 36: Women and Resistance in Contemporary Eastern Europe.** Same as European Studies 347 (Topic 44) and Women's and Gender Studies 340 (Topic 60). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Women and Resistance in Contemporary Eastern Europe), 347 (Topic 44), Russian, East European, and Eurasian Studies 325 (Topic: Women and Resistance in Contemporary Eastern Europe), 325 (Topic 36), Women's and Gender Studies 340 (Topic: Women and Resistance in Contemporary Eastern Europe), 340 (Topic 60). Additional prerequisite: Upper-division standing.

**Topic 38: Punks and Divas in Southeast Europe.** Same as European Studies 347 (Topic 47) and Women's and Gender Studies 345D. Examine popular music and its role in political struggle and collective identity formation in the Balkans. Analyze music genres in this region in the context of the historical changes it underwent in the twentieth and twenty-first centuries, including the fall of Communism and -- in the case of former Yugoslavia -- the formation of seven new nation-states through a series of bloody and brutal wars. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Punks/Divas in SE Europe), 347 (Topic 47), Russian, East European, and Eurasian Studies 325 (Topic: Punks/Divas in SE Europe), 325 (Topic 38), Women's and Gender Studies 345 (Topic: Punks/Divas in SE Europe), 345D. Additional prerequisite: Upper-division standing.

**Topic 40: Russian and Mexican Men in Popular Culture.** Same as Comparative Literature 323 (Topic 58) and Mexican American Studies 337D. Study representations of masculinity in products of Mexican and Russian popular culture at the end of the twentieth and the beginning of the twenty-first centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Russian/Mexican Men in Pop Cul), 323 (Topic 58), Mexican American Studies 337D, 374 (Topic: Russian/Mexican Men in Pop Cul), Russian, East European, and Eurasian Studies 325 (Topic: Russian/Mexican Men in Pop Cul), 325 (Topic 40), Women's and Gender Studies 340 (Topic: Russian/Mexican Men in Pop Cul). Additional prerequisite: Upper-division standing.

**Topic 41: Russian Orthodox Religion and Culture.** Same as History 325Q and Religious Studies 357W. Examine the role and force of the Orthodox Church in Russian history, from the Christianization of the pagan Slavs in the 10th century, through the Russian Revolution into the Soviet era, and up to the present, while considering the prescriptive tenets of the Orthodox faith (religion) alongside descriptive experiences of life within and under Russian Orthodoxy (religiosity). Three lecture hours a week for one semester. Only one of the following may be counted: History 325Q, 366N (Topic: Rus Orthodox Religion/Cultr), Religious Studies 357 (Topic: Rus Orthodox Religion/Cultr), 357W, Russian, East European and Eurasian Studies 325 (Topic: Rus Orthodox Religion/Cultr), 325 (Topic 41). Additional prerequisite: Upper-division standing.

**Topic 42: Youth and Violence in the Middle East and Eurasia.** Same as Comparative Literature 323 (Topic 65) and Middle Eastern Studies 342 (Topic 64). Only one of the following may be counted: Comparative Literature 323 (Topic: Youth/Violence Mid East/Eur), 323 (Topic 65), Middle Eastern Languages and Cultures 321 (Topic: Youth/Violence Mid East/Eur), Middle Eastern Studies 342 (Topic: Youth/Violence Mid East/Eur), 342 (Topic 64), Russian, East European, and Eurasian

Studies 325 (Topic: Youth/Violence Mid East/Eur), 325 (Topic 42). Additional prerequisite: Upper-division standing.

**Topic 43: Traveling Culture.** Same as Anthropology 326I. Examine mobility as a point of inquiry into questions of identity, community, belonging, place and landscape, art, representation, cultural difference, experience, and history. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic 14), 326I, Russian, East European, Eurasian Studies 325 (Topic 43). Additional prerequisite: Upper-division standing.

### **REE 325C. Russian Food Ways.**

Same as History 343Q. Three lecture hours a week for one semester. Only one of the following may be counted: History 343Q, 362G (Topic: Russian Food Ways), Russian, East European, and Eurasian Studies 325 (Topic: Russian Food Ways), 325C. Prerequisite: Upper-division standing.

### **REE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Russian, East European, and Eurasian Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Russian, East European, and Eurasian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **REE 335. Topics in History, Economics, and Government.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 2: Governments and Politics of Eastern Europe.** Same as Government 324J and European Studies 348 (Topic 1: Governments and Politics of Eastern Europe). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic 1), Government 324J, Russian, East European, and Eurasian Studies 335 (Topic 2). Additional prerequisite: Six semester hours of lower-division coursework in government.

**Topic 3: Governments and Politics of Russia.** Issues of nationalism and state-building facing Russia and its neighbors. Evaluation of the post-Soviet experience from the perspectives of both domestic and foreign policy. Government 336M and Russian, East European, and Eurasian Studies 335 (Topic 3) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

**Topic 5: History of Russia to 1917.** Same as History 343L. Survey of Russian history from seventeenth-century Muscovy to the fall of the Romanovs in 1917. Prerequisite: Upper-division standing.

**Topic 6: History of Russia since 1917.** Same as History 343M. A survey of Russian history from the revolution of 1917 to the collapse of the Soviet Union. Prerequisite: Upper-division standing.

**Topic 10: The Military in Politics.** Same as Government 365G and Latin American Studies 337M (Topic 9). Three lecture hours a week for one semester. Only one of the following may be counted: Government 365G, 365N (Topic 3); Latin American Studies 337M (Topic 9); Russian, East European, and Eurasian Studies 335 (Topic 10). Additional prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**Topic 11: Germany in the Twentieth Century.** Same as History 337N and Liberal Arts Honors 352C. Survey of German political and military institutions, economic development, culture, and society. Three lecture hours a week for one semester. Only one of the following may be counted: History 337N, Liberal Arts Honors 350 (Topic: Germany in the 20th Century), 352C, Russian, East European, and Eurasian Studies 335 (Topic 11). Additional prerequisite: Upper-division standing and a grade point average of at least 3.5.

**Topic 12: Stalinist Russia.** Same as History 350L (Topic 41). History 350L (Topic 41) and Russian, East European, and Eurasian Studies 335 (Topic 12) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 13: Russian Economic Development since 1917.** The growth of the planned economy in industry, agriculture, and labor. Economics 346K and Russian, East European, and Eurasian Studies 335 (Topic 13) may not both be counted. Prerequisite: Economics 304K and 304L with a grade of at least C in each, and six additional semester hours of coursework in social science; or consent of instructor.

**Topic 14: Political Economy of International Crises.** Examines several dimensions of the ongoing crises in the world economic order and the interrelationships among them. Problem areas covered are neoliberalism, international money, debt, famine, immigration, and energy shocks. Economics 357L and Russian, East European, and Eurasian Studies 335 (Topic 14) may not both be counted. Prerequisite: Economics 304K and 304L with a grade of at least C in each, and six additional semester hours of coursework in social science.

**Topic 16: Eastern Europe in the Twentieth Century.** Same as European Studies 346 (Topic 16) and History 362Q. Examines the major political, social, and cultural events that shaped Eastern European society in the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 16), History 362G (Topic 7), 362Q, Russian, East European, and Eurasian Studies 335 (Topic 16). Additional prerequisite: Upper-division standing.

**Topic 17: Introduction to the Holocaust.** Same as European Studies 346 (Topic 17), History 362D, and Jewish Studies 364 (Topic 6). Examines the mass killing of Jews and other victims in the context of Nazi Germany's quest for race and space during World War II. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Introduction to the Holocaust), 346 (Topic 17), History 362D, 362G (Topic: Introduction to the Holocaust), 362G (Topic 3), Jewish Studies 364 (Topic: Introduction to the Holocaust), 364 (Topic 6), Russian, East European, and Eurasian Studies 335 (Topic: Introduction to the Holocaust), 335 (Topic 17). Additional prerequisite: Upper-division standing.

**Topic 18: Southeast Europe in the Twentieth Century.** Same as European Studies 346 (Topic 18), History 362S, and Jewish Studies 364 (Topic 8). Explores the key events and developments of Southeastern Europe, the region commonly referred to as the Balkans, in the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 18), History 362G (Topic 9), 362S, Jewish Studies 364 (Topic 8), Russian, East European, and Eurasian Studies 335 (Topic 18). Additional prerequisite: Upper-division standing.

**Topic 19: World War II in Eastern Europe.** Same as European Studies 346 (Topic 12), History 350L (Topic 79), and Jewish Studies 364 (Topic 11). Examines the war in Eastern Europe with a particular emphasis on occupation, collaboration, and resistance; the Holocaust; and the connection between ethnic cleansing, population transfer, and the establishment of communism in postwar Eastern Europe. Only one of the following may be counted: European Studies 346 (Topic: World War II in Eastern Europe), 346 (Topic 12), History 350L (Topic: World War II in Eastern Europe), History 350L (Topic 79), Jewish Studies 364 (Topic: World War II in Eastern Europe), 364 (Topic 11), Russian, East European, and Eurasian Studies 335 (Topic: World War II in Eastern Europe), 335 (Topic 19).

**Topic 20: German Nationalisms.** Same as European Studies 346 (Topic 22), German, Scandinavian, and Dutch Studies 361K, and Government 368T. History of diverse views and movements regarding German national identity within their respective contexts, 1800-present. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic 22), German,

Scandinavian, and Dutch Studies 361K, Government 365N (Topic 6), 365N (Topic 19), 368T, Russian, East European and Eurasian Studies 335 (Topic 20). Additional prerequisite: Upper-division standing.

**Topic 21: Causes of War.** Same as Government 360G. Three lecture hours a week for one semester. Only one of the following may be counted: Government 360G, 360N (Topic 2), Russian, East European, and Eurasian Studies 335 (Topic: Causes of War), 335 (Topic 21).

**Topic 23: Jews of Eastern Europe.** Same as History 362R, Jewish Studies 364 (Topic 7), and Religious Studies 357E. Explores the history and culture of Jews in Eastern Europe. Three lecture hours a week for one semester. Only one of the following may be counted: History 362G (Topic 8), 362R, Jewish Studies 364 (Topic 7), Russian, East European, and Eurasian Studies 335 (Topic 23), Religious Studies 357 (Topic 13), 357E. Additional prerequisite: Upper-division standing.

**Topic 24: Political Warfare and Propaganda.** Same as Government 364V. Examine the phenomenon of political warfare in a contemporary global context, focusing on Russia and Eastern Europe. Explore the evolution of techniques of political warfare, including psychological warfare and propaganda. Three lecture hours a week for one semester. Only one of the following may be counted: Government 360N (Topic: Political Warfare/Propaganda), 364V, Russian, East European and Eurasian Studies 335 (Topic: Political Warfare/Propaganda), 335 (Topic 24). Additional prerequisite: Six semester hours of lower-division coursework in government.

**Topic 25: Revolutionary Russia.** Same as History 343R. An in depth examination of the political, social, economic, and cultural dynamics at work in early twentieth-century Russia. Three lecture hours a week for one semester. Only one of the following may be counted: History 343R, 350L (Topic: Revolutionary Russia), Russian, East European, and Eurasian Studies 335 (Topic: Revolutionary Russia), 335 (Topic 25). Additional prerequisite: Upper-division standing.

**Topic 26: Criminal Punishment in Russia.** Examine the theories of criminal responsibility from a legal perspective. Explore the application of criminal punishment in Russia in the Imperial, Soviet and modern eras. Russian, East European, and Eurasian Studies 335 (Topic: Criminal Punishment in Russia) and 335 (Topic 26) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 28: Russian and Soviet Film: Uses of History.** Same as History 350L (Topic 93). Explore twentieth-century Russian history through its representation in film. Only one of the following may be counted: History 350L (Topic: Rus/Soviet Film: Uses of Hist), 350L (Topic 93), Russian, East European, and Eurasian Studies 335 (Topic: Rus/Soviet Film: Uses of Hist), 335 (Topic 28). Additional prerequisite: Upper-division standing.

**Topic 31: Security and Policy in Eastern Europe and Russia.** Same as European Studies 348 (Topic 13) and Government 362U. Examine key contemporary security issues and policy dilemmas through the perspective of post-communist Eastern European countries in the context of European Union (EU) enlargement waves, and in the framework of their membership in supranational organizations. Consider the transformation of regional states' national security strategies, threat perception, and priorities transitioning from former Warsaw pact to full-fledged EU and NATO membership in shaping their respective national security priorities. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 348 (Topic 13), Government 362U, 365N (Topic: Security/Policy E Eur/Rus), Russian, Eastern Europe, and Eurasian Studies 335 (Topic: Security/Policy E Eur/Rus), 335 (Topic 31). Additional prerequisite: Upper-division standing.

**Topic 32: European Espionage 1914-1989.** Same as History 361S. Examine the development and transformation of espionage, intelligence, and surveillance in Europe from the first World War to the end of the Cold War. Three lecture hours a week for one semester. Only one of the following may be counted: History 361S, 362G (Topic: European Espionage 1914-89), Russian, East European, and Eurasian

Studies 335 (Topic 32). Additional prerequisite: Upper-division standing.

### **REE 345. Topics in Sociology, Geography, and Anthropology.**

Three lecture hours a week for one semester. Fulfills the basic Russian, East European, and Eurasian studies requirement in sociology, geography, and anthropology. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 2: Regions and Cultures of Europe.** Same as European Studies 346 (Topic 19) and Geography 326. Spatial patterns in Europe, with emphasis on cultural, historical, and political geography. Only one of the following may be counted: European Studies 346 (Topic: Regions and Cultures of Europe), 346 (Topic 19), Geography 326, Russian, East European, and Eurasian Studies 345 (Topic 2). Additional prerequisite: Upper-division standing.

**Topic 4: Geography of the Former Soviet Union.** Same as Geography 327. A systematic introduction to cultural, physical, political, and economic geography of the former Soviet Union. Focus on the fundamental transformation that the former Socialist Union Republics, now sovereign states, have undergone since 1991. Prerequisite: Upper-division standing.

**Topic 6: Northern Lands and Cultures.** Same as European Studies 346 (Topic 9) and Geography 356T (Topic 4). Develops geographical understanding of the Circumpolar region of the North, an ancient human habitat, home to distinct millennia-old civilizations. Only one of the following may be counted: European Studies 346 (Topic: Northern Lands and Cultures), 346 (Topic 9), Geography 356T (Topic: Northern Lands and Cultures), 356T (Topic 4), Russian, East European, and Eurasian Studies 345 (Topic: Northern Lands and Cultures), 345 (Topic 6). Additional prerequisite: Upper-division standing.

**Topic 7: Northern Gods, Northern Faiths: The Conversion of Scandinavians, Finns, Northern Slavs and Shamans.** Same as German, Scandinavian, and Dutch Studies 361G and Religious Studies 357N. An introduction to the basic source texts for several pre-Christian belief systems evolving in geographic proximity and their influence on one another including pre-Christian Slavic; pre-Christian Scandinavian; pre-Christian Sami and Finnish; and ancient and modern Siberian shamanism. Three lecture hours a week for one semester. Only one of the following may be counted: German, Scandinavian, and Dutch Studies 361G, Religious Studies 357 (Topic 16), 357N, Russian, East European, and Eurasian Studies 345 (Topic 7). Additional prerequisite: Upper-division standing.

**Topic 8: Cultures and Ecologies.** Same as Anthropology 325R. Examines the anthropology of "nature" and "natural resources," with particular attention to the communities in the arctic and subarctic regions. Use ethnographies to learn about the cultures of peoples who inhabit northern latitudes, especially their cosmological modes of belief and their ecological ways of life. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 325L (Topic: Cultures and Ecologies), 325L (Topic 16), 325R, Russian, East European, and Eurasian Studies 345 (Topic: Cultures and Ecologies), 345 (Topic 8). Additional prerequisite: Upper-division standing.

**Topic 9: Geography of Religion in Eastern Europe and Russia.** Same as Geography 356T (Topic 14) and Religious Studies 357G. A comprehensive overview of major religious culture regions in the former Eastern bloc countries. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 356T (Topic: Geography of Religion in Eastern Europe and Russia), 356T (Topic 14), Religious Studies 357 (Topic: Geography of Religion in Eastern Europe and Russia), 357 (Topic 5), 357G, Russian, East European, and Eurasian Studies 345 (Topic: Geography of Religion in

Eastern Europe and Russia), 345 (Topic 9). Additional prerequisite: Upper-division standing.

**Topic 10: Politics and Performance.** Same as Anthropology 323E. Consider the power struggles of the democratic process by closely attending to techniques and technologies of language, rhetoric, and performance. Examine this process in the American context, with attention to the recent influence of non-American developments such as "Kremlin propaganda techniques," the "weaponization" of fake news, and populist demagoguery. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323E, 324L (Topic: Politics and Performance), Russian, East European, and Eurasian Studies 345 (Topic: Politics and Performance), 345 (Topic 10). Additional prerequisite: Upper-division standing.

**Topic 12: Shamanism and the Primitive.** Same as Anthropology 325W, Asian Studies 341P, and Religious Studies 352G. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Shamanism & the Primitive), 325W, Asian Studies 340 (Topic: Shamanism & the Primitive), 341P, Religious Studies 352 (Topic: Shamanism & the Primitive), 352G, Russian, East European, and Eurasian Studies 345 (Topic: Shamanism & the Primitive), 345 (Topic 12). Additional prerequisite: Upper-division standing.

**Topic 13: Power and Resistance in Putin's Russia.** Same as Anthropology 322W. Examine power and resistance in contemporary Russia in a systematic way to allow engagement with larger, theoretical questions about state-citizen interactions beyond the margins of the liberal project. Consider examples from Russia and Eastern Europe to develop methodologies for studying how state power is analyzed "from below" by ordinary citizens seeking to shape politics and policy. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322W, 324L (Topic: Power and Resistance in Rus), Russian, East European, and Eurasian Studies 345 (Topic: Power and Resistance in Rus), 345 (Topic 13). Additional prerequisite: Upper-division standing.

**Topic 16: Comparative White Nationalisms.** Same as Anthropology 323I. Consider critical questions about the constructions of whiteness and nationalism across the globe. Examine, through an anthropological lens, how the boundaries of whiteness changed throughout history, and its relationship to far-right political groups, to trace the history of white nationalism and its present-day global resurgence. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323I, 324L (Topic: Comparing White Nationalisms), Russian, Eastern European, and Eurasian Studies 345 (Topic: Comparing White Nationalisms), 345 (Topic 16). Additional prerequisite: Upper-division standing.

### **REE 358Q. Supervised Research.**

Individual instruction. Prerequisite: Upper-division standing.

### **REE 379C. Conference Course.**

Conference course. May be repeated for credit. Prerequisite: Consent of the undergraduate adviser in Russian, East European, and Eurasian studies.

### **REE 679H. Honors Tutorial Course.**

Intensive reading and research planned with and approved by the honors adviser, followed by completion of a thesis. Conference course for two semesters. Required of Russian, East European, and Eurasian studies majors who plan to seek special honors in Russian, East European, and Eurasian studies. Prerequisite: For 679HA, upper-division standing, admission to the Russian, East European, and Eurasian Studies Honors Program, and consent of the honors adviser; for 679HB, Russian, East European, and Eurasian Studies 679HA.

## Graduate Courses

### REE 380. International Business Fellows Seminar.

Same as Asian Studies 391 (Topic 6), Latin American Studies 381 (Topic 8), and Middle Eastern Studies 380. Multidisciplinary seminar for students in area studies, business administration, law, and public policy. The faculty includes both academics and business leaders. Only one of the following may be counted: Asian Studies 391 (Topic 6), International Business 395 (Topic: International Business Fellows Seminar), Latin American Studies 381 (Topic 8), Middle Eastern Studies 380, Public Affairs 388K (Topic: International Business Fellows Seminar), Russian, East European, and Eurasian Studies 380.

### REE 381. Seminar in Russian, East European, and Eurasian Civilizations and Cultures.

Core course. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### REE 382. Conference Course in Russian, East European, and Eurasian Studies.

Individual instruction on some aspect of the former Soviet Union or Eastern Europe. Conference course. May be repeated for credit. Prerequisite: Graduate standing.

### REE 385. Topics in Russian, East European, and Eurasian Studies.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

### REE 386. Topics in Literature and Culture.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Chechnya: Politics, Power, and People.** The history, culture, religions, and recent upheaval of Chechnya. Russian, East European, and Eurasian Studies 385 (Topic: Chechnya: Politics, Power, and People) and 386 (Topic 1) may not both be counted.

**Topic 2: Bulgakov's Master and Margarita.** Only one of the following may be counted: Russian, East European, and Eurasian Studies 385 (Topic: Bulgakov's Master and Margarita), 385 (Topic 2), 386 (Topic 2).

**Topic 3: Russian Literature and the Devil.** Examines Russian literature's extensive reflection on the nature and place of evil in human existence. Only one of the following may be counted: Russian, East European, and Eurasian Studies 385 (Topic: Russian Literature and the Devil), 385 (Topic 3), 386 (Topic 3).

**Topic 4: Madness and Madmen in Russian Literature.** Russian, East European, and Eurasian Studies 385 (Topic: Madness and Madmen in Russian Literature) and 386 (Topic 4) may not both be counted.

**Topic 5: Stalinism: Ideology and Culture.** Same as History 386S. Examine Stalinism as a complex historical, ideological, and cultural phenomenon that crucially shaped Russia's destiny from the twentieth century to the present moment. Consider this phenomenon beyond popular stereotypes (blood-thirsty tyrant; miserable and terrorized population; total propaganda; etc). Three lecture hours a week for one semester. Only one of the following may be counted: History 386S, Russian, Eastern European, and Eurasian Studies 386 (Topic: Stalinism: Ideology & Culture), 386 (Topic 5). Additional prerequisite: Graduate standing.

**Topic 6: Memory and Archive in the European Novel.** Examine 20th-century European novels that function as archives of cultural memory to retrieve individual and collective memories that lay hidden and forgotten by 20th-century history. Consider critically acclaimed writers, such as W. G. Sebald, Dubravka Ugresic, Danilo Kis, Witold Gombrowicz, and Dasa Drndic. Russian, Eastern European, and

Eurasian Studies 386 (Topic: Memory/Archive in Europe) and 386 (Topic 6) may not both be counted.

**Topic 7: Conspiracy Culture in the United States and Russia.** Examine a wide spectrum of conspiracist expression, from such historical texts as The Protocols of the Elders of Zion to the fictions of Don DeLillo, Thomas Pynchon, Fyodor Dostoevsky, Viktor Pelevin, and others. Consider a number of pop culture artifacts that thematize conspiracy and paranoia, as well as secondary works by contemporary scholars working in the field of conspiracy studies. Russian, East European, and Eurasian Studies 386 (Topic: Conspiracy Culture US/Russia) and 386 (Topic 7) may not both be counted.

**Topic 8: Satire and Politics.** Explore several contemporary novels, featuring comedy or satire, from different Eastern European regions (Russia, Ukraine, Poland, Dagestan, Slovenia, Romania) to consider how complex history and politics are often intertwined with fantastical, humorous, and grotesque elements. Russian, East European, and Eurasian Studies 386 (Topic: Satire and Politics) and 386 (Topic 8) may not both be counted.

**Topic 9: Post-Communist Protest in Ukraine and Eastern Europe.**

Consider the range of protest movements and revolutions resulting from the collapse of communism in the former Soviet Union. Examine the dismantling of the "socialist realism" paradigm in literature and the arts, using a range of literary and non-fiction texts and films to explore these developments in Ukraine, Poland, Belarus, Russia, and other countries. Russian, East European, and Eurasian Studies 386 (Topic: Postcom Protest Ukraine/E Eur) and 386 (Topic 9) may not both be counted.

### REE 387. Topics in Economics, History, and Government.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Security and Policy in Eastern Europe and Russia.** Consider key foreign policy challenges and security issues facing post-communist Eastern European countries from the perspective of their respective NATO and EU memberships. Examine contemporary policy debates regarding a resurgent Russian, Chinese foreign policy outreach, and non-state actors, as well as challenges and concerns on terrorism, extremism, and ethnic, religious, and political radicalization. Only one of the following may be counted: Government 390L (Topic: Security/Policy E Eur/Rus), Russian, East European, and Eurasian Studies 387 (Topic: Security/Policy E Eur/Rus), 387 (Topic 1).

**Topic 2: Protest and Revolution in Eastern Europe.** Explore the causes, and the patterns and modes of mobilization, of protest and regime change in Eastern Europe from the 1956 Hungarian Revolution to the 2014 Ukrainian revolution. Examine and compare the specific national roots of discontent, the mechanics of mass mobilization, and the patterns of democratic uprisings, as well as the responses of national elites and external actors, in the context of these countries' socialist and post-socialist pathways. Russian, East European, and Eurasian Studies 387 (Topic: Protest and Rev in E Europe) and 387 (Topic 2) may not both be counted.

**Topic 3: Communism in Eastern Europe.** Same as History 383D. Explore the complicated nature of communist rule in Eastern Europe in its many forms, from Poland in the North to Yugoslavia in the South. Examine the variety of lived experiences of citizens of Eastern Europe, from the imposition of communism in the region after World War II to the collapse of the system in 1989. Discuss the most recent scholarship on the region that ties regional developments to the broader Cold War context, and covers issues ranging from state-society dynamics, to religion, consumer culture, urban change, and collectivization. Three lecture hours a week for one semester. Only one of the following may be counted: History 383J (Topic: Communism/Eastern Europe), 383D, Russian, East European, and Eurasian Studies

385 (Topic: Communism/ Eastern Europe), 387 (Topic: 3). Additional prerequisite: Graduate standing.

### **REE 388. Topics in Anthropology, Sociology, and Geography.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Post-Soviet Geopolitics.** Examine the major geopolitical issues in the post-Soviet space, including the history of formation of ethnic and cultural identities, nation-building, and challenges to the regional development. Consider the influences of the 'new world order' on the former Soviet Union republics and their political, demographic, and socio-economic patterns, with special attention on the development of foreign relations by the newly independent countries with their neighbors. Russian, East European, and Eurasian Studies 388 (Topic: Post-Soviet Geopolitics) and 388 (Topic 1) may not both be counted.

**Topic 2: Global Race and Racism.** Trace the concept of race over time and in its various socio-racial configurations across the globe. Consider race and racism from a global perspective, and utilize anthropological frameworks to analyze the historical and contemporary aspects of racism, racialization, white supremacy, and racial belonging. Russian, East European, and Eurasian Studies 388 (Topic: Global Race and Racism) and 388 (Topic 2) may not both be counted.

**Topic 3: Ethnography of Digital Media.** Investigate new digital technologies and their impact on social worlds, survey old media paradigms (the novel, the newspaper), and explore new social kinds (the troll, the hashtag, the GIF archive, the emoticon, the TikTok challenge). Focus on the "practical" contributions to conversations about media, but also consider classical theoretical text to develop a rigorous understanding of new media forms, and to design ethnographic data collection methods for projects that can answer a variety of questions about digitally mediated interaction. Russian, East European, and Eurasian Studies 388 (Topic: Ethnography of Digital Media) and 388 (Topic 3) may not both be counted.

### **REE 189. Master's Writing Colloquium.**

Receive guidance and assistance through the process of writing a Master's thesis or report. Intended for Master of Arts candidates in the final year of their graduate studies. One lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and concurrent registration in a thesis or report class.

### **REE 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Russian, East European, and Eurasian studies; for 698B, Russian, East European, and Eurasian Studies 698A.

### **REE 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Russian, East European, and Eurasian studies.

## **Professional Courses**

# **Sanskrit Courses**

## **Sanskrit: SAN**

### **Lower-Division Courses**

#### **SAN 506. First-Year Sanskrit I.**

Introduction to basic grammatical principles, with reading of Ramayana episodes as illustrations. Five class hours a week for one semester.

#### **SAN 507. First-Year Sanskrit II.**

Detailed study of problems of grammar and syntax; reading of extracts from Hitopadesha and the Bhagavad Gita. Five class hours a week for one semester. Prerequisite: Sanskrit 506 with a grade of at least C.

#### **SAN 312K. Second-Year Sanskrit I.**

Introduction to classical Sanskrit prose literature; readings from the Epics and Kathasaritsagara. Three lecture hours a week for one semester. Prerequisite: Sanskrit 507 with a grade of at least C.

#### **SAN 312L. Second-Year Sanskrit II.**

Introduction to classical Sanskrit poetry and philosophical literature; readings from the Upanishads and Kalidasa's Meghaduta. Three lecture hours a week for one semester. Prerequisite: Sanskrit 312K with a grade of at least C.

#### **SAN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Sanskrit.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **Upper-Division Courses**

#### **SAN 325K. Advanced Sanskrit Readings and Composition I.**

Three lecture hours a week for one semester. Prerequisite: Sanskrit 312L with a grade of at least C.

#### **SAN 325L. Advanced Sanskrit Readings and Composition II.**

Three lecture hours a week for one semester. Prerequisite: Sanskrit 325K with a grade of at least C.

#### **SAN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Sanskrit.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **SAN 330. Topics in Sanskrit Language and Literature.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Sanskrit 312L with a grade of at least C.

**Topic 1: Sanskrit Drama.** Provides students with a firmer foundation in Sanskrit grammar, syntax, and vocabulary; and an appreciation of the aesthetics of Sanskrit drama. Sanskrit 330 (Topic: Sanskrit Drama) and 330 (Topic 1) may not both be counted.

**Topic 2: Vedic Poetry.** Religious and literary features of Vedic poetry, the development of Vedic Sanskrit, and the relation of Vedic to Classical Sanskrit. Sanskrit 330 (Topic: Vedic Poetry) and 330 (Topic 2) may not both be counted.

### **SAN 330C. Bhagavata Purana.**

Examine the famous Bhagavata-Purana, a collection of stories and theologies of Vaisnava Hinduism, with a focus on selected readings from the tenth book or canto of the text, which contains a theological biography of Krsna. Develop both broad and deep knowledge of the text, and explore its significance within Sanskrit intellectual, literary, and religious histories. Three lecture hours a week for one semester. Sanskrit 330 (Topic: Bhagavata Purana) and 330C may not both be counted. Prerequisite: Sanskrit 312L with a grade of at least C.

### **SAN 330D. Kumarasambhava of Kalidasa.**

Focus on the third and fifth cantos of the Kumarasambhava of Kalidasa, a poetic masterpiece of Sanskrit literature. Consider the poetics and compositional style of the text, the style of Sanskrit commentary, and the translation of complex Sanskrit verse into English, as well as the mythological assumptions, social perspectives, and cultural concerns that inform the text. Three lecture hours a week for one semester. Sanskrit 330 (Topic: Kumarasambhava of Kalidasa) and 330D may not both be counted. Prerequisite: Sanskrit 312L with a grade of at least C.

### **SAN 330E. Dharmasastra.**

Examine selected topical readings from the genre of Sanskrit literature called Dharmasastra, also known loosely as Hindu law, with focus on legal and religious topics of dharma from the earliest sutras to the smrtis to the later commentaries and digests. Three lecture hours a week for one semester. Sanskrit 330 (Topic: Dharmasastra) and 330E may not both be counted. Prerequisite: Sanskrit 312L with a grade of at least C.

### **SAN 330F. Buddhist and Jain Sanskrit.**

Examine selections from important texts of Buddhist and Jain traditions with a focus on the Sanskrit vocabulary and style of these traditions, as well as their conceptual, doctrinal, and narrative foundations. Focus on both systematic expositions of religious doctrine (sastra, darsana), and on narrative theologies (katha, carita, avadana) to facilitate comparison between the two religious traditions. Three lecture hours a week for one semester. Sanskrit 330 (Topic: Buddhist and Jain Sanskrit) and 330F may not both be counted. Prerequisite: Sanskrit 312L with a grade of at least C.

### **SAN 330G. Purva-Mimamsa.**

Examine the Purva-Mimamsa, the system of hermeneutics developed to interpret the intricate ritual prescriptions of the Brahmana texts in the Vedic corpus. Explore this system through study of a primer of Mimamsa hermeneutics in Sanskrit, and through secondary readings providing context and broader background to the influence of Mimamsa. Three lecture hours a week for one semester. Sanskrit 330 (Topic: Intro to Purva-Mimamsa) and 330G may not both be counted. Prerequisite: Sanskrit 312L with a grade of at least C.

### **SAN 330U. The Upanishads.**

Three lecture hours a week for one semester. Sanskrit 330 (Topic: The Upanishads) and 330U may not both be counted. Prerequisite: Sanskrit 312L with a grade of at least C.

### **SAN 360. Conference Course in Sanskrit Language and Literature.**

Supervised individual study of selected problems in Sanskrit language or literature. Conference course. May be repeated for credit. Prerequisite:

Upper-division standing, Sanskrit 312L, and written consent of instructor on form obtained from the undergraduate adviser.

## **Graduate Courses**

### **SAN 381. Conference Course in Sanskrit Language and Culture.**

Supervised individual study in Sanskrit language or culture. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor on form obtained from the graduate coordinator.

### **SAN 384S. Topics in Sanskrit Language and Culture.**

Study of various aspects and periods of Sanskrit language and culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; and Sanskrit 325L, 330, or the equivalent, or consent of instructor.

**Topic 1: Advanced Readings in Sanskrit.**

**Topic 2: Readings in Classical Sanskrit Prose and Literature.**

**Topic 3: Sanskrit Drama.** Provides students with a firmer foundation in Sanskrit grammar, syntax, and vocabulary; and an appreciation of the aesthetics of Sanskrit drama. Sanskrit 384S (Topic: Sanskrit Drama) and 384S (Topic 3) may not both be counted.

**Topic 4: Vedic Poetry.** Religious and literary features of Vedic poetry, the development of Vedic Sanskrit, and the relation of Vedic to Classical Sanskrit. Sanskrit 384S (Topic: Vedic Poetry) and 384 (Topic 4) may not both be counted.

**Topic 5: The Upanishads.** Sanskrit 384S (Topic: The Upanishads) and 384S (Topic 5) may not both be counted.

**Topic 6: Bhagavata Purana.** Examine the famous Bhagavata-Purana, a collection of stories and theologies of Vaisnava Hinduism, with a focus on selected readings from the tenth book or canto of the text, which contains a theological biography of Krsna. Develop both broad and deep knowledge of the text, and explore its significance within Sanskrit intellectual, literary, and religious histories. Sanskrit 384S (Topic: Bhagavata Purana) and 384S (Topic 6) may not both be counted.

**Topic 7: Kumarasambhava of Kalidasa.** Focus on the third and fifth cantos of the Kumarasambhava of Kalidasa, a poetic masterpiece of Sanskrit literature. Consider the poetics and compositional style of the text, the style of Sanskrit commentary, and the translation of complex Sanskrit verse into English, as well as the mythological assumptions, social perspectives, and cultural concerns that inform the text. Sanskrit 384S (Topic: Kumarasambhava of Kalidasa) and 384S (Topic 7) may not both be counted.

**Topic 8: Dharmasastra.** Examine selected topical readings from the genre of Sanskrit literature called Dharmasastra, also known loosely as Hindu law, with focus on legal and religious topics of dharma from the earliest sutras to the smrtis to the later commentaries and digests. Sanskrit 384S (Topic: Dharmasastra) and 384S (Topic 8) may not both be counted.

**Topic 9: Buddhist and Jain Sanskrit.** Examine selections from important texts of Buddhist and Jain traditions with a focus on the Sanskrit vocabulary and style of these traditions, as well as their conceptual, doctrinal, and narrative foundations. Focus on both systematic expositions of religious doctrine (sastra, darsana), and on narrative theologies (katha, carita, avadana) to facilitate comparison between the two religious traditions. Sanskrit 384S (Topic: Buddhist and Jain Sanskrit) and 384S (Topic 9) may not both be counted.

**Topic 10: Purva-Mimamsa.** Examine the Purva-Mimamsa, the system of hermeneutics developed to interpret the intricate ritual prescriptions of the Brahmana texts in the Vedic corpus. Explore this system through study of a primer of Mimamsa hermeneutics

in Sanskrit, and through secondary readings providing context and broader background to the influence of Mimamsa.

## Professional Courses

# Science and Technology Commercialization Courses

## Science and Technology Commercialization: STC

### Lower-Division Courses

### Upper-Division Courses

### Graduate Courses

#### STC 380C. Assessing Technologies and Innovations.

Restricted to students in the technology commercialization program. Explore the first step in the commercialization process: generating or identifying ideas and technologies that have market potential. Apply multiple methodologies to assess the market potential of new ideas and technologies. The equivalent of three lecture hours a week for one semester. Science and Technology Commercialization 380 and 380C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### STC 081C. Strategic Career Planning.

Restricted to students in the Master of Science in Technology Commercialization program. Hours to be arranged May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

#### STC 382. Marketing Technological Innovations.

Restricted to students in the technology commercialization program. Examine how taking a technology from idea to market requires persuasion and marketing skills. Develop a persuasive proposal and marketing plan for taking a product to market. Meets all day on alternate Fridays and Saturdays. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### STC 183C. Art and Science of Negotiation.

Restricted to students in the technology commercialization program. Explore negotiation through the application of analytical frameworks in practical negotiation exercises. Meets all day on alternate Fridays and Saturdays. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### STC 384C. New Venture Strategies.

Restricted to students in the technology commercialization program. Develop strategies for commercializing technologies as new ventures or within existing firms. The equivalent of three lecture hours a week for one semester. Science and Technology Commercialization 384 and 384C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### STC 385. Creative and Innovative Management.

Restricted to students in the technology commercialization program. Apply critical reasoning techniques to analyze, diagnose, and respond to organizational design and leadership issues in a new venture. Meets all day on alternate Fridays and Saturdays. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### STC 386. Topics in Technology Commercialization.

The process of technology commercialization, managing technology, and other topics that include the commercialization of technology. Meets

all day on alternate Fridays and Saturdays. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the technology commercialization program.

**Topic 1: Financing New Ventures.** Methods for determining capital requirements and ways of crafting financial and fund-raising strategies. Forms of financing, including angels and informal investors, venture capital, debt capital, and inside and outside equity. Offered on the letter-grade basis only.

**Topic 2: Managing Technology and Business Risks.** Restricted to students in the technology commercialization program. Explore decision and risk analysis, including methods for structuring and modeling decision problems. Apply methods to problems that involve risk and uncertainty in the commercialization of new technologies. Offered on the letter-grade basis only.

#### STC 287. New Venture Accounting.

Restricted to students in the technology commercialization program. Analyze and create financial statements as a critical tool in decision-making for a new venture. Meets all day on alternate Fridays and Saturdays. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### STC 288. Financing New Ventures.

Prepare financial projections and develop a financial plan for funding a new venture. Meets all day on alternate Fridays and Saturdays. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### STC 389. Problems in Specialized Fields.

Independent study. Offered on the letter-grade basis only. Prerequisite: Graduate standing and admission to the technology commercialization program.

#### STC 291C. Technology Commercialization in the Global Economy.

Restricted to students in the technology commercialization program. Examine technology commercialization in the global context, assessing global markets and positioning for competitive advantage within them. Develop a plan for commercializing a technology within a foreign country. The equivalent of two lecture hours a week for one semester. Science and Technology Commercialization 291 and 291C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### STC 294C, 394C. Managing Product Development and Production.

Restricted to students in the technology commercialization program. Develop a plan for taking an innovation from idea to a product ready for market. Meets all day on alternate Fridays and Saturdays. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### STC 395. New Venture Creation.

Restricted to students in the technology commercialization program. Explore how to raise capital, either from outside investors or internal corporate sources, by validating the market potential of the new technology, developing a business model, determining financial requirements, and communicating the opportunity convincingly. Develop a business plan to address these key elements. Meets all day on alternate Fridays and Saturdays. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### STC 396. New Venture Design and Implementation.

Restricted to students in the technology commercialization program. Develop a business implementation plan for a technology enterprise or

project by establishing operational roles and processes. Meets all day on alternate Fridays and Saturdays. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

## Professional Courses

# Science Courses

## Science: SCI

### Lower-Division Courses

### Upper-Division Courses

#### SCI 360. Seminar on Recent Advances in Science.

Recent advances in the life, earth/space, and physical sciences. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: For certified teachers, a bachelor's degree or consent of instructor; for others, six semester hours of coursework in science, in the biological sciences, in one of the physical sciences, or in one of the earth/space sciences, or consent of instructor.

Topic 1: Life Science.

Topic 2: Earth Science.

Topic 3: Physical Science.

#### SCI 365. Physics by Inquiry.

Investigates two areas of natural sciences and technology: electric circuits, an engineered phenomenon, and optics, the interaction of light and vision, physical and biological natural phenomena. Three lecture hours a week for one semester. Science 360 (Topic 4) and 365 may not both be counted.

## Graduate Courses

### Professional Courses

# Science, Technology, and Society Courses

## Science, Technology, and Society: STS

### Lower-Division Courses

#### STS 101. Key Ideas and Issues in Science, Technology, and Society.

Designed to introduce students to the main areas of interest in science, technology, and society. Lectures, readings, and discussions include speakers from various academic disciplines. One lecture hour a week for one semester. Offered on the pass/fail basis only.

#### STS 311. Topics in Science, Technology, and Society.

Some topics may include an academic service-learning component. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### STS 318. How We Shape Discoveries and How They Shape Us.

Technical, historical, and cultural approaches to the multiple dimensions and complexities of scientific and technological innovation, and how they shape and are shaped by society. Cases for discussion are drawn from energy discoveries, nanoscience, biomedicine, and materials science advances. Three lecture hours a week for one semester.

#### STS 319. Information Technology and Social Life.

The impact of technologies on social life, and the necessity for applying skills developed in the liberal arts to managing new ways of life mediated through technologies, including work and home environments. Includes

an academic service-learning component. Three lecture hours a week for one semester.

## Upper-Division Courses

#### STS 321. Introduction to Science, Technology, and Society.

Introduction to the history of communication technology, including how past innovations shaped societies and how current changes are transforming human cultures, universities, and the liberal arts. Three lecture hours a week for one semester. Prerequisite: Completion of at least thirty semester hours of coursework.

#### STS 331. Topics in Science, Technology, and Society.

Some topics may include an academic service-learning component. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### STS 332. The Nanotechnology and Science Revolution.

The societal impacts of nanotechnology and how this emerging technology might transform the future of technologies, manufacturing, and innovation. Three lecture hours a week for one semester. Science, Technology, and Society 331 (Topic: Impacts of Science: Nanotechnology, Technology, and Life) and 332 may not both be counted.

#### STS 360. Senior Seminar in Science, Technology, and Society.

Senior capstone seminar. Allows the student to integrate the knowledge he or she has gained in the major field of study with that provided by the concentration in science, technology, and society. Three lecture hours a week for one semester. Prerequisite: Completion of at least ninety semester hours of coursework, including Science, Technology, and Society 321.

#### STS 367. Conference Course in Science, Technology, and Society.

Supervised work on specific projects in science, technology, and society. Three conference hours a week for one semester. May be repeated for credit. Prerequisite: Completion of at least thirty-six semester hours of coursework and approval of written application by the supervising instructor.

#### STS 370. Research Internship.

Supervised fieldwork in a business or community setting related to the student's career and research interests. Approximately six to ten hours of work a week for one semester, to be arranged with faculty member and internship sponsor. May be repeated for credit, but no more than six semester hours of Science, Technology, and Society 370 may be counted toward the concentration requirement. Prerequisite: Science, Technology, and Society 321, upper-division standing, and consent of instructor.

## Graduate Courses

#### STS 380. Proseminar: Current Issues in the Societal Impact of Science and Technology.

Overview of the fundamentals of the practice of science, and of science as a human enterprise that interacts with and transforms cultural views, ideas, and habits. Includes lectures by natural scientists, engineers, and social scientists on the societal impact of rapid scientific technological developments from the perspectives of their individual disciplines. Students complete a comprehensive research project on a topic related to the course. Three lecture hours a week for one semester. May not be repeated for credit. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

## Professional Courses

# Science, Technology, Engineering, and Mathematics Education Courses

## Science, Technology, Engineering, and Mathematics Education: STM

### Lower-Division Courses

### Upper-Division Courses

### Graduate Courses

#### **STM 180, 280, 380. Topics in Teaching Science, Technology, Engineering, and Mathematics.**

Classroom applications of research in science, technology, engineering, and mathematics education, and related policy issues. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

##### **Topic 1: Quantitative Research Methods for STEM Educators.**

Restricted to students enrolled in STEM Education Master's program. Survey of quantitative research methods in STEM education with applications to critical issues in teaching and learning. Methods reviewed include t-test, ANOVA, Chi-squared, and correlation and regression. Offered on the letter-grade basis only.

##### **Topic 2: Qualitative Research Methods for STEM Educators.**

Restricted to students enrolled in STEM Education Master's program. Survey of qualitative research methods in STEM education with applications to critical issues in teaching and learning. Methods reviewed include grounded analysis, case studies, ethnographies, clinical interviews and surveys. Students read and critique examples from the published literature, and design (but do not necessarily implement) a study of their own. Offered on the letter-grade basis only.

#### **STM 385. Knowing and Learning in STEM Education.**

Different approaches to theorizing and studying science, technology, engineering, and mathematics (STEM) learning and epistemology and synthesis of the scientific basis of learning. A major research project will focus on studying students' thinking in a particular STEM related domain. Prerequisite: Graduate standing.

#### **STM 385G. Seminar: Program Development and Research.**

Advanced investigations of selected topics and problems in curriculum theory, program design, and research design at one of the following levels: elementary school, secondary school, higher education, all-level. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **STM 386. Curriculum History and Development in STEM Education.**

Historical development of school mathematics and science curricula in the United States in the last 150 years, and examination of current curricular trends. A summative project consisting of a research paper and a presentation will allow students to delve deeper into a topic of individual interest. Prerequisite: Graduate standing.

#### **STM 390. Critical Issues in STEM Education.**

In-depth study of issues that are central to understanding and improving STEM education at one of the following levels: elementary school, secondary school, higher education, or all-level. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Equity in STEM Education.** Study of the meaning of equity in STEM education and how interpretations align with frameworks for viewing equity. Research, practice, and strategies designed to make STEM education equitable for students of diverse genders, ethnicities, linguistic and cultural backgrounds, socioeconomic status, and physical and learning abilities. History of multicultural education, mathematics, and science teaching for social justice.

**Topic 2: Research on Teaching and Teacher Development in STEM Education.** Scholarship related to STEM teaching and how it can be used to address problems in K-12 school instruction. Research on teaching, teacher knowledge and beliefs, and teacher education and professional development; relationships among research, theory, and practice; and consideration of a variety of critical issues, including the meaning of effective instruction and evidence-based arguments about teaching, and how research on student thinking and theories of learning inform our understanding of teaching.

**Topic 3: Systemic Reform in STEM Education.** Overview of the major efforts at systemic reform in STEM education. Development and testing of models of reform initiatives.

#### **STM 390T. Advanced Topics in STEM Education.**

Advanced investigations of selected topics and critical issues in STEM education aligned with STEM education faculty research interests. Students will typically produce a product (paper, presentation, proposal) that can be submitted to professional or funding agencies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

#### **STM 695. Classroom Interactions and Project Based Instruction.**

Restricted to students in the UTeach Natural Sciences post-baccalaureate program. Students are assigned to a mentor teacher classroom where they might continue as apprentice teachers the next semester. At least three hours a week of observation and teaching in the classroom, in addition to the six contact hours per week. Preparation, implementation, and assessment of inquiry- and project-based lessons, focusing on student thinking and participation, and meeting the needs of students with reading and writing difficulties, those learning in a second language, and those with behavioral and psychological issues. Six lecture hours a week for one semester, with additional hours to be arranged. Curriculum and Instruction 665 and Science, Technology, Engineering, and Mathematics Education 695 may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing; Curriculum and Instruction 365C or Science, Technology, Engineering, and Mathematics Education 385.

#### **STM 196, 396. STEM Education Forum.**

Seminar highlighting current research in STEM education. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

#### **STM 196T, 296T, 396T, 696T, 996T. Directed Research in Science, Technology, Engineering and Mathematics Education.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

#### **STM 197V, 397V. Independent Study.**

Involves syntheses of literature, field investigations on selected topics, or other individual research topics. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **STM 698. Thesis.**

The equivalent of three hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in science, technology, engineering, and mathematics education and consent of the graduate adviser; for 698B, Science, Technology, Engineering, and Mathematics Education 698A.

### **STM 398R. Master's Report.**

Restricted to master's students in science, technology, engineering, and mathematics education. Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **STM 398T. Supervised Teaching in Science, Technology, Engineering, and Mathematics Education.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing and appointment as a teaching assistant or assistant instructor in science, technology, engineering, and mathematics education.

### **STM 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Serbian/Croatian Courses**

## **Serbian/Croatian: S C**

### **Lower-Division Courses**

#### **S C 601C. Intensive Bosnian/Croatian/Serbian I.**

Not open to native or heritage speakers of Bosnian/Croatian/Serbian. Emphasis on developing oral proficiency in Bosnian/Croatian/Serbian using intensive methods of instruction. Six lecture hours a week for one semester. Serbian/Croatian 601C and 506 may not both be counted. Serbian/Croatian 601C and 507 may not both be counted.

#### **S C 506. First-Year Bosnian/Croatian/Serbian I.**

Emphasis on proficiency in four skills: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Serbian/Croatian 601C and 506 may not both be counted.

#### **S C 507. First-Year Bosnian/Croatian/Serbian II.**

Emphasis on proficiency in four skills: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Serbian/Croatian 601C and 507 may not both be counted. Prerequisite: Serbian/Croatian 506.

#### **S C 611C. Intensive Bosnian/Croatian/Serbian II.**

Not open to native or heritage speakers of Bosnian/Croatian/Serbian. Continuing intensive development of proficiency in Bosnian/Croatian/Serbian, with a focus on speaking and the reading of authentic texts. Six lecture hours a week for one semester. Serbian/Croatian 611C and 312K may not both be counted. Serbian/Croatian 611C and 312L may not both be counted. Prerequisite: Serbian/Croatian 601C or 507.

#### **S C 312K. Second-Year Bosnian/Croatian/Serbian I.**

Listening, speaking, reading, and writing at the second-year level. Three lecture hours a week for one semester. Serbian/Croatian 611C and 312K may not both be counted. Prerequisite: Serbian/Croatian 601C or 507.

#### **S C 312L. Second-Year Bosnian/Croatian/Serbian II.**

Listening, speaking, reading, and writing at the advanced, second-year level. Three lecture hours a week for one semester. Serbian/Croatian 611C and 312L may not both be counted. Prerequisite: Serbian/Croatian 312K.

## **Upper-Division Courses**

#### **S C 324. Topics in Bosnian/Croatian/Serbian Studies.**

Selected aspects of Bosnian/Croatian/Serbian history and culture. Conducted in English. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### **S C 325. Third-Year Bosnian/Croatian/Serbian I.**

Oral expression, reading, and composition. Three lecture hours a week for one semester. Prerequisite: Serbian/Croatian 611C or 312L.

#### **S C 326. Third-Year Bosnian/Croatian/Serbian II.**

Oral expression, reading, and composition. Three lecture hours a week for one semester. Prerequisite: Serbian/Croatian 325.

#### **S C 379. Conference Course in Bosnian/Croatian/Serbian.**

Conference course. May be repeated for credit. Prerequisite: Serbian/Croatian 312K and 312L and consent of instructor.

## **Graduate Courses**

#### **S C 392. Topics in Bosnian, Croatian, and Serbian Language.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

#### **S C 395. Conference Course.**

Study of individual problems in Serbian and Croatian languages, literature, and culture. Conference course. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in the Department of Slavic and Eurasian Studies, or graduate standing and consent of instructor.

## **Professional Courses**

# **Slavic and Eurasian Languages Courses**

## **Slavic and Eurasian Languages: SEL**

### **Lower-Division Courses**

#### **SEL 601C. Intensive Slavic and Eurasian Languages I.**

Emphasis on basic communication skills in Slavic and Eurasian languages: listening, speaking, reading, and writing. Includes introduction to Slavic and Eurasian cultures. Six lecture hours a week for one semester. Slavic and Eurasian Languages 601C and 506 may not both be counted unless the languages vary. Slavic and Eurasian Languages 601C and 507 may not both be counted unless the languages vary. May be repeated for credit when the topics vary.

#### **SEL 506. First-Year Slavic and Eurasian Languages I.**

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Slavic and Eurasian Studies 601C and 506 may not both be counted unless the languages vary. May be repeated for credit when the topics vary.

### **SEL 507. First-Year Slavic and Eurasian Languages II.**

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. Five lecture hours a week for one semester. Slavic and Eurasian Languages 601C and 507 may not both be counted unless the languages vary. May be repeated for credit when the topics vary. Prerequisite: Slavic and Eurasian Languages 506 in the same language.

### **SEL 611C. Intensive Slavic and Eurasian Languages II.**

Continuing intensive development of communication abilities in Slavic and Eurasian languages with emphasis on the four basic skills: listening, speaking, reading, and writing. Includes an introduction to Slavic and Eurasian cultures. Six lecture hours a week for one semester. Slavic and Eurasian Languages 611C and 312K may not both be counted unless the languages vary. Slavic and Eurasian Languages 611C and 312L may not both be counted unless the languages vary. May be repeated for credit when the topics vary. Prerequisite: Slavic and Eurasian Languages 601C or 507 in the same language.

### **SEL 312K. Second-Year Slavic and Eurasian Languages I.**

Listening, speaking, reading, and writing at the second-year level. Three lecture hours a week for one semester. Slavic and Eurasian Studies 611C and 312K may not both be counted unless the languages vary. May be repeated for credit when the topics vary. Prerequisite: Slavic and Eurasian Languages 601C or 507 in the same language.

### **SEL 312L. Second-Year Slavic and Eurasian Languages II.**

Listening, speaking, reading, and writing at the advanced, second-year level. Three lecture hours a week for one semester. Slavic and Eurasian Languages 611C and 312L may not both be counted unless the languages vary. May be repeated for credit when the topics vary. Prerequisite: Slavic and Eurasian Languages 312K in the same language.

## **Upper-Division Courses**

### **SEL 330. Topics in Slavic and Eurasian Languages.**

Intermediate or advanced language instruction in a range of individual Slavic and Eurasian languages. Slavic and Eurasian language texts in the original language, writing assignments, and conversation practice to improve language proficiency in all of these modes of communication. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Slavic and Eurasian Languages 611C or 412L; additional prerequisites vary with the topic.

### **SEL 379. Conference Course in Slavic and Eurasian Languages.**

Conference course. May be repeated for credit. Prerequisite: Written consent of instructor.

## **Graduate Courses**

### **SEL 385. Topics in Slavic and Eurasian Languages.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Accelerated Romanian for Research.** Explore a variety of grammatical and idiomatic features of the Romanian language, and apply this knowledge to the translation of various representative literary, historical, and academic texts from Romanian into English. Survey Romanian history and a limited selection of significant Romanian texts in English translation. Slavic and Eurasian Languages 385 (Topic: Accel Romanian for Research) and 385 (Topic 1) may not both be counted. Additional prerequisite: Prior advanced knowledge in either a Romance language or a case-inflected European language.

### **SEL 395. Conference Course in Slavic and Eurasian Languages.**

Conference course. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor.

## **Professional Courses**

# **Social Science Courses**

## **Social Science: S S**

### **Lower-Division Courses**

#### **S S 302C. Honors Social Science: Methods and Theory.**

Restricted to students in the Plan II Honors Program. An introduction to the study of the individual, society, or culture using the methods and theories of one of the Social Sciences. Three lecture hours a week for one semester. Social Science 301 and 302C may not both be counted.

#### **S S 302D. Honors Social Science: Psychology.**

Restricted to students in the Plan II Honors Program. An introduction to the study of the individual, society, or culture using the methods of the social science discipline of Psychology. Three lecture hours a week for one semester. Social Science 301 and 302D may not both be counted.

#### **S S 302E. Honors Social Science: Anthropology.**

Restricted to students in the Plan II Honors Program. An introduction to the study of the individual, society, or culture using the methods of the social science discipline of Anthropology. Three lecture hours a week for one semester. Social Science 301 and 302E may not both be counted.

#### **S S 302F. Honors Social Science: Economics.**

Restricted to students in the Plan II Honors Program. An introduction to the study of the individual, society, or culture using the methods of the social science discipline of Economics. Three lecture hours a week for one semester. Social Science 301 and 302F may not both be counted.

## **Upper-Division Courses**

## **Graduate Courses**

## **Professional Courses**

# **Social Work Courses**

## **Social Work: S W**

### **Lower-Division Courses**

#### **S W 310 (TCCN: SOCW 2361). Introduction to Social Work and Social Welfare.**

Introduction to the profession of social work including its fields of practice; values and ethics; its history and the social welfare policies that undergird it; its interactions with contexts which shape practice; and its promotion of social and economic justice to advance human rights, alleviate critical social problems, and promote wellbeing. Discuss engaging diversity and differences in social work practice. Three lecture hours a week for one semester, and forty-five clock hours of service learning.

#### **S W 311. Introductory Topics in Social Work.**

Selected introductory topics in the social work profession. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 3: Introduction to the Criminal Justice System.** Social Work 311 (Topic: Criminal Justice System) and 311 (Topic 3) may not both be counted.

### **S W 312. Generalist Social Work Practice: Knowledge, Values, and Skills.**

Restricted to social work majors. Introduction to the fundamental values, ethics, skills, and knowledge relevant to generalist social work practice. Three lecture hours a week for one semester, and forty-five clock hours of service learning. Prerequisite: Social Work 310 with a grade of at least a C.

### **S W 313. Social Work Research Methods.**

Restricted to social work majors. Introduction to social work values, the research process, problem formulation and conceptualization, measurement, research design and inference, single-subject design and practice evaluation, sampling, alternative data gathering techniques and analyses, and uses of research in social work. Three lecture hours a week for one semester. Prerequisite: Credit or registration for Social Work 318 or the equivalent.

### **S W 318. Social Work Statistics.**

Restricted to social work majors. Introduction to the conceptual and quantitative tools used to describe and interpret data in the conduct of social work practice and research. Select, calculate, and interpret appropriate statistics applicable to common data analysis situations related to direct practice, administration and planning, and policy. Explore R statistical software to calculate statistics and present results. Three lecture hours a week for one semester.

## **Upper-Division Courses**

### **S W 323K. Social Welfare Programs, Policies, and Issues.**

Restricted to social work majors. Analyze contemporary social welfare policy issues and programs and discuss the relationship between social policy and social work practice. Explore the historical, political, economic, and social conditions that influence policy development in the United States. Use policy analysis tools in order to examine how policy influences practice and planning decisions and how social workers can influence social welfare policy. Three lecture hours a week for one semester. Prerequisite: Social Work 310, 312, 313, 318, and 325 with a grade of at least a C; Government 310L; three hours of core History courses; and three hours of Economics.

### **S W 325. Foundations of Social Justice.**

Restricted to social work majors. Explore how membership in vulnerable population groups influences an individual's life experiences, world view, and increases risk factors for exposure to discrimination, economic deprivation, and oppression. Apply social justice approaches to influence assessment, planning, access to resources, intervention, and research. Critically analyze distributive justice, human and civil rights, and global interconnections of oppression. Examine the impact of discrimination and oppression by individuals and society on people of culturally diverse backgrounds and orientations. Three lecture hours a week for one semester.

### **S W 327. Human Behavior and Social Environment.**

Same as Urban Studies 328S. Restricted to social work majors. Explore the biopsychosocial and cultural functioning of human beings across the life span using an ecological-systems lens and major developmental theories as a framework to guide the processes of assessment, intervention, and evaluation. Discuss the impact of the family, social groups, organizations, communities, and society on individuals during these stages of the life span. Examine empirically-based research reflecting a risk and resilience perspective in making client assessments and recommending appropriate interventions. Three lecture hours and

one laboratory hour a week for one semester. Only one of the following may be counted: Social Work 327, Urban Studies 354 (Topic: Human Behavior and Social Environment), 354 (Topic 10), Urban Studies 328S Prerequisite: For social work majors, Social Work 310, 312, 313, 318, and 325 with a grade of at least C; for others, upper-division standing.

### **S W 329. Transformative Teams In Health Care.**

Restricted to social work majors and students pursuing a social work minor. Engage in interprofessional team work, including an examination of the backgrounds and contributions of different professions and teams. Identify examples of highly functional vs. dysfunctional team interactions. Explore integrated behavioral health for patient care. Three lecture hours a week for one semester. Social Work 329 and 360K (Topic: Transformative Teams Hlthcr) may not both be counted. Offered on the pass/fail basis only. Prerequisite: The following with a grade of at least C in each: Social Work 310, 312, and 325.

### **S W 332. Social Work Practice with Individuals and Families.**

Restricted to social work majors. Examine the helping process within the context of an ecosystems developmental framework. Explore engaging clients in an appropriate working relationship; communication skills; identifying issues, problems, needs, resources, and assets; and planning for service delivery. Pay special attention to understanding, affirming, and respecting people from diverse backgrounds, including (but not limited to) groups distinguished by race, ethnicity, culture, class, gender, sexual orientation, religion, physical or mental ability, age, and national origin. Three lecture hours a week for one semester. Prerequisite: Social Work 327 with a grade of at least C.

### **S W 333. Social Work Practice with Groups.**

Restricted to social work majors. Explore group dynamics and effective leadership skills, through social work values and the ethical decision-making process. Discuss both task and treatment groups utilizing an ecosystems developmental framework. Pay special attention to understanding, affirming, and respecting groups with diverse backgrounds, including (but not limited to) race, ethnicity, culture, class, gender, sexual orientation, religion, physical or mental ability, age, and national origin. Explore social work group facilitation using empirically-based theories and interventions to achieve client goals. Three lecture hours a week for one semester. Prerequisite: Social Work 327 with a grade of at least C.

### **S W 334. Social Work Practice in Organizations and Communities.**

Restricted to social work majors. Examine the organizational context within which social services are delivered, including how funding, mandate, and organizational arrangements influence service delivery and factors to consider in efforts to modify existing organizational arrangements. Explore the interlocking and complex nature of culture and personal identity, discussing vulnerable populations and examining the factors that contribute to and constitute being at risk. Define, design, and implement strategies for effective practice with persons from diverse backgrounds. Three lecture hours a week for one semester. Prerequisite: Social Work 310, 312, 313, 318, and 325 with a grade of at least C.

### **S W 445. Social Work Applied Practice.**

Restricted to social work majors. Explore the integration of theory and practice to strengthen the relationship between the classroom content and field. Examine the processes common to all social work practice, gender and cultural issues, and their impact on service delivery. Explore issues related to social and economic justice, vulnerable populations, cultural diversity, alleviating social problems, and the enhancement of human well-being. Four lecture hours a week for one semester. Social Work 444 and 445 may not both be counted. Offered on the letter-grade

basis only. Prerequisite: Social Work 323K, 332, and 333 with a grade of at least a C; concurrent enrollment in Social Work 645C; and consent of advisor.

### **S W 645C. Social Work Field Instruction I.**

Restricted to social work majors. Participate in a field practicum to apply knowledge and develop skills of social work practice with educational supervision by faculty and social workers in community agencies. Sixteen laboratory hours a week for one semester. Social Work 640 and 645C may not both be counted. Offered on the pass/fail basis only. Prerequisite: Social Work 323K, 332, and 333 with a grade of at least a C; concurrent enrollment in Social Work 444; and consent of advisor.

### **S W 645D. Social Work Field Instruction II.**

Restricted to social work majors. Continue to apply knowledge and develop skills in social work, building on objectives emphasized in Social Work 645C, with educational supervision by faculty and by social workers in community agencies. Sixteen laboratory hours a week for one semester. Social Work 641 and 645D may not both be counted. Offered on the pass/fail basis only. Prerequisite: Credit or registration for Social Work 645C.

### **S W 350. Special Topics in Generalist Social Work.**

Conference course. May be repeated for credit.

### **S W 355. Topics in Disability Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

### **S W 360K, 460K. Current Social Work Topics.**

Designed to enable each student to undertake intensive study of selected aspects of social work practice. Three or four lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 2: African American Family.** Same as African and African Diaspora Studies 321K and Women's and Gender Studies 340 (Topic 3). Overview of historical and contemporary issues facing African American families and children. Social service delivery to African American families and communities is emphasized. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 321K, Social Work 360K (Topic 2), Women's and Gender Studies 340 (Topic 3).

**Topic 3: Treatment of Substance Use Disorders.**

**Topic 4: Social Work Practice with Abused and Neglected Children and Their Families.** Social Work 360K (Topic: Social Work Practice with Abused and Neglected Children and Their Families) and 360K, 460K (Topic 4) may not both be counted.

**Topic 5: Advanced Topics in Social and Economic Justice.**

**Topic 6: Contemporary Issues in Domestic Violence.** Social Work 360K (Topic: Contemporary Issues in Domestic Violence) and 360K, 460K (Topic 6) may not both be counted.

**Topic 7: International Social Work.** Social Work 360K (Topic: International Social Work) and 360K, 460K (Topic 7) may not both be counted.

**Topic 8: Leadership in the Community.** Must have consent of instructor to register. Social Work 360K (Topic: Leadership in the Community) and 360K, 460K (Topic 8) may not both be counted.

**Topic 9: Loss and Grief: Individual, Family, and Cultural Perspectives.** Social Work 360K (Topic: Loss and Grief: Individual, Family, and Cultural Perspectives) and 360K, 460K (Topic 9) may not both be counted.

**Topic 10: Methods of Play Intervention.** Social Work 360K (Topic: Methods of Play Intervention) and 360K, 460K (Topic 10) may not both be counted.

**Topic 11: Communication Skills in Interdisciplinary Settings.**

**Topic 12: Social Work in the Legal System.** Social Work 360K (Topic: Social Workers in the Legal System) and 360K, 460K (Topic 12) may not both be counted.

**Topic 13: Social Work in the School Setting.** Social Work 360K (Topic: Social Work in the School Setting) and 360K, 460K (Topic 13) may not both be counted.

**Topic 14: Working with Youth Gangs.** Social Work 360K (Topic: Working with Youth Gangs) and 360K, 460K (Topic 14) may not both be counted.

**Topic 16: Roots of Social and Economic Justice: An International Perspective.** Restricted to students in the Social Justice and Social Change: A Critical International Perspective Maymester program. Social Work 360K (Topic: Roots of Social and Economic Justice: An International Perspective) and 360K, 460K (Topic 16) may not both be counted.

**Topic 17: Principles of Recovery and Relapse Prevention.**

**Topic 18: Mental Health Issues in Public Safety.** Designed to provide a basic understanding of mental health intervention and treatment related issues for students planning to work in the field of public safety.

**Topic 19: The Social Construction of Disability.** Focus on the social and cultural context of disability, with an emphasis on how disability is defined and understood at the micro and macro levels. Examine the longstanding social oppression of the disability community, as well as ways to initiate social change. Social Work 360K (Topic: Soc Construction of Disabil) and 360K (Topic 19) may not both be counted.

**Topic 20: Aging and Disability.** An introduction to individuals who are either chronologically older or who may be experiencing functional changes typical of older persons. Identify strategies for support for families, friends, service providers, organizations, and members of the community to improve the lives of older persons. Social Work 360K (Topic: Aging and Disability) and 360K (Topic 20) may not both be counted.

**Topic 21: Juvenile Justice: Systems, Policy, and Practice.** Introduction to the socio-historical context of the juvenile justice system and key micro, mezzo, and macro level issues for social service providers working with juvenile justice system-involved populations. Examine social theories used to explain why youth engage in behaviors deemed "delinquent;" social inequality in the juvenile justice system; juvenile justice system procedures; and practitioner and policy efforts to facilitate positive youth development within the juvenile justice system. Social Work 360K (Topic 15) and 360K (Topic 21) may not both be counted.

**Topic 22: Parenting Interventions for Diverse Populations.** An overview of evidence-based interventions aimed at enhancing parenting across diverse populations. Explore advances and limitations in efforts to support parents in raising healthy and successful children from different backgrounds. Social Work 360K (Topic: Parent Interventions) and 360K (Topic 22) may not both be counted.

**Topic 23: Introduction to Sport Social Work.** Examine social work practice in sporting environments and explore how to assist athletes at all levels of sports. Includes a focus on physical and mental health, parenting, youth, foster care, bereavement, and social services. Social Work 360K (Topic: Intro to Sport) and 360K (Topic: 23) may not both be counted.

**Topic 24: Making Systems Work for People with Disabilities.** Explore an overview of disability policy. Examine the history of the disability rights movement, relevant federal and state legislation, legal and ethical issues, services and supports through federal and state programs, the political economy of disability, and disability culture, advocacy, and leadership issues. Social Work 360K (Topic: Making Sys Work People Dis) and 360K (Topic 24) may not both be counted.

**Topic 25: Women with Disabilities.** Examine the meaning and experience of being female and disabled. Explore the intersection of sex-roles stereotypes, disability stereotypes, and cultural stereotypes. Social Work 360K (Topic: Women with Disabilities) and 360K (Topic 25) may not both be counted.

**Topic 26: Death, Dying, and Practitioner Resilience.** Examine cultural, historical, and theoretical components of death, dying, and resilience in healthcare. Explore communicative, psychological, and sociological approaches to terminally ill patient communication and care. Discuss methods of achieving wellness and resilience in the face of adversity. Social Work 360K (Topic: Death/Dyng/Practner Resilnce) and 360K (Topic 26) may not both be counted.

**Topic 27: Family Support, Self-Determination, and Disability.** Examine strategies for working with and supporting families who have a member with a disability. Explore the use of these strategies by teachers, professionals in the disability field, self-advocates, and families. Social Work 360K (Topic: Fam Support/Self-Determ/Dis) and 360K (Topic 27) may not both be counted.

**Topic 28: Developmental Disabilities and Self-Advocacy.** Explore lifespan issues for individuals with developmental disabilities. Examine the impact of social and cultural values, including attitudes toward children and adults with developmental disabilities, institutionalization, service options, sexuality, forced sterilization, self-advocacy movements, and aging. Social Work 360K (Topic: Dev Disabil & Self-Advocacy) and 360K (Topic 28) may not both be counted.

### **S W 467M. Social Justice and Change: A Critical International Perspective.**

Explore the historical and contemporary contexts of the British welfare state, social work practice, and institutional efforts to address social injustice. Immerse in British culture and explore how the U.K. and the U.S. address pressing social issues. Discuss the rights, responsibilities, and actions of global citizenship in an increasingly global society. Four lecture hours a week for one semester. Social Work 460K (Topic: Roots of Social Economics Justice) and 467M may not be counted. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

### **S W 679H. Honors Tutorial Course.**

Individual conference course in social work research and writing. The equivalent of three lecture hours a week for two semesters. Prerequisite: Upper-division standing and admission to the Social Work Honors Program.

## **Graduate Courses**

### **S W 381R. Human Behavior and the Social Environment.**

Focuses on empirically based theories and conceptual approaches that form the foundation for social work practice and research with individuals and families in social systems. Three lecture hours a week for one semester. Prerequisite: Graduate standing in social work, or graduate standing and consent of instructor or the graduate adviser.

### **S W 381S. Foundations of Social Justice: Values, Diversity, Power, and Oppression.**

History, demographics, and cultures of various populations at risk with an emphasis on self-awareness and understanding the impact of discrimination and oppression by individuals and society on people of diverse backgrounds, abilities, and orientations. Three lecture hours a week for one semester. Prerequisite: Graduate standing in social work, or graduate standing and consent of instructor or the graduate adviser.

### **S W 381T. Dynamics of Organizations and Communities.**

The organizational and community context within which social services are delivered and the influence of funding, mandate, and organizational arrangements on service delivery, with attention given to populations at

risk. Three lecture hours a week for one semester. Prerequisite: Graduate standing in social work, or graduate standing and consent of instructor or the graduate adviser.

### **S W 382R. Social Policy Analysis and Social Problems.**

Historical perspective on the development of social welfare institutions, programs, and policies. Students study methods of current policy analysis and evaluation of social problems. Three lecture hours a week for one semester. Prerequisite: Graduate standing in social work, or graduate standing and consent of instructor or the graduate adviser.

### **S W 083C. Dual MSSW Program with Partner Institutions.**

Social Work study at partner institutions. May not be taken concurrently with another course at the University of Texas at Austin. May be repeated for credit. Prerequisite: Graduate standing and admission to the MSSW/ MDiv dual degree program or MSSW/MPH dual degree program.

### **S W 383R. Social Work Practice I.**

Introduction to social work practice methodology and the professional use of self in generalist practice with individuals, families, groups, organizations, and communities. Three lecture hours a week for one semester. Prerequisite: Graduate standing in social work and concurrent enrollment in Social Work 384R, or graduate standing and consent of instructor or the graduate adviser.

### **S W 383T. Social Work Practice II.**

Students examine, critique, select, and apply social work micro, mezzo, and macro theories and methods in advanced clinical and community practice. Three lecture hours a week for one semester. Prerequisite: Graduate standing in social work and concurrent enrollment in Social Work 384S, or graduate standing and consent of instructor or the graduate adviser.

### **S W 384R. Field Instruction I.**

Practice course based on supervised assignments designed to develop a social work perspective and skill in working with individuals, families, groups, organizations, and communities. Sixteen to twenty hours a week (a total of at least 240 hours) in field placement and a weekly one-hour integrative seminar in the application of theoretical material to practice problems and to special issues. One lecture hour and sixteen to twenty hours of fieldwork a week for one semester. Social Work 384R and 384S must be taken in consecutive semesters. Prerequisite: Graduate standing in social work and concurrent enrollment in Social Work 383R, or graduate standing and consent of the field director or the graduate adviser.

### **S W 384S. Field Instruction II.**

Continuation of Social Work 384R. Sixteen to twenty hours a week (a total of at least 240 hours) in field placement and a weekly one-hour integrative seminar that emphasizes advanced application of theory to practice and to consideration of special issues. One lecture hour and sixteen to twenty hours of fieldwork a week for one semester. Social Work 384R and 384S must be taken in consecutive semesters. Prerequisite: Graduate standing in social work and concurrent enrollment in Social Work 383T, or graduate standing and consent of the field director or the graduate adviser.

### **S W 385R. Social Work Research Methods.**

Study of the scientific method and the use of research as a tool for professional practice. Three lecture hours a week for one semester. Prerequisite: Graduate standing in social work, or graduate standing and consent of instructor or the graduate adviser.

### **S W 385T. Advanced Integrative Capstone in Social Work Knowledge and Practice.**

Applies knowledge, skills, and theories to values and ethics, diversity, populations at risk, social and economic justice, human behavior and the social environment, social welfare policy, social work practice, research, and field education. Designed to be taken concurrently with Social Work 694R. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **S W 387C. Direct Practice Field Immersion.**

Students work in a professional agency assisting clients. One weekly seminar hour and at least eight hours of fieldwork a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in social work and consent of instructor or the graduate adviser.

### **S W 387R. Topics in Special Issues.**

Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in social work, or graduate standing and consent of instructor or the graduate adviser.

**Topic 1: Loss and Grief: Individual and Family Perspectives.**

**Topic 12: Contemporary Issues in Foster Care and Adoption.**

**Topic 13: Aging and Disability.**

**Topic 14: Family Support, Self-Determination, and Disability.**

**Topic 15: Introduction to Gerontology.**

**Topic 16: Developmental Disabilities and Self-Advocacy.**

**Topic 17: Making Systems Work for People with Disabilities.**

**Topic 18: The Social Construction of Disability.**

**Topic 19: Spirituality in Social Work Practice.**

**Topic 20: Dynamics of Substance Use Disorders.**

**Topic 22: Social Work in the School Setting.**

**Topic 23: Social Work Practice with Older Adults.**

**Topic 24: Constitutional Law for Social Workers.**

**Topic 25: Social Work in the Legal System.**

**Topic 26: Spanish for Social Workers.** Additional prerequisite: Demonstrated proficiency in Spanish.

**Topic 27: Women with Disabilities.**

**Topic 28: Health and Psychosocial Factors.**

**Topic 30: Contemporary Practice with Older Adults.**

**Topic 31: Kinship Care: Children and Family Systems.**

**Topic 32: Psychosocial Oncology Practice and Research.**

**Topic 33: Child and Adult Attachment in Clinical Practice.**

**Topic 34: Introduction to Sport Social Work.** Social Work 387 (Topic 34) and 395K (Intro to Sport Social Work) may not both be counted.

**Topic 35: Ethical Dilemmas in Social Work Practice.**

**Topic 36: Social Work in Health Care.**

**Topic 38: Social Work with Military Personnel and Families.** Social Work 387R (Topic 37) and 387R (Topic 38) may not both be counted.

**Topic 39: Parenting Interventions for Diverse Populations.**

**Topic 40: Mindfulness and Social Work Practice.**

**Topic 42: Meaning Making and Resilience in Illness and Suffering.**

**Topic 43: Women's Health Policy.** Social Work 387R (Topic 43) and 395K (Topic: Women's Health Policy) may not both be counted.

### **S W 387T. Transformative Teams in Health Care.**

Social Work 387R (Topic 41) and 387T may not both be counted. Offered on the credit/no credit basis only.

### **S W 388R. Seminar: Advanced Research in Social Work.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in social work and consent of instructor and the graduate adviser.

**Topic 1: Research Methods I.** Introduction to the basic elements of quantitative and qualitative research design in the social sciences with particular attention to social work research.

**Topic 2: Research Methods II.** Designed to provide students with the knowledge and competence needed to successfully design, conduct and publish quantitative studies in peer-reviewed journals. Designed to be concrete and to use a "hands-on" approach to gaining mastery over the technical, narrative, and strategic elements of conducting original research with quantitative data.

**Topic 3: Research Methods III.** Introduction to qualitative research methodologies, paradigms, epistemologies, and theories. Qualitative methods of inquiry, including research designs, specific data collection methods, and analytic and interpretive procedures. Discussion of several approaches to qualitative data collection and analysis. Required of all doctoral students in social work.

**Topic 5: Structural Equation Modeling.** Restricted to doctoral students. Introduction to the basic concepts and applications of Structural Equation Modeling (SEM) using the AMOS program. Explores conducting factor analysis, testing causal structures, testing model structure invariance and mean invariance through multigroup analyses, and examining change over time with growth curve modeling. Social Work 388R (Topic 5) and 395K (Topic: Structural Equation Modeling) may not both be counted. Additional prerequisite: For non-social work majors, graduate standing and consent of instructor.

**Topic 8: Advanced Qualitative Data Analysis.** Restricted to doctoral students. An elective course for doctoral students who want additional training in qualitative methods. Focus on the epistemological and practical issues of analyzing qualitative data and writing up the results. Students must have access to pre-collected data for analysis or consult with instructor about a suitable project. May be used to fulfill the advanced research or statistical methods elective requirement. Additional prerequisite: Consent of instructor.

**Topic 9: Secondary Data Analysis.** Restricted to doctoral students. Introduction to the advantages and challenges of working with secondary data, involving hands on experience with the preparation and data analysis of large data sets. Subjects include the basics of Confirmatory Factor Analysis, Structural Equation Modeling, and Multi-group analyses using AMOS software. Three lecture hours a week for one semester, with additional hours to be arranged. May be counted toward advanced research or statistical methods course or elective. Additional prerequisite: Graduate standing, Social Work 388R (Topic 6), and 388R (Topic 7).

**Topic 10: Quantitative Data Analysis I.** Introduction to fundamental concepts and statistical procedures used in social work research. Focus on computer applications for data analysis and development of basic skills in data file construction, management, and statistical analysis. Primary focus is on developing a conceptual and mathematical understanding of statistics needed for advanced work in research design, model development, model fitting and estimation, hypothesis testing, multivariate techniques, and interpretation of data. Social Work 388R (Topic 6) and 388R (Topic 10) may not both be counted.

**Topic 11: Quantitative Data Analysis II.** Builds on the concepts and procedures introduced in Social Work (Topic 10). Designed to enable students to do a more thorough job of data analysis by introducing multivariate statistical procedures into their repertoire of statistical techniques. The primary focus is on using the SPSS statistical package for calculating multivariate statistics, and the utilization of the statistical output in research findings. Social Work 388R (Topic 7) and 388R (Topic 11) may not both be counted.

**Topic 12: Hierarchical Linear Modeling.** Restricted to doctoral students. Provides an introduction to the basic concepts and applications of Hierarchical Linear Modeling (HLM). Subjects will include multilevel data structures, model building and testing, fixed

and random effects, and interpretation of results. Social Work 388R (Topic 12) and 395K (Topic: Hierarchical Linear Modeling) may not both be counted. Additional prerequisite: Regression analysis using SAS; a pre-test to demonstrate SAS knowledge may be required; and for non-social work majors, graduate standing and consent of instructor.

**Topic 13: Grant Writing For Prevention and Clinical Intervention Research.** Restricted to doctoral students. Explore principles of grant writing with special focus on standards expected by leading federal funding agencies, e.g. National Institutes of Health. Conceptualize grant proposals according to social justice principles with the goal of benefiting under-served populations. Produce an exploratory/developmental grant proposal with an explicit focus on prevention or clinical intervention. Additional prerequisite: Social Work majors must have completed their comprehensive exam paper. For non-social work majors, graduate standing and consent of instructor.

**Topic 14: Research Methods in Minoritized Populations.** Restricted to doctoral students in Steve Hicks School of Social Work. Examine scholarly discourse with respect to social science research methods that include race, ethnicity, and other minoritized identities as variables, or that is conducted in and with minoritized communities. Three lecture hours a week for one semester. Additional prerequisite: Social Work 388R (Topic 1).

### **S W 390N. Seminar: Strategies of Intervention.**

A critical evaluation of social work intervention strategies in human services, using alternative theoretical perspectives. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in social work, or graduate standing and consent of instructor and the graduate adviser.

**Topic 2: Theories of Social Work Practice.** Conceptualization, development, and application of social work theories and major theoretical paradigms are covered. Examination of philosophical, theoretical, and empirical underpinnings of different social work practice theories with an emphasis on understanding and critically analyzing the philosophical assumptions and scientific basis of various theories. Explores the historical context of different theories covered and research on their effectiveness within social work. Discussion of major theories from diverse disciplines.

### **S W 392R. Topics in Social Welfare Policy Analysis.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in social work, or graduate standing and consent of instructor or the graduate adviser.

**Topic 1: Integrated Health Care Policy.**

**Topic 2: Children and Families.**

**Topic 3: Poverty and Public Policy.**

**Topic 4: Social Policy for the Aging Population.**

**Topic 5: Social Determinants of Health and Health Policy.**

### **S W 393R. Topics in Advanced Clinical Practice.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in social work, or graduate standing and consent of instructor or the graduate adviser.

**Topic 1: Clinical Assessment and Differential Diagnosis.**

**Topic 3: Theories and Methods of Family Intervention.**

**Topic 9: Assessment and Treatment of Traumatized Populations.**

**Topic 11: Clinical Intervention with Intergenerational Families Giving Care.**

**Topic 13: Cognitive-Behavioral Therapy.**

**Topic 14: Counseling African American Individuals, Couples, and Families.**

**Topic 15: Couples Counseling.**

**Topic 16: Coexisting Psychiatric and Substance Use Disorders.**

**Topic 18: Grief Counseling.**

**Topic 20: Methods of Play Intervention.**

**Topic 21: Motivational Interviewing.**

**Topic 22: Neurobiology and Social Work Practice.**

**Topic 23: Treatment of Substance Use Disorders.**

**Topic 24: Treatment of Children and Adolescents.**

**Topic 26: Theories and Methods of Group Intervention.**

**Topic 29: Crisis Intervention.**

**Topic 30: Solution-Focused Brief Therapy.**

**Topic 31: Neurodevelopment and Trauma.**

### **S W 393T. Topics in Advanced Macro Practice.**

The equivalent of three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in social work, or graduate standing and consent of instructor or the graduate adviser.

**Topic 8: Community Engagement and Management of Volunteers.**

**Topic 9: Community Organizing and Social Change.**

**Topic 11: International Social Work.**

**Topic 14: Psychiatric Disabilities: From the Inside Out.**

**Topic 16: Social Work Leadership in Human Service Systems.**

**Topic 17: Human Resource Development.**

**Topic 18: Nonprofit Management in Human Services.**

**Topic 19: Strategic Partnerships.**

**Topic 20: Information Systems and Communication in Social Work.**

**Topic 22: Community Building.**

**Topic 23: Advanced Policy Practice.**

**Topic 25: Social Change and Community Practice.**

**Topic 26: Cross-Disciplinary Global Project Development in the United States and Abroad.**

**Topic 28: Program Evaluation.** Social Work 393T (Topic 27) and 393T (Topic 28) may not both be counted.

**Topic 29: Financial Management in Human Services.** Social Work 393T (Topic 29) and 395K (Topic: Financial Management/Strategy) may not both be counted.

**Topic 30: Grant Writing and Resource Development.** Social Work 393T (Topic 10) and 393T (Topic 30) may not both be counted.

### **S W 393U. Topics in Social Justice and Populations at Risk.**

Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in social work, or graduate standing and consent of instructor or the graduate adviser.

**Topic 1: Social Work Practice with Abused and Neglected Children and Their Families.**

**Topic 3: Working with Youth Gangs.**

**Topic 4: Social Work Practice with African American Families.**

**Topic 5: Social Work Practice with Mexican American Families.**

**Topic 10: Women and Substance Use Disorders: Contemporary Issues.**

**Topic 16: Assessment and Treatment of Juvenile Offenders.**

**Topic 17: Gays and Lesbians in American Society: Policy and Practice.**

**Topic 18: Restorative Justice.**

**Topic 20: Cultural Factors in Substance Use Treatment for Underserved Populations.**

**Topic 21: Social Work Practice with Asian American Families.**

**Topic 22: Contemporary Issues in Domestic Violence.**

**Topic 23: Contemporary Issues and Practice in Sexual Assault.**

**Topic 24: Advanced Issues in Social and Economic Justice.**

**Topic 25: Historical Cultural Trauma.**

**Topic 26: Youth, Delinquency, and Juvenile Justice.**

**Topic 27: Social Inequalities in Health.**

**Topic 28: Social Work and the Latino Population.**

**Topic 30: Culturally Sensitive Service Provision with Latino Populations.** Social Work 393U (Topic 29) and 393U (Topic 30) may not both be counted.

**Topic 31: Global Health.** Social Work 393U (Topic 31) and 395K (Topic: Global Health-Mex) may not both be counted.

**Topic 32: Communication Skills in Interdisciplinary Settings.**

**Topic 33: Community Participatory Research on Health Disparities.**

### **S W 393V. Topics in Social Work in Specific Settings.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor or the graduate adviser.

### **S W 694R. Advanced Field Instruction.**

Supervised practicum, building on Social Work 384R and 384S, in the continued application of theory to practice at an advanced level within the student's chosen concentration. Designed to be taken concurrently with Social Work 385T. Social Work 694R and 394S can be taken concurrently in one semester to provide thirty-six hours of work a week (a total of at least 540 hours in one semester) in a social work agency or organization, or they can be taken over two semesters to provide sixteen to twenty hours of work a week (a total of at least 540 hours in two semesters) in the same agency. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in social work, consent of field director, and consent of graduate adviser.

### **S W 394S. Advanced Field Instruction.**

Supervised practicum, building on Social Work 384R and 384S, in the continued application of theory to practice at an advanced level within the student's chosen concentration. Social Work 694R and 394S can be taken concurrently in one semester to provide thirty-six hours of work a week (a total of at least 540 hours in one semester) in a social work agency or organization, or they can be taken over two semesters to provide sixteen to twenty hours of work a week (a total of at least 540 hours in two semesters) in the same agency. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in social work, consent of field director, and consent of graduate adviser.

### **S W 395J, 695J, 995J. Research in Social Work.**

Restricted to students in School of Social Work. Individually supervised development of the comprehensive research paper. For each semester hour earned, the equivalent of one class hour a week for one semester. May be repeated seven times. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and 41 semester hours of PhD coursework in social work. Students must sign up in the Office of the Graduate Coordinator for Doctoral Education prior to registering.

### **S W 195K, 295K, 395K, 495K. Conference Course in Social Work.**

Introduction to the diversity of topics and methods pursued by researchers and academicians in social work education and allied fields. Topics covered are broad and include information that facilitates the learning of research methods and the development of knowledge and skills needed to participate in the PhD program and within a community of scholars. Conference course. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor or the graduate adviser.

### **S W 395L. Research Practicum.**

Individually supervised research experience. Individual instruction. May be counted towards the advanced research or statistical methods requirement. Prerequisite: Graduate standing.

### **S W 195Q. Colloquium on Issues in Social Work Education and Research.**

Restricted to doctoral students in social work. Exposure to the diversity of research topics and methods pursued by researchers and academicians in social work education and allied fields. Conference course. May be taken twice for credit. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the instructor or the graduate adviser.

### **S W 395S. Area of Specialization Course.**

Designed to help students demonstrate knowledge in the substantive issues, key research questions, theory, empirical evidence, and implications in their area of specialization. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **S W 395W. Writing Practicum.**

Individually supervised development of publishable written material. Individual instruction. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of instructor.

### **S W 497M. Social Justice and Change: A Critical International Perspective.**

Explore the historical and contemporary contexts of the British welfare state, social work practice, and institutional efforts to address social injustice. Immerse in British culture and explore how the U.K. and the U.S. address pressing social issues. Discuss the rights, responsibilities, and actions of global citizenship in an increasingly global society. The equivalent of four lecture hours a week for one semester. Social Work 495K (Topic: Roots of Socl/Econ Justice) and Social Work 497M may not both be counted Prerequisite: Consent of instructor.

### **S W 398T. Pedagogy in Social Work.**

Focus on social work curriculum and teaching and on educational policies and accreditation standards that inform curricular structure and content. Attends to course content and development, teaching techniques, and classroom management, emphasizing building skills as well as deepening conceptual understandings of pedagogical theory and practice. Students must complete this course before they may be appointed as assistant instructors in the School of Social Work. Three lecture hours a week for one semester. Prerequisite: Graduate standing in social work and consent of instructor or the graduate adviser.

### **S W 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

## **Sociology Courses**

### **Sociology: SOC**

#### **Lower-Division Courses**

#### **SOC 302 (TCCN: SOCI 1301). Introduction to the Study of Society.**

The nature of human societies, social processes, social interaction, and the sociological approach. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

#### **SOC 302P. Physical Activity and Society.**

Same as Health and Society 310P. Explores the way in which people are physically active in a social context - primarily in the United States. Examines how social forces influence physical activity including cultural, economic, historical, and demographic considerations. Examines

physical activity on both the individual and population levels to better understand benefits and barriers to activity through the social context. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 302P, 304 (Topic: Physical Activity and Society), Health and Society 310P.

#### **SOC 304. Introductory Topics in Sociology.**

A sociological perspective of contemporary social subjects. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **SOC 307C (TCCN: SOCI 2301). American Families Past and Present.**

Examines trends over time in specific aspects of family life, including marriage, cohabitation, mate selection, divorce, parenthood, family structure, and work-family balance. Study of the methods that sociologists and demographers use to study the family. Three lecture hours a week for one semester. Sociology 307C and 308 (Topic: American Families Past and Present) may not both be counted.

#### **SOC 307D. Capital Punishment in America.**

Uses various historical, legal and social perspectives to examine the shifting rationales and nature of contemporary United States death penalty debates: public opinion; racial disparities and the historical legacy of lynching; United States Supreme Court decisions; the death penalty's efficacy as a criminal punishment, its personal impacts, and contemporary problems with its current application. Three lecture hours a week for one semester. Sociology 307D and 308 (Topic: Capital Punishment in America) may not both be counted.

#### **SOC 307E (TCCN: SOCI 1306). Contemporary United States Social Problems.**

Examines contemporary social issues confronting the United States, using sociological concepts and perspectives to analyze the nation's most pressing social problems, ranging from social inequality to crime, terrorism and war, and environmental degradation. Three lecture hours a week for one semester. Sociology 307E and 308 (Topic: Contemporary United States Social Problems) may not both be counted.

#### **SOC 307F. Diversity in American Families.**

Same as Women's and Gender Studies 301 (Topic 19). Examination of the diversity of American families and current debates on family life from a sociological perspective with an emphasis on how diverse family forms came to exist and what these changes mean for adults and children in contemporary society. Study of recent trends in several aspects of family life, including dating and courtship, cohabitation, marriage, divorce, parenthood, family structure, and work-family balance. Overview of theoretical perspectives on family life with a focus on gender, race/ethnicity, and sexuality. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Diversity in American Families), Sociology 307F, 308 (Topic: Diversity in American Families), Women's and Gender Studies 301 (Topic: Diversity in American Families), 301 (Topic 19).

#### **SOC 307G. Culture and Society in the United States.**

Introduction to theoretical perspectives, methodological issues, and empirical work in the sociological study of culture. Examination of sociological accounts of the production, reproduction, and reception of culture, with an emphasis on a critical understanding of culture in relation to other sociological phenomena such as power, inequality, and identities. Three lecture hours a week for one semester. Sociology 307G and 308 (Topic: Culture and Society in the United States) may not both be counted.

#### **SOC 307J. Education and Society.**

Further study of the ways that schooling shapes the opportunities available to children and youth, and how educational attainment influences the lives and well-being of adults. Subjects include historical development and organization of the American educational system; factors that shape achievement and learning; differential access to educational opportunities along race, class, and gender lines; and the effects of educational stratification. Three lecture hours a week for one semester. Sociology 307J and 308 (Topic: Education and Society) may not both be counted.

#### **SOC 307K. Fertility and Reproduction.**

Same as Women's and Gender Studies 301 (Topic 20). Explores the when, why, how, and with whom Americans bear children, and how the United States compares to other developed and developing countries in the world. Subjects include infertility and its treatments, the ethics of surrogacy and international adoption, voluntary childlessness, the rapid rise of nonmarital childbearing in the United States and other countries, the politics of childbirth, the risks of maternal morbidity and mortality in developed and developing countries, and the declining populations and rapid aging of rich countries including Japan, Italy, and Spain where many women have stopped having children. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 307K, 308 (Topic: Fertility and Reproduction), Women's and Gender Studies 301 (Topic: Fertility and Reproduction), 301 (Topic 20).

#### **SOC 307L. Gender, Race, and Class in American Society.**

Same as Women's and Gender Studies 301 (Topic 21). Use of the sociological perspective to analyze how the structure of American society, individual life, and group life chances are shaped by broader structures of privilege and disadvantage based on gender, race, and class. Examination of these in institutional arenas such as work, the family, education, health, the criminal justice system, sexuality, popular culture, and more. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 307L, 308 (Topic: Gender, Race, and Class in American Society), Women's and Gender Studies 301 (Topic: Gender, Race, and Class in American Society), 301 (Topic 21).

#### **SOC 307N. Sociology of Development.**

Introduction to major concepts and theories in the sociology of development, with a focus on problems of inequality in wealth and well-being from a global, comparative, and historical perspective. Three lecture hours a week for one semester. Sociology 307N and 308 (Topic: Introduction to the Sociology of Development) may not both be counted.

#### **SOC 307P. Introduction to the Sociology of Health and Well-Being.**

Examination of the social causes and context of illness, death, longevity, and health care today in the United States. Subjects include historical perspectives on health and mortality, social class, race/ethnicity, gender, religious involvement, marital status, family, age, and psychosocial factors. Emphasis on the tension between individualistic and public health perspectives on illness. Three lecture hours a week for one semester. Sociology 307P and 308 (Topic: Introduction to the Sociology of Health and Well-Being) may not both be counted.

#### **SOC 307Q. Environmental Inequality and Health.**

Examines the social roots and impacts of environmental contamination and natural disasters, with particular focus on how environmental health inequalities are linked to race, class, gender, and nation, and how residents of areas prone to environmental risks respond to hazards. Three lecture hours a week for one semester. Sociology 304 (Topic: Environmental Inequality and Health) and Sociology 307Q may not both be counted.

### **SOC 307S. Judaism and Christianity in Sociological Perspective.**

Study of Christianity's historic roots in Judaism, the texts that Jews and Christians share, what Jews believe, how and why the two faiths diverged and evolved, how institutionalized Christianity addresses its Jewish origins, and the relationship between Jews and Christians throughout history. Focus on the social, historical, and intellectual contexts and forces which have shaped these processes up to the present day, as well as religious evolution of how systems and ways of thought and action change, why, and how Christians and Jews have dealt with such changes. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 304 (Topic: Judaism and Christianity in Sociological Perspective), Sociology 307S, 308 (Topic: Judaism and Christianity in Sociological Perspective), Western Civilization 303 (Topic: Judaism and Christianity in Sociological Perspective).

### **SOC 307T. Punishment and Society.**

Focus on society's responses to crime. Introduction to the sociology of punishment and the death penalty, the American model of criminal punishment, and contextualization of the United States system and critical analysis of penal systems in general. Special emphasis on the nature of penal control in contemporary America. Three lecture hours a week for one semester. Sociology 307T and 308 (Topic: Punishment and Society) may not both be counted.

### **SOC 308D. Ethnicity and Gender: La Chicana.**

Same as Mexican American Studies 311 and Women's and Gender Studies 301 (Topic 6). Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 311, 319 (Topic 1), Sociology 308 (Topic: Ethnicity and Gender: La Chicana), 308D, Women's and Gender Studies 301 (Topic 6).

### **SOC 308E. Race, Ethnicity, and Gender in Demography.**

Same as Women's and Gender Studies 301 (Topic 22). Introduction to the patterns, trends and debates on race, ethnicity, and gender in demography. Study of the social aspect of demography and the relationship of demographic phenomena relative to racial, ethnic, and gender populations. Specific areas will include the following: conceptual/measurement issues; migration and population dynamics; health and morality; and family and fertility. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Race, Ethnicity, and Gender in Demography), 308E, Women's and Gender Studies 301 (Topic 22).

### **SOC 308F. Religion and Gender in America.**

Same as Women's and Gender Studies 301 (Topic 18). Examines the complex relationship between religious involvement and gender and sexuality in American society with a focus on the historic relationship between religious engagement and women's movements as well as more contemporary issues. Exploration of several major religious traditions in the United States today, including Evangelical Christianity, Catholicism, and Judaism. Examination of smaller religious groups and their attempt to confront the complex and contradictory relationship between gender roles and belief. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Religion and Gender in America), 308F, Women's and Gender Studies 301 (Topic 18).

### **SOC 308G. The Rich and the Poor in America: Sociological Perspective.**

Review of classical and contemporary theories of inequality and stratification; examination of recent ethnographic accounts of experiences of the rich and poor in United States society. Development of critical thinking about social class in contemporary society, and study of how one's own experiences are both the products and producers

of larger stratification systems. Three lecture hours a week for one semester. Sociology 308 (Topic: Rich and Poor in America) and 308G may not both be counted.

### **SOC 308J. Romantic Relationships and Family Formation.**

Same as Women's and Gender Studies 301 (Topic 23). Examination of romantic relationships and family formation from a cultural framework. Subjects include: historical transformations of romance; socioeconomic perspectives on sexual relationships and family formation; the impact of demographic transitions on the emergence of cohabitation as a relationship form; the economics undergirding relationship decision making; common narratives, practices, and gender differences about entry into marriage in the West; and population-level implications of contemporary patterns. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Romantic Relationships and Family Formation), 308J, Women's and Gender Studies 301 (Topic 23).

### **SOC 308K. Social Change and the Future.**

Study of the effects of conflict on society, culture, technology, and economy practices through comparative analysis and historical dimension with a focus on institutions responsible for managing and handling conflict such as warfare and the military. Conflict-related issues include social institutions, gender identities and roles, economy, health issues, technological changes, collective memory, and culture. Three lecture hours a week for one semester. Sociology 308 (Topic: Social Change and the Future) and 308K may not both be counted.

### **SOC 308L. Social Transformation of Love and Relationships.**

Same as Middle Eastern Studies 310 (Topic 4). Examination of the social, psychological, and spiritual perspectives toward the ideas of love and intimacy; how love and intimacy interact with rapid social, economic, and cultural change; and how the subsequent change transformed the social world and the meaning of love. Subjects include the aspects of self and identity; differentiation in the context of love in the modern age; the family and the individual; the impact of industrialization on private lives and the public order; gender, communication, love; intercultural love and intimacy; and personal choice and arranged marriages. Three lecture hours a week for one semester. Only one of the following may be counted: Middle Eastern Studies 310 (Topic: Social Transformation of Love and Relationships), 310 (Topic 4), Sociology 308 (Topic: Social Transformation of Love and Relationships), 308L.

### **SOC 308M. Sociology of Identity.**

Examination of the ways that identities are socially produced and the study of how that social construction results in power and privilege for some groups at the expense of others. Three lecture hours a week for one semester. Sociology 308 (Topic: Sociology of Identity) and 308M may not both be counted.

### **SOC 308N. Comparative Religion, Politics, and Culture.**

Investigation of the relationship between religion and politics through the central concept of culture. Subjects include religion as a form of culture and its effect on political life, the impact of the local culture of a society on religion and politics, and how historical conditions affect the religion-culture-politics relationship. Three lecture hours a week for one semester. Sociology 308 (Topic: Comparative Religion, Politics, and Culture) and 308N may not both be counted.

### **SOC 308S. Introduction to Health and Society.**

Same as Health and Society 301. A broad, multidisciplinary overview that introduces students to the study of health and society. Three lecture hours a week for one semester. Only one of the following may be

counted: Health and Society 301, Sociology 308 (Topic: Introduction to Health and Society), 308S.

### **SOC 309. Chicanos in American Society.**

Same as Mexican American Studies 310. Introduction to the study of American character and its bearing on the Chicano experience. Three lecture hours a week for one semester.

### **SOC 309C. Creating the Sustainable Society.**

Same as Geography 309C. Overview of sustainability as something human beings must strive to create in an era of global warming and ever greater social inequalities, both between and within countries. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 302P (Topic: Creating Sustainable Societies), 309C, Sociology 304 (Topic: Creating Sustainable Societies), 309C.

### **SOC 310S. Women's Reproductive Health for Nonscience Majors.**

Same as Nursing 307 (Topic 1) and Women's and Gender Studies 301 (Topic 7). Overview of contemporary women's reproductive health issues, with emphasis on historical, physiological, psychosocial, and cultural influences that affect the reproductive health of women during adolescence, the childbearing years, and midlife. Three lecture hours a week for one semester. Only one of the following may be counted: Nursing 307 (Topic 1), Sociology 308 (Topic 2), 310S, Women's and Gender Studies 301 (Topic 7). Prerequisite: One year of high school biology, or Biology 301L or 309D.

### **SOC 311C. Social Determinants of Health.**

Considers the social factors that influence health and longevity, including sex/gender, race and ethnicity, socioeconomic status, and social integration. Examines the link between social position and health patterns in the United States. Three lecture hours a week for one semester. Sociology 308 (Topic: Social Determinants of Health) and 311C may not both be counted.

### **SOC 312S. Society, Health, and Happiness.**

Examine the scientific study of happiness, integrating findings from a variety of fields, including psychology, sociology, neuroscience, and economics. Includes the nature and measurement of happiness, the bidirectional relationship between physical health and happiness, the social or collective dimensions of happiness, and the role of various institutions and the well-being of society. Three lecture hours a week for one semester. Sociology 304 (Topic: Society, Health & Happiness) and 312S may not both be counted.

### **SOC 313K. Introduction to the Sociology of Religion.**

Introduction to sociological methods in the study of religion. Three lecture hours a week for one semester. Religious Studies 310 and Sociology 313K may not both be counted.

### **SOC 317L. Introduction to Social Statistics.**

Measures of central tendency and dispersion, the binomial and chi-square distributions, tests of hypotheses and parameter estimation, and simple correlation and regression. Three lecture hours and one laboratory hour a week for one semester. Required of all sociology majors.

### **SOC 318. Juvenile Delinquency.**

Environments in which juvenile delinquency develops; delinquent subcultures and peer groups; societal reactions in schools, courts, and other agencies. Three lecture hours a week for one semester.

### **SOC 319. Introduction to Social Demography.**

Social consequences of changes in fertility, mortality, migration, population growth and composition. Three lecture hours a week for one semester.

### **SOC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Sociology.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Sociology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **SOC 320C. Cancerland.**

Same as Health and Society 340 (Topic 6). Explores the social and cultural terrain of cancer research, treatment, and public policy in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Health and Society 340 (Topic 6), Sociology 320C, 321K (Topic: Cancerland). Prerequisite: Upper-division standing.

### **SOC 320K. Political Sociology.**

Same as Government 355P. A survey of approaches to the study of the state as a social structure; political power and power systems; ideology; political parties and elites. Three lecture hours a week for one semester. Only one of the following may be counted: Government 355M (Topic: Political Sociology), 355P, Sociology 320K. Prerequisite: Upper-division standing.

### **SOC 320T. Qualitative Methods for Social Research.**

Same as Geography 329K and Latin American Studies 322P. Explore hands-on training in qualitative methods used in mixed methods research in contemporary social science. Examine the application and use of case studies; archival analysis; content analysis; participant observation and ethnography; key informant ("elite") interviewing; focus groups; social psychological testing; and how to design and run surveys. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 329K, Latin American Studies 322P, Sociology 320T, 321K (Topic: Qualitv Mthds in Socl Rsrch). Prerequisite: Upper-division standing.

### **SOC 321C. Consumption in Latin America.**

Same as Latin American Studies 325 (Topic 5). Study of the role consumption plays in social, economic, and political relations in Latin America, as well as contesting ideas about this role. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 325 (Topic: Consumption in Latin America), Latin American Studies 325 (Topic 5), Sociology 321C, Sociology 321K (Topic: Consumption in Latin America). Prerequisite: Upper-division standing.

### **SOC 321D. Demography of Crime and Punishment.**

Intensive seminar exploring data sources and conceptual and measurement issues surrounding the study of racial and ethnic differences in crime and punishment, with a particular focus on how the distinct neighborhood and school contexts in which different racial and ethnic groups participate explain variations in criminal outcomes. Special emphasis on the role of the criminal justice system in producing and eliminating disparities in criminal justice outcomes. Three lecture hours a week for one semester. Sociology 321D and 321K (Topic: Demography of Crime and Punishment) may not both be counted. Prerequisite: Upper-division standing.

**SOC 321E. Economy, Culture, and Society.**

Introduction to sociological research and theories of culture and the economy, with a special focus on gift giving. Study of gift giving behaviors will explore the core issues of sociology: social organization and social structure, social norms, the relationship between individual and society, the nature of economic and noneconomic exchange, reciprocity, obligation, cultural meanings, and power, among others. Three lecture hours a week for one semester. Sociology 321E and 321K (Topic: Economy, Culture, and Society) may not both be counted. Prerequisite: Upper-division standing.

**SOC 321F. Fundraising and Philanthropy.**

Introduction to theories of the nonprofit sector and individual pro-social motivations and behavior, while also covering basic principles and techniques of fundraising. Receive practical instruction from fundraising professionals in the local nonprofit community on all aspects of a successful fundraising operation, from building a solid base of annual contributors to cultivating relationships with major gift prospects. Attention will be given to behind-the-scenes activities required to have a successful development program, including appropriate donor stewardship, prospect research, database maintenance, and donor analytics. Three lecture hours a week for one semester. Sociology 321F and 321K (Topic: Effective Philanthropy) may not both be counted. Prerequisite: Upper-division standing.

**SOC 321G. Global Health Issues and Health Systems.**

Overview of current global health challenges and issues from biological, cultural, and environmental perspectives. Examination, comparison, and contrasting of various health systems in the six World Health Organization geographic regions and countries within those regions, with regard to the specific health challenges they face. Three lecture hours a week for one semester. Sociology 321G and 321K (Topic: Global Health Issues and Health Systems) may not both be counted. Prerequisite: Upper-division standing.

**SOC 321K. Contemporary Issues in Sociology: Special Topics.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**SOC 321L. Sociology of Education.**

Same as African and African Diaspora Studies 321L and Women's and Gender Studies 345 (Topic 23). Education as a societal institution, with emphasis on the United States educational system: how the system works; the effects of the system; recent changes. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 321L, Sociology 321L, Women's and Gender Studies 345 (Topic 23). Prerequisite: Upper-division standing.

**SOC 321P. Politics and Society in Latin America.**

Same as Latin American Studies 325 (Topic 4). Introduction to present-day Latin American politics and society with a focus on drug-trafficking and urban destitution in Brazil; party politics, protest, and collective violence in Argentina; the current political situation in Venezuela; and migration from Central America and the Caribbean to the United States. Also includes a general overview of revolutions and revolutionary movements in Latin America, and the effects of United States intervention in the region during the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 325 (Topic: Politics and Society in Latin America), Latin American Studies 325 (Topic 4), Sociology 321K (Topic: Politics and Society in Latin America), Sociology 321P. Prerequisite: Upper-division standing.

**SOC 321Q. Social Inequality.**

Study of social inequality as the unequal distribution of scarce but commonly desired resources and the processes by which these resources are allocated to individuals and groups. Examination of income and wealth inequality, occupational and class hierarchies, inequality of educational opportunity, poverty, social mobility between and within generations, gender and racial/ethnic inequality, and the consequences of inequality. Overview of the concepts, theories, facts, and methods of analysis used by sociologists to understand the social production and reproduction of inequality. Three lecture hours a week for one semester. Sociology 321K (Topic: Social Inequality) and 321Q may not both be counted. Prerequisite: Upper-division standing.

**SOC 321R. The Sociology of Race and Work.**

Same as Asian American Studies 330E and Women's and Gender Studies 322F. Critical examination of work in the United States over the twentieth and twenty-first centuries through a gendered, Asian American lens, using a comparative race perspective. Subjects include the sociological examination of concepts such as labor markets, globalization, care work, and gender/racial segregation in the workplace along with the ways race and gender shape how and where individuals are fitted into the workplace, how skills are evaluated, and how labor markets emerge. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 330 (Topic 4), 330E, Sociology 321R, Women's and Gender Studies 322 (Topic 6), 322F. Prerequisite: Upper-division standing.

**SOC 321S. Anti-Semitism.**

Same as History 366N (Topic 15) and Jewish Studies 365 (Topic 13). Surveys trends in Judeophobia/anti-Semitism over 2,500 years in both Christian and non-Christian societies. Designed to use anti-Semitism as way to explore more general ideas in social theory such as boundary making; models of racial, ethnic, and cultural conflict; and the role of intellectual and scientific elites. Three lecture hours a week for one semester. Only one of the following may be counted: History 366N (Topic: Anti-Semitism), 366N (Topic 15), Jewish Studies 365 (Topic: Anti-Semitism), 365 (Topic 13), Sociology 321K (Topic: Anti-Semitism), 321S. Prerequisite: Upper-division standing.

**SOC 321T. Sociology of Africa.**

An introduction to the sociological study of sub-Saharan Africa. Major themes include: sources of knowledge about Africa; characteristics of African states and societies, from origin to internal social boundaries (religion, ethnicity, class); kinship and family; and development and change. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 374C (Topic: Sociology of Africa), Sociology 321K (Topic: Sociology of Africa), 321T. Prerequisite: Upper-division standing.

**SOC 321U. Urban Sociology.**

Same as Urban Studies 321U. Introduction to the study of the city and the suburbs. Specific focus on inequality in urban space, with emphasis on three major United States cities (New York, Chicago, and Los Angeles) and on several third world cities. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Urban Sociology), 321U, Urban Studies 354 (Topic 11), 321U. Prerequisite: Upper-division standing.

**SOC 321V. Environmental Sociology.**

Investigation of the ways human social patterns and ideologies shape the environment, how the environment shapes human lives, and the ways humans and the natural environment interrelate. The city of Austin will be used as a case study to examine the relationship between the natural and built environments (city space). Special emphasis on the process of global warming and its effects on human society and these

relationships. Three lecture hours a week for one semester. Sociology 321K (Topic: Environmental Sociology) and 321V may not both be counted. Prerequisite: Upper-division standing.

### **SOC 322C. Sociology of Creativity.**

Introduction to varying aspects of creative insights, human consciousness, social processes, and the 'invention of reality.' Use of the elements of mindfulness, intuition, and creativity at individual, organizational, societal, and environmental levels, drawing on lectures, group discussions, books, articles, artistic films, and documentaries in order to better understand and appreciate the interconnectedness and interrelationship between 'inner' (personal) reality and 'other' (social) reality. Three lecture hours a week for one semester. Sociology 321K (Topic: Sociology of Creativity) and 322C may not both be counted. Prerequisite: Upper-division standing.

### **SOC 322D. Race and the Digital.**

Same as African and African Diaspora Studies 322D and Women's and Gender Studies 322G. Review of theoretical developments in the sociological study of "race," including an examination of processes of racialization and cultural texts, in order to better understand the ways in which identities are socially produced. Attention will be placed on forms of popular culture, black cultural production, and political action to question how such practices are shaped by migrations within the African diaspora. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 322D, Sociology 322D, Women's and Gender Studies 322 (Topic 7), 322G. Prerequisite: Upper-division standing.

### **SOC 322F. Mental Health in Social Context.**

Examines the social causes of mental health in the areas of social epidemiology of mental health; social and psychological factors in mental health; and treatment for psychological problems. Explores definitions of mental health and mental illness, and how they are measured. Contrasts the social view with the medical, psychiatric, and psychological views and explores social psychological factors in mental health, including perceived control over life, mastery, fatalism, social support, meaning, self-esteem, coping, trust, inequity, commitment, and flexibility. Three lecture hours a week for one semester. Sociology 321K (Topic: Mental Health in Social Context) and 322F may not both be counted. Prerequisite: Upper-division standing.

### **SOC 322G. Politics, Power, and Society.**

Explores the nature and dynamics of political life through classical works in political philosophy, contemporary sociological essays, fiction, and film. Discussion of the relationship between individual rights and state authority; what it means to belong to a group; the nature and dimensions of power and freedom; whether violence is compatible with democracy; and how and when revolutions take place. Three lecture hours a week for one semester. Sociology 321K (Topic: Politics, Power, and Society) and 322G may not both be counted. Prerequisite: Upper-division standing.

### **SOC 322J. Economic Sociology of Health.**

Same as Health and Society 340 (Topic 8). Provides a look at the economics of health and health care through a sociological lens. Examines how the multidimensional nature and distribution of health and healthcare are shaped by a variety of social and economic factors. Gain an understanding of the power of incentives, markets, and cost-benefit analysis, as well as the limits of these tools, in creating effective health care policy. Three lecture hours a week for one semester. Only one of the following may be counted: Health and Society 340 (Topic 8), Sociology 321K (Topic: Economic Sociology of Health), 322J. Prerequisite: Upper-division standing.

### **SOC 322M. Sociology of Masculinities.**

Same as Women's and Gender Studies 322E. Sociological examination of the most important debates and discussions about men's experiences of masculinity in contemporary patriarchal societies. Exploration of social and individual meanings of masculinity, the dominant paradigms of masculinity that are taken as the norm, and the problems, contradictions, and paradoxes men experience in modern society. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 322M, Women's and Gender Studies 322 (Topic 3), 322E. Prerequisite: Upper-division standing, three hours of coursework in sociology, and three hours of coursework in women's and gender studies.

### **SOC 322P. Sex and Violence in Popular Culture.**

Same as Women's and Gender Studies 322K. Overview of the cultural framing of sex and violence through realistic and hyper-realistic representations of sex, love, violence, and war in popular culture. Examination of the ethical implications, including the ways in which these representations rely on and further social inequalities and the sociological concepts, methods, and theoretical approaches to understanding sex and violence in popular culture. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Sex & Violence in Pop Culture), 322P, Women's and Gender Studies 322 (Topic 10), 322K, 345 (Topic: Sex & Violence in Pop Culture). Prerequisite: Upper-division standing.

### **SOC 322S. The Sociology of Sport.**

Examines the place of sport within social theory, with particular emphasis on the understanding of sport and society found in functionalist, Weberian, Marxist, figurational, feminist, and postmodernist accounts. This theoretical framework is used to explore key social issues in sport, including gender and representation, violence and deviancy, commercialization and college sport, race and inequality, and nationalism and identity. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **SOC 322T. Latino Migration and Human Trafficking.**

Same as Latin American Studies 322F and Mexican American Studies 364G. Critically examine the complexity and intersectionality of Latino migration and human trafficking from global, regional, and local perspectives. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 322 (Topic: Latino Migrtn/Human Traffic), 322F, Mexican American Studies 364G, 374 (Topic: Latino Migrtn/Human Traffic), Sociology 321K (Topic: Latino Migrtn/Human Traffic), 322T. Prerequisite: Upper-division standing.

### **SOC 322U. United States Immigration.**

Same as Mexican American Studies 374 (Topic 42). Utilizes a sociological perspective to gain an understanding of what social forces drive migration to the United States, how migrants organize their migration, and how immigration affects United States' society. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 374 (Topic: US Immigration), 374 (Topic 42), Sociology 321K (Topic: US Immigration), or 322U. Prerequisite: Upper-division standing.

### **SOC 322V. Race, Gender, and Surveillance.**

Same as African and African Diaspora Studies 360D, American Studies 321 (Topic 6), and Women's and Gender Studies 322J. Overview of theories in the sociology of social control, with a focus on risk, power, ethics, and surveillance. Examines historical transformations in social control and the distributions of power in the United States and global contexts, with attention to race, gender, and class. Subjects include: the transatlantic slave trade; prisons and punishment; the gaze, voyeurism, and reality television watching; the Internet; travel and state borders; privacy; and biometrics and the body. Three lecture hours a week for one

semester. Only one of the following may be counted: African and African Diaspora Studies 360D, 372C (Topic 12), American Studies 321 (Topic 6), Sociology 322V, Women's and Gender Studies 322 (Topic 8), 322J. Prerequisite: Upper-division standing.

### **SOC 323. The Family.**

Same as Women's and Gender Studies 345 (Topic 2). The American family in historical and comparative perspective. Family history and origins; comparative family systems; social antecedents of family structure and process; family formation and dissolution; family and society; recent family changes and prospects for the future. Three lecture hours a week for one semester. Sociology 323 and Women's and Gender Studies 345 (Topic 2) may not both be counted. Prerequisite: Upper-division standing.

### **SOC 323C. Policing.**

Examines the purposes and structure of policing and the shifting roles and powers of police officers. Focuses on several critical issues in modern-day policing, including the effectiveness of various police strategies as well as their legitimacy. Considers limits on the ability of the police to control crime, and the ways in which individuals and communities work to police themselves. Three lecture hours a week for one semester. Sociology 308 (Topic: Critical Issues in Policing) and 323C may not both be counted. Prerequisite: Upper-division standing.

### **SOC 323D. Border Control and Deaths.**

Same as Mexican American Studies 374 (Topic 41). Focus on enactment of border control policies, policy implementation and death patterns at the United States-Mexico border, patterns of unauthorized border crossings through dangerous border terrain, grassroots movements to support migrants and lessen deaths, and the ethics of coercive border control. Surveys the public sentiments and attitudes that support new border control policies, the patterns of migrant deaths in deserts and in the Rio Grande River associated with border control strategies, movements and community efforts to support migrants in the Arizona border area, and legal and ethical arguments and concepts that frame discussions of migrant deaths at the United States-Mexico border. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 374 (Topic: Border Control/Deaths), 374 (Topic 41), Sociology 321K (Topic: Border Control/Deaths), 323D. Prerequisite: Upper-division standing.

### **SOC 323F. Food and Society.**

Explores the social context of food; including food and identity, social class and culture, as well as who plans, purchases, and prepares food for our families. Food production and policies in the United States and government assistance for the hungry are also covered. Three lecture hours a week for one semester. Sociology 321K (Topic: Food and Society) and 323F may not both be counted. Prerequisite: Upper-division standing.

### **SOC 323M. Sport and English Society.**

Same as European Studies 346 (Topic 6). Restricted to students in the Maymester Abroad Program; contact the University's Study Abroad Office for permission to register for this class. Uses the context of sport to explore the internal divisions around class and region that are central to understanding English identity, particularly the tensions between "the north" and "the south," as well as to discover the origins of American sports such as football and baseball. The equivalent of three lecture hours a week for one semester. Taught in Leeds, England. Only one of the following may be counted: European Studies 346 (Topic: Sport and English Society), 346 (Topic 6), Kinesiology 350, Sociology 321K (Topic: Sport and English Society), 323M. Prerequisite: Upper-division standing.

### **SOC 323S. Building the Sustainable City.**

Same as Urban Studies 323S. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Building the Sustainable City), 323S, Urban Studies 323S, 352 (Topic: Building the Sustainable City), 352 (Topic 7). Prerequisite: Upper-division standing.

### **SOC 324K. Social Change in Developing Nations.**

Overview of changing social structure in the Third World. Three lecture hours a week for one semester. Latin American Studies 325 (Topic 2: Social Change in Developing Nations) and Sociology 324K may not both be counted. Prerequisite: Upper-division standing.

### **SOC 325F. African American Family in Historical and Contemporary Contexts.**

Same as African and African Diaspora Studies 351R and Liberal Arts Honors 351C. Restricted to Plan I majors in the College of Liberal Arts. Examine how African Americans managed to maintain a sense of family from the time of slavery to the present trend of mass incarceration. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372D (Topic: Afr Am Fam: Hist/Contem Cntxt), 351R, Liberal Arts Honors 350 (Topic: Afr Am Fam: Hist/Contem Cntxt), 351C, Sociology 321K (Topic: Afr Am Fam: Hist/Contem Cntxt), 325F. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **SOC 325K. Criminology.**

An investigation into the nature of criminal events, including homicide, rape, robbery, property crimes, and white-collar crimes. Also examines the United States criminal justice system. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **SOC 325L. Sociology of Criminal Justice.**

Same as Urban Studies 325L. Examination of the police, courts, and prisons: how they work, their impact on those who pass through them. Introduction to the American criminal justice system, its policies and procedures. The primary focus will be on the roles and functions of the police, the courts, and corrections, with a special emphasis on how well or not so well the system operates. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 325L, Urban Studies 325L, 354 (Topic 12). Prerequisite: Upper-division standing.

### **SOC 327M. Social Research Methods.**

Collect data to answer research questions by focusing on the meaning of variables, understanding causation, study design, basic sampling, and modes and methods in data collection. Two lecture hours and two lab hours a week for one semester. Sociology 317M and 327M may not both be counted. Prerequisite: Upper-division standing.

### **SOC 329. Social Stratification.**

The types and levels of social inequality; the institutional and group processes that generate inequality; the interplay of social, organizational, economic, and political forces that affect the degree of differential opportunities and rewards in society. Three lecture hours a week for one semester. Prerequisite: Upper-division standing. Completion of Sociology 317L or another statistics course is recommended, but not required.

### **SOC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Sociology.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Sociology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in

residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

### **SOC 330C. Death and Dying: Sociological Perspectives.**

Sociological perspectives on definitions of death; group differences in mortality rates and causes of death; social meanings of death and dying; treatment of the dying and the dead; and grief and bereavement. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **SOC 330P. Sociology and Social Psychology.**

Examines how individuals perceive, interact with, and affect other individuals from the perspectives of both psychology and sociology. Three lecture hours a week for one semester. Sociology 321K (Topic: Sociology and Social Psychology) and 330P may not both be counted. Prerequisite: Upper-division standing.

### **SOC 333K. Sociology of Gender.**

Same as Women's and Gender Studies 322C. Inequality between the sexes; men's and women's changing roles in society. Three lecture hours a week for one semester. Only one of the following can be counted: Sociology 333K, Women's and Gender Studies 322 (Topic 1), 322C. Prerequisite: Upper-division standing.

### **SOC 335. Society of Modern Mexico.**

Same as Latin American Studies 325 (Topic 1) and Urban Studies 338S. Family, community, industrialization, and urbanization in modern Mexico. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 325 (Topic 1), Sociology 335, Urban Studies 338S, 354 (Topic 2). Prerequisite: Upper-division standing.

### **SOC 335R. Reproductive Justice and Race.**

Same as Asian American Studies 330M and Women's and Gender Studies 340 (Topic 78). Examine the links between reproductive care and social inequality, and explore reproductive outcomes for women in the context of social justice. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 330 (Topic: Reproductive Justice & Race), 330M, Sociology 321K (Topic: Reproductive Justice & Race), 355R, Women's and Gender Studies 340 (Topic: Reproductive Justice & Race), 340 (Topic 78). Prerequisite: Upper-division standing.

### **SOC 336C. American Dilemmas.**

Same as Urban Studies 352C and Women's and Gender Studies 345 (Topic 26). Examination of critical American social problems, including problems in the economic, political, and health care systems, as well as inequities based on income, gender, and race. Exploration of how these problems are a natural outgrowth of the existing social structure. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 336C, Urban Studies 352C, 354 (Topic 13), Women's and Gender Studies 345 (Topic 26). Prerequisite: Upper-division standing.

### **SOC 336D. Race, Class, and Health.**

Designed to introduce students to the complex relationships among race, class, gender, and health status. Investigates how health is linked to individual behaviors and to the interaction between people and their social, cultural, and physical environments. Three lecture hours a week for one semester. Sociology 321K (Topic: Race, Class, and Health) and 336D may not both be counted. Prerequisite: Upper-division standing.

### **SOC 336G. Gender Politics in the Islamic World.**

Same as Islamic Studies 373 (Topic 11), Middle Eastern Studies 341 (Topic 7), Religious Studies 358G, and Women's and Gender Studies 340 (Topic 44). Study of the Islamic world and major sociological concepts

such as gender, social organizations, culture, and politics. Examines how culture is mediated by politics, resulting in diverse interpretations of Islam and in different policies with respect to women's rights. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 373 (Topic 11), Middle Eastern Studies 341 (Topic 7), Religious Studies 358 (Topic 8), 358G, Sociology 336G, Women's and Gender Studies 340 (Topic 44). Prerequisite: Upper-division standing.

### **SOC 336P. Social Psychology and the Law.**

How courts make use of social science, as well as how social scientists study the legal system. Considers the uses of social science across multiple types of legal domains, such as eyewitnesses to crime, jury trials, punishment, children in the courts, and a variety of public policy issues. Three lecture hours a week for one semester. Sociology 321K (Topic: Social Psychology and the Law) and 336P may not both be counted. Prerequisite: Upper-division standing.

### **SOC 340C. Globalization.**

Same as European Studies 346 (Topic 7). A sociological analysis of the interrelated economic, political, and cultural aspects of globalization. Examines the consequences of globalization for nations around the world and for groups within these nations. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 346 (Topic: Globalization), 346 (Topic 7), Sociology 321K (Topic: Globalization), 340C. Prerequisite: Upper-division standing.

### **SOC 340D. Violence.**

An overview of the different theories of interpersonal and group violence. Includes criminological theories of violent crime, as well as feuding, ethnic and nationalist violence, political violence, and aggression in intimate relations. Three lecture hours a week for one semester. Sociology 321K (Topic: Violence) and 340D may not both be counted. Prerequisite: Upper-division standing.

### **SOC 340L. Aging and the Life Course.**

The biological, social, and psychological aspects of human aging from adolescence until death, with special emphasis on cultural norms and the social and demographic context in which aging occurs. Includes the challenges and problems of adjustment at each life stage, and the social, political, and economic consequences of increased longevity and changes in the age structure of the populations of modern societies. Three lecture hours a week for one semester. Sociology 321K (Topic: Aging and the Life Course) and 340L may not both be counted. Prerequisite: Upper-division standing.

### **SOC 341C. Medical Sociology.**

Same as Health and Society 340 (Topic 11). Explores the social context of health, illness, and the health care system in American society. Discussion of the processes of medicalization and demedicalization, social factors influencing health and health care, the organization of the health care delivery system and patient outcomes, and the social meaning and experiences of illness. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Medical Sociology), 341C, or Health and Society 340 (Topic 11). Prerequisite: Upper-division standing.

### **SOC 342S. Sex and Sexuality in the Muslim World.**

Same as Islamic Studies 372 (Topic 25), Religious Studies 358J, and Women's and Gender Studies 335 (Topic 20). Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 372 (Topic: Sex/Sexuality Muslim World), 372 (Topic 25), Religious Studies 358 (Topic: Sex/Sexuality Muslim World), 358J, Sociology 321K (Topic: Sex/Sexuality Muslim World), 342S, Women's and

Gender Studies 335 (Topic: Sex/Sexuality Muslim World), 335 (Topic 20). Prerequisite: Upper-division standing.

### **SOC 343. Religion and Society.**

Same as Religious Studies 337. The growth and decline of religious groups and traditions; "cults" and new religions; comparative sociology of religion; the United States religious landscape; religion and individual health and well-being; spirituality and other aspects of social life. Three lecture hours a week for one semester. Religious Studies 337 and Sociology 343 may not both be counted. Prerequisite: Upper-division standing.

### **SOC 344. Racial and Ethnic Relations.**

Contemporary racial and ethnic problems; emphasis on minority groups in the United States. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **SOC 345D. Inequality in the United States Educational System.**

Same as Liberal Arts Honors 350 (Topic 21). Restricted to Plan I majors in the College of Liberal Arts. Examine how inequality has developed and is maintained within the American public education system. Three lecture hours a week for one semester. Only one of the following may be counted: Liberal Arts Honors 350 (Topic: Inqly in US Edu Sys), 350 (Topic 21), Sociology 321K (Topic: Inqly in US Edu Sys), 345D. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

### **SOC 350M. Sociology Internship Seminar.**

Restricted to students in the College of Liberal Arts. Students serve as supervised, unpaid interns in an agency, organization, or business. Provides an opportunity for students to apply the knowledge and skills acquired in sociology and other liberal arts courses. Three lecture hours and at least nine hours of fieldwork a week for one semester. Prerequisite: Upper-division standing and credit or registration for six semester hours of coursework in sociology.

### **SOC 350N. Research Internship.**

Fieldwork in research and analysis on sociological problems and institutions. About ten hours of fieldwork a week for one semester. Additional lecture hours may be required. May be repeated for credit. Prerequisite: Nine semester hours of coursework in sociology, a University grade point average of at least 3.00, upper-division standing, and consent of the faculty undergraduate adviser.

### **SOC 352. Social Movements.**

Same as American Studies 321 (Topic 7). Characteristics of crowds, publics, and social movements; their role in social organization and social change. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Social Movements), American Studies 321 (Topic 7), Sociology 352. Prerequisite: Upper-division standing.

### **SOC 352D. Boundaries and Dilemmas.**

Designed to explore policy issues linked to universal moral imperatives, violations of these imperatives, and how violations are justified. The objective is to clarify how students think about matters of life and death and help students develop research skills in a subject of significant policy importance. Three lecture hours a week for one semester. Only one of the following may be counted: Liberal Arts Honors 350 (Topic: Boundaries and Dilemmas), Sociology 352M (Topic: Boundaries and Dilemmas), 352D. Prerequisite: Upper-division standing.

### **SOC 352E. Media Industries and Entrepreneurship.**

Same as Radio-Television-Film 365 (Topic 9). Examination of the social, political, and economic contexts in which media and culture

are produced, distributed, and monetized. Emphasis on new media and communication technologies. Three lecture hours a week for one semester. Only one of the following may be counted: Journalism 355M, Radio-Television-Film 365 (Topic: Media Industries and Entrepreneurship), 365 (Topic 9), Sociology 352E, 352M (Topic: Media Industries and Entrepreneurship). Prerequisite: Upper-division standing.

### **SOC 352S. Globalization and Social Media.**

Same as Radio-Television-Film 365 (Topic 10). Issues surrounding the hype, myth, paradox, and reality of social media in a global context. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 320 (Topic: Globalization and Social Media), Journalism 349T (Topic: Globalization and Social Media), 351S, Radio-Television-Film 331M (Topic: Globalization and Social Media), 365 (Topic 10), Sociology 321K (Topic: Globalization and Social Media), 352S. Prerequisite: Upper-division standing.

### **SOC 354K. Sociology of Health and Illness.**

Application of sociological concepts and principles to the study of health professions, medical institutions, community medical organization, and the distribution of illness. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **SOC 358D. Health Policy and Health Systems.**

Covers the essentials of health policy and law, including the ways that policy and legal issues impact health care and public health systems. Three lecture hours a week for one semester. Only one of the following may be counted: Health and Society 330, Public Health 358D, and Sociology 358D. Prerequisite: Upper-division standing.

### **SOC 359. Labor and Labor Movements.**

Overview of work organizations in the United States, with emphasis on globalization, inequality, and labor movements. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **SOC 366. Deviance.**

Analysis of social norms, conformity, and reactions to norm violations. Topics include behavioral forms of deviance such as suicide and drug abuse and nonbehavioral forms of deviance such as physical abnormality. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **SOC 368D. Social Context of Public Health.**

An introduction to the social and behavioral theories that inform the discipline of public health, including practical examples of the ways that these theories are used to understand health-related behaviors and health promotion. Includes data on population distributions of mortality and morbidity, health inequalities, and how underlying social structures impact the health of individuals and communities. Three lecture hours a week for one semester. Only one of the following may be counted: Public Health 356, 368D, or Sociology 368D. Prerequisite: Upper-division standing.

### **SOC 369K. Population and Society.**

Same as Women's and Gender Studies 322D. The study of populations, including their growth, age structure, and patterns of fertility, mortality, and migration; the social causes and consequences of these phenomena. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 369K, Women's and Gender Studies 322 (Topic: Population and Society), 322 (Topic 2), 322D. Prerequisite: Upper-division standing.

### **SOC 369L. Analytical Demography.**

Formal demography; stable population theory; life tables and techniques of mortality estimation; estimates and projections. Three lecture hours a

week for one semester. Prerequisite: Upper-division standing and college algebra or the equivalent.

### **SOC 679H. Honors Tutorial Course.**

Research into and development of a thesis topic and proposal followed by the writing and defense of a thesis. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679HA, upper-division standing and admission to the Sociology Honors Program; for 679HB, Sociology 679HA.

### **SOC 379M. Sociological Theory.**

Restricted to sociology majors. Critical examination of major sociological theories and their relevance to current research and social conditions. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and six semester hours of coursework in sociology or consent of instructor.

### **SOC 379N. Conference Course.**

Supervised individual study of selected problems in sociology. Conference course. May be repeated for credit. Prerequisite: Upper-division standing, Sociology 302 or the equivalent, nine semester hours of upper-division coursework in sociology or related fields, a University grade point average of at least 3.00, and consent of the faculty undergraduate adviser.

### **SOC 379P. Undergraduate Research Opportunity.**

Restricted to sociology majors. Students participate in research-related activities with faculty members in the Department of Sociology. Activities may include collecting interview or survey data, analyzing statistics, synthesizing research literature, and coding qualitative data. Five to seven hours a week for one semester. May be repeated for credit but may only be taken once on the letter-grade basis. Prerequisite: Upper-division standing, Sociology 302 or the equivalent, nine semester hours of upper-division coursework in sociology or related fields, a University grade point average of at least 3.00, and consent of the faculty undergraduate adviser.

## **Graduate Courses**

### **SOC 180, 280, 380. Conference Course.**

Sociological topics not otherwise offered at the graduate level. The equivalent of one, two, or three lecture hours a week for one semester. May be repeated for credit, but no more than six semester hours may be counted toward the Master of Arts and no more than twelve semester hours may be counted toward the doctoral degree. May not be substituted for required courses in statistics, methods, or theory, nor may more than one of the three other area requirements be fulfilled by Sociology 380. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **SOC 383K. Seminars in Social Psychology.**

Substantive issues and current topics in social psychology. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: History and Theories of Social Psychology.** May be counted toward elective requirements.

### **SOC 384J. Special Topics in Social Statistics.**

Three lecture hours a week for one semester; additional laboratory hours may be required for some topics. Not all topics are offered every year. May be counted toward the statistics and methods requirement. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and Sociology 384L and 385L with a grade of at least B- in each.

### **SOC 384L. Social Statistics: Basic Concepts and Methods.**

Review of descriptive statistics; probability concepts; statistical inference, bivariate correlation and regression, multiple regression, dummy variables, analysis of variance, analysis of covariance; applications of statistical computing packages to social science data. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. May be counted toward the statistics and methods requirement. Required of all graduate students during their first semester of study. Prerequisite: Graduate standing.

### **SOC 384M. Seminar in Data Analysis.**

Quantitative sociological research integrating the use of statistical analysis with computer applications and survey data. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and Sociology 384L or the equivalent.

**Topic 1: Evaluation of Social Policy.** May be counted toward the statistics and methods requirement.

### **SOC 385K. Social Statistics: Discrete Multivariate Models.**

Assumptions, estimation, testing, and parameter interpretation for models using categorical data; applications of statistical computing packages and programs to social science data. Three lecture hours a week for one semester. May be counted toward the statistics and methods requirement. Prerequisite: Graduate standing, and Sociology 384L or the equivalent.

### **SOC 385L. Social Statistics: Linear Models and Structural Equation Systems.**

Model specification; review of simple regression; multiple regression in matrix form; ordinary and generalized least squares; recursive and nonrecursive structural equation models; measurement error and unobserved variables. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. May be counted toward the statistics and methods requirement. Prerequisite: Graduate standing, and Sociology 384L or the equivalent.

### **SOC 386L. Social Statistics: Dynamic Models and Longitudinal Data Analysis.**

Applications of dynamic models to data collected at successive points in time. Dynamic structural equation models; statistical time-series analysis; stochastic processes, panel, and event-history analysis. Three lecture hours a week for one semester. May be counted toward the statistics and methods requirement. Prerequisite: Graduate standing, and Sociology 384L or the equivalent.

### **SOC 387C. Special Topics in Social Research Methods.**

Three lecture hours a week for one semester; additional laboratory hours may be required for some topics. Not all topics are offered every year. May be counted toward the statistics and methods requirement. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Sociology 387J.

### **SOC 387J. Fundamentals of Research Methods.**

Fundamental assumptions and procedures for conducting sociological research, including the logic of science, the links between theory and methods, measurement, experiments, sampling, surveys, qualitative methods, and ethics. Three lecture hours a week for one semester. May be counted toward the statistics and methods requirement. Required of all graduate students during their first semester of study. Prerequisite: Graduate standing.

### **SOC 387L. Qualitative Methods for the Social Sciences.**

Qualitative survey research methods, approaches, and designs, including participant observational techniques, semistructured interviewing, and formal questionnaire and census-type surveys. Three lecture hours a week for one semester. May be counted toward the statistics and methods requirement. Sociology 387L and 387T may not both be counted. Prerequisite: Graduate standing.

### **SOC 388J. Readings in Ethnography.**

This reading-intensive seminar has four major objectives: 1) to become familiar with some classic and contemporary ethnographies, 2) to acquaint students with the methodological tenets of ethnography, 3) to consider theoretical and epistemological issues in ethnographic research, 4) to discuss narrative strategies in ethnographic writing. Three lecture hours a week for one semester. May be counted toward the statistics and methods requirement.

### **SOC 388K. Field and Observational Methods.**

Rationale and logic for field research; participant and nonparticipant observation; informant and conversational interviewing; personal documents, records, and physical traces; life histories; sources of error and bias; personal and ethical dilemmas; modes of analysis. Three lecture hours a week for one semester. May be counted toward the statistics and methods requirement. Prerequisite: Graduate standing.

### **SOC 388L. Historical and Comparative Methods.**

Scope and methods of historical and comparative sociology; application of historical sources to answer sociological questions; logic of comparative analysis in theory construction. Three lecture hours a week for one semester. May be counted toward either the statistics and methods requirement or the political sociology specialization. Prerequisite: Graduate standing.

### **SOC 389K. Seminars in Demography.**

Substantive issues and current topics in population studies and social demography. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: General Approaches to the Study of Population.** May be counted toward the demography specialization. Required for all students specializing in demography.

**Topic 2: Human Fertility.** May be counted toward either the demography specialization or the health specialization.

**Topic 3: Human Mortality.** May be counted toward either the demography specialization or the health specialization.

**Topic 4: International Migration.** Same as Latin American Studies 381 (Topic 1: International Migration). May be counted toward either the demography specialization or the race and ethnicity specialization in the sociology degree program.

**Topic 6: Training Seminar in Demography.** May be counted toward the demography specialization. Required for all students specializing in demography.

**Topic 9: Immigration Policy.** May be counted toward either the demography specialization or the race and ethnicity specialization.

**Topic 11: Family and Household Demography.** Trends in family behavior, theories about family change, and analytical techniques for studying families and households. May be counted toward either the demography specialization or the family specialization. Sociology 389K (Topic 11) and Women's and Gender Studies 393 (Topic: Family and Household Demography) may not both be counted.

**Topic 12: Demography of Health and the Life Course.** An in-depth introduction to the major conceptual frameworks and empirical research that examine distal and proximate social factors influencing adult health. Includes the assessment of key social and biological pathways linking social conditions at particular points in the life

course with adult health outcomes. May be counted toward either the demography specialization or the health specialization.

**Topic 13: Event History Analysis.** Substantive issues and current topics in population studies and social demography. May be counted toward the demography specialization.

### **SOC 190K, 290K, 390K, 690K, 990K. Proposal Preparation.**

Preparation of proposal for the doctoral dissertation. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing, completion of all coursework, and consent of instructor.

### **SOC 391L. Basic Demographic Methods and Materials.**

Population composition, change, and distribution; methods of standardizing and decomposing rates; life tables and population models; analysis of data from advanced and developing countries; applications of computer programs for demographic analysis. Three lecture hours a week for one semester. May be counted toward the statistics and methods requirement. Required of all students specializing in demography. Prerequisite: Graduate standing, and Sociology 384L or the equivalent.

### **SOC 394K. Seminars in Sociological Theory.**

Development of social thought; the emergence of systematic sociological theory; interrelations with other social sciences. Three lecture hours a week for one semester. Graduate students in sociology must take Topics 2 and 3. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 2: Contemporary Sociological Theory.** May be counted toward the theory requirement. Required of all graduate students during their second semester of study.

**Topic 3: Classical Sociological Theory.** A review of classic works in sociological theory, focusing on the work of nineteenth-century and early twentieth-century theorists. Critically examines the historical and theoretical context of sociology's founding ideas. Explores the promises and problems of the relationship between sociological theory and the modern era. May be counted toward the theory requirement. Required of all graduate students during their first semester of study.

**Topic 12: Sociology of Culture.** An overview of some of the major contemporary research in the sociology of culture. Includes discussion of meaning systems and their transformations; symbolic nature of consumption; relationship between culture and social stratification; cultural bases of power; culture industry; and sociology of the arts. May be counted toward the theory requirement.

**Topic 13: Cultural Studies.** Examines the history, debates, and key developments within the trans-disciplinary field of cultural studies. Considers the significance of the intellectual work produced in Britain from the 1940s to the present and the relationship today between the sociology of culture and cultural sociology. May be counted toward the theory requirement.

**Topic 14: Theories of Power.** Examines the social theory controversy over the definition of the terms power and domination. Considers the classical and contemporary theoretical understandings of power and domination and studies the diverse ways in which these concepts have been deployed in empirical research. May be counted toward either the theory requirement or the political sociology specialization.

### **SOC 395E. Seminars in Education.**

In-depth theoretical and policy discussions designed to give students intensive exposure to specific issues in education. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Sociology of Education.** Provides an overview of the field of sociology of education. Examines the ways in which schools reproduce, reinforce, and challenge the prevailing social, economic, and political relationships in society. Includes discussions of why people go to schools, who has access, and the effects of schools on individuals, communities, and society. May be counted toward either the education specialization or the work, occupations, and organizations specialization.

**Topic 2: Poverty, Race, and Schools.** Focuses on children's academic outcomes within the contexts of poverty, race, and schools in K-12 education. Includes an assessment of a number of student groups in an effort to understand why some children have higher quality schooling experiences than others. Considers the roles of teachers and parents in affecting children's academic outcomes, with primary emphasis placed on their importance in elementary and middle school. May be counted toward either the education specialization or the race and ethnicity specialization. Sociology 396L (Topic: Poverty, Race, and Schools) and 395E (Topic 2) may not both be counted.

**Topic 3: High School and Transition to Adulthood.** Focuses on how education is related to adolescents' transition to adulthood in modern society. Examines the structure of schooling and the life course stages of adolescence and early adulthood, societal stratification, and intergenerational mobility. May be counted toward either the education specialization or the family specialization. Sociology 395E (Topic 3) and 396L (Topic: High School and Transition to Adulthood) may not both be counted.

**Topic 4: International Issues in Education.** Introduction to key theoretical and empirical work on education and social stratification from an international perspective. Focuses on studies of school access, educational attainment and achievement, and inequality of educational opportunity in Africa, Asia, and Latin America. Includes discussion of comparative and case study readings that explore specific themes such as education and social mobility, gender, race and ethnicity, and school contexts. May be counted toward the education specialization.

**Topic 5: Social Contexts of Education.** Explores school as a social context by delving into the informal processes of education, such as socialization and the organization of social relations. Includes discussion of the school as a site of social relations, social psychological influences on educational trajectories, and the social psychological consequences of educational experiences. May be counted toward the education specialization. Sociology 396L (Topic: Social Context of Education) and 395E (Topic 5) may not both be counted.

### **SOC 395F. Seminars in Family.**

Three lecture hours a week for one semester. Not all topics are offered every year. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 2: Marriage, Family, and Kinship.** May be counted toward the family specialization.

**Topic 3: Family and Health.** May be counted toward the family and health specializations.

**Topic 7: Aging and the Life Course.** Concepts and controversies about aging and the adult life course in the United States. Includes discussion of the biology of aging as it relates to current social issues and trends, population aging and related demographic trends, the economics and politics of aging, the trajectories and transitions of the adult life course, healthy aging, age as a social status, health care rights and responsibilities, retirement as a social institution, generational equity, and the conditions and choices at the end of life. May be counted toward the family specialization.

**Topic 8: Gender, Marital Status, and Well-Being.** Examines gender and relationships from social psychological perspectives. Considers how

and why intimate relationships differ for men and women as well as the gendered consequences of relationships for mental and physical health. May be counted toward the family specialization. Sociology 395F (Topic 8) and 395G (Topic: Gender, Marital Status, and Well-Being) may not both be counted.

### **SOC 395G. Seminars in Gender.**

Three lecture hours a week for one semester. Not all topics are offered every year. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 3: Gender and Family.** Review of basic theoretical perspectives and empirical evidence concerning gender and family relationships. Considers how and why family relationships differ for men and women as well as the gendered consequences of relationships for men's and women's well-being. Includes discussion of marital status, marital transitions, marital quality, same sex intimate relationships, cohabiting relationships, and parent/child relationships. May be counted toward either the gender specialization or the family specialization.

**Topic 4: Gender and Health.** May be counted toward the gender and health specializations.

**Topic 5: Gender and Development.** May be counted toward the gender and development specializations.

**Topic 6: Gender and Work.** Examines theoretical and empirical issues regarding gender inequality in the labor market. Includes discussion of changes in female labor force participation, gender segregation in the workplace, gender gaps in earnings and promotions, as well as gender differences in career processes. May be counted toward either the gender specialization or the work, occupations, and organizations specialization.

**Topic 7: Feminist Theory.** Examines social categories such as the state, citizenship, nationalism, and globalization from a feminist perspective. May be counted toward either the gender specialization or the theory specialization. Sociology 394K (Topic: Feminist Theory) and 395G (Topic 7) may not both be counted.

**Topic 8: Readings in Gender and Sexuality.** Presents an overview of sociological theories of sexuality and provides a forum for discussion of recently published works in the sociology of gender and sexuality. May be counted toward the gender specialization.

**Topic 9: Gender and Society.** Examines the social construction of gender inequality, paying special attention to how divisions by race, class, and sexuality contribute to and occasionally undercut men's power and privilege over women. Emphasis is also placed on moments of resistance and change in gender arrangements. May be counted toward the gender specialization.

**Topic 10: Sociology of Sexual Violence.** Examines the different social forces and dynamics responsible for a variety of expressions of sexual violence existing in contemporary society. Designed to examine these processes promoting social violence from feminist-informed sociological perspectives; explore and analyze the historical, economic, and socio-cultural contexts responsible for these processes; study the issues and concerns with regard (but not limited) to gender, race and ethnicity, class, sexuality, and political activism associated with sexual violence research in the social sciences; and discuss and critique published sexual violence research based on qualitative methodologies across disciplines. May be counted toward the gender specialization.

**Topic 11: Qualitative Methods and Sexuality Research.** Examines major qualitative approaches to the study of sexuality from a sociological perspective; issues and concerns with regard to gender, race and ethnicity, class, same-gender sexualities, and activism associated with sexuality research in the social sciences; and published sexuality research based on qualitative methodologies. May be counted toward either the gender specialization or the statistics and methods requirement.

**Topic 12: Women and the Changing World of Work.** Explores the nature and causes of gender stratification in industrial societies. Examines theoretical and empirical issues regarding gender inequality in the labor market. Includes changes in female labor force participation, gender segregation in the workplace, gender gaps in earnings and promotions, and gender differences in career processes. Addresses how social institutions that vary from one country to another shape men's and women's economic opportunities and the degree of gender inequality in the society. May be counted toward the gender specialization and the work, occupations and organizations specialization in the sociology department. Only one of the following may be counted: Public Affairs 388K (Topic: Women and the Changing World of Work), Social Work 395K (Topic: Women and the Changing World of Work), Sociology 395G (Topic: Women and the Changing World of Work), 395G (Topic 12), Women's and Gender Studies 393 (Topic: Women and the Changing World of Work).

### **SOC 395J. Seminars in Health.**

Three lecture hours a week for one semester. Not all topics are offered every year. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Sociology of Health and Illness.** May be counted toward the health specialization.

**Topic 6: Sociology of Mental Health.** Examines the social causes of mental health. Explores what mental health and mental illness are and how they can be measured, contrasting the social view with the medical, psychiatric, and psychological views. May be counted toward the health specialization.

**Topic 7: Health and the Life Course.** Health across the life course; the timing and sequencing of life-course experiences and events with respect to health. May be counted toward either the health specialization or the demography specialization.

**Topic 8: Biosocial Approaches to Health.** Examines the relationships between the natural and social environments and human health and behavior. Explains how disease, functional problems, and disability are not simply biomedical problems but are reflective of a complex array of behavioral factors and social forces. Focuses on the biologically informed sociological models of health in order to understand how genetics and major biological systems interact with social conditions and experiences to influence health and health-related behaviors. May be counted toward either the health specialization or the demography specialization.

**Topic 10: Structural Equations Modeling of Health and the Life Course.** May be counted toward the health specialization.

**Topic 12: Education, Socioeconomic Status, and Health.** Examines why people with higher socioeconomic status have better health than lower status individuals. Explores the links between aspects of social status and health and how education influences health in ways that are varied, present at all stages of adult life, cumulative, self-amplifying, and uniformly positive. May be counted toward the health specialization.

**Topic 13: Gender, Health, and Society.** Focuses on the gender dimensions of health, illness, and the medical care industry in the United States, with some international comparisons. Examines the role of women as major actors in changing the health-care system, reducing health risks for themselves and their families, and their roles as health-care providers, public administrators, and leaders in the health-care establishment. Also examines the role of different levels and branches of government and the relative power of key nongovernmental actors and the media in the formation of public policy and the definition and framing of our health agenda. May be counted toward either the health specialization or the gender specialization.

### **SOC 395L. Seminars in Race and Ethnicity.**

Sociological theories and findings concerning various aspects of race and ethnicity. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Comparative Perspectives in Race and Ethnicity.** May be counted toward the race and ethnicity specialization.

**Topic 8: Race, Media, and Culture.** May be counted toward the race and ethnicity specialization.

**Topic 9: Race and the Body.** Explores theories and research methodologies in the sociological study of the body, with a focus on race, racism, gender, and sexualities. May be counted toward either the race and ethnicity specialization or the theory specialization.

**Topic 10: Critical Theories of Race and Racism.** Introduction to global perspectives on race, ethnicity, and racism. Examines the historical relationship between the emergence of ideas about race and Western modernity: importance of slavery and European colonialism in producing modern understandings of race and racial difference; contemporary racial formation in the period after the anticolonial struggles of the mid-twentieth century. May be counted toward the race and ethnicity specialization or the theory specialization. Sociology 394K (Topic: Critical Theories on Race and Racism) and 395L (Topic 10) may not both be counted.

### **SOC 396L. Seminars in Work, Occupations, and Organizations.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 10: Stratification and Social Mobility.** May be counted toward the work, occupations, and organizations specialization.

**Topic 15: Nongovernmental Organizations in the Developing World.** Explores how nongovernmental organizations reflect local and international initiatives related to human rights, the environment, sustainable development, health, education, and much more. May be counted toward the work, occupations, and organizations specialization.

**Topic 16: Sociology of Poverty in the United States.** Review of selected sociological literature on poverty and related aspects of inequality, mostly in the United States but with some comparisons made with other developed nations. Both quantitative and qualitative research on American poverty are considered. May be counted toward the work, occupations, and organizations specialization.

**Topic 17: Entrepreneurship and Incubation.** May be counted toward the work, occupations, and organizations specialization.

### **SOC 396N. Seminars in Crime, Law, and Deviance.**

Substantive issues and current topics in the study of crime, law, and deviance. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Criminology.** Examines major topics in the social scientific study of crime, including the measurement of crime, profiles of criminals, criminal behavior across the life course, and public perceptions of and reactions to crime. May be counted toward the crime, law and deviance specialization.

**Topic 2: Theories of Crime Causation.** Focuses on the major theories of criminal behavior and whether and in what ways empirical data support or refute various theoretical perspectives. May be counted toward the crime, law, and deviance specialization.

**Topic 3: Criminal Justice.** Designed to provide an overview of research on how the penal system works in practice by examining the empirical literature on sentencing, prisons, recidivism, and evaluation research of penal programs. May be counted toward the crime, law, and deviance specialization.

**Topic 4: Introduction to Law and Society.** Focuses on the noncrime aspects of the legal system, especially civil justice; the pursuit of perceived legal entitlements and grievances; studies of legal professionals and legal decision makers; and the use of the legal system to advance social change. May be counted toward the crime, law, and deviance specialization.

**Topic 5: Law, Legitimacy, and Control.** Explores the interconnections between law, morality, and the sense of injustice. Examines the attributes of a moral system as they influence the collective assessment of legitimacy, the emergence of social movements for reform, and the resulting efficacy of law as an instrument of control. May be counted toward either the crime, law, and deviance specialization or the political sociology specialization.

**Topic 6: Deviance.** Examines the characteristics, causes of, and societal reactions to several types of deviant behavior. May be counted toward the crime, law, and deviance specialization.

### **SOC 396P. Seminars in Political Sociology, Development, and Globalization.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

**Topic 1: Political Sociology.** May be counted toward the political sociology specialization.

**Topic 2: Social Movements.** May be counted toward the political sociology specialization.

**Topic 3: Social Change.** May be counted toward the political sociology specialization.

**Topic 6: Elites.** Same as Government 390L (Topic 10: Elites). May be counted toward the political sociology specialization in the sociology degree program.

**Topic 7: Peace, Conflict, and Violence.** May be counted toward the political sociology specialization.

**Topic 8: Cultural Sociology.** May be counted toward the political sociology and religion specializations.

**Topic 9: Economic Development and Social Change.** May be counted toward the political sociology, development, and globalization specialization. Sociology 395D (Topic 1) and 396P (Topic 9) may not both be counted.

**Topic 10: Introduction to the Sociology of Latin America.** Same as Latin American Studies 381 (Topic 14). Only one of the following may be counted: Latin American Studies 381 (Topic 14), Sociology 395D (Topic 2), 396P (Topic 10). May be counted toward the political sociology/development and globalization specialization in the sociology degree program.

**Topic 11: Mexican Political System in Transition.** May be counted toward the political sociology, development and globalization specialization. Sociology 395D (Topic 3) and 396P (Topic 11) may not both be counted.

**Topic 12: Gender and Politics.** Provides a comprehensive introduction to the history of women's entry into politics internationally, the current state of women's political representation across countries and regions, and contemporary debates on why and how women's access to political power varies across countries. May include discussion of the ways in which gender intersects with other social identities, such as race, ethnicity, class, and sexual orientation. May be counted toward either the political sociology specialization or the gender specialization.

**Topic 13: Housing Practices and Public Policy in Latin America.** Same as Latin American Studies 381 (Topic 6). May be counted toward the political sociology, development and globalization specialization in the sociology degree program. Only one of the following may be counted: Sociology 395D (Topic 5), 396P (Topic 13), Latin American Studies 381 (Topic 6).

**Topic 14: Citizenship and Social Policy.** May be counted toward the political sociology, development and globalization specialization. Sociology 395D (Topic 7) and 396P (Topic 14) may not both be counted.

**Topic 15: Economic Sociology.** May be counted toward the political sociology, development and globalization specialization. Sociology 395D (Topic 8) and 396P (Topic 15) may not both be counted.

**Topic 16: Urbanization.** May be counted toward the political sociology, development and globalization specialization. Sociology 395D (Topic 9) and 396P (Topic 16) may not both be counted.

**Topic 17: Poverty and Marginality in the Americas.** Same as Latin American Studies 381 (Topic 23). Review of the past and present ethnographic analyses of the nature and experiences of poverty and marginality in Latin America and in the United States. Examines some of the most controversial issues and debates, and explores emerging research topics north and south of the border. May be counted toward the sociology department's political sociology, development and globalization specialization in the sociology degree program. Only one of the following may be counted: Latin American Studies 381 (Topic: Poverty and Marginality in the Americas), 381 (Topic 23), Sociology 395D (Topic: Poverty and Marginality in the Americas), 396P (Topic 17).

**Topic 19: Bourdieu and the Craft of Sociology.** Examines Bourdieu's key notions as they become articulated in the craft of research and writing in his work, and that of others, with an underlying objective of learning how to think and conduct sociological research with or against Bourdieu. May be counted toward the political sociology, development and globalization specialization. Sociology 396P (Topic: The Uses of Theory: Bourdieu and the Craft of Sociology) and 396P (Topic 19) may not both be counted.

**Topic 20: Prosocial Behavior.** Instruction steers away from traditional focus of sociology and considers pro-social behavior - actions intended to help or benefit others. Similar to the "positive psychology" movement, which asks what makes individuals resilient and happy rather than abnormal or depressed, examines what makes individuals, groups, and communities sacrifice, trust, volunteer, and generally work together. Three lecture hours a week for one semester. Sociology 396P (Topic: Prosocial Behavior) and 396P (Topic 20) may not both be counted.

### **SOC 396Q. Seminars in Law and Human Rights.**

Theory and research on those instances in which legal regimes and/or legal institutions, such as prisons, raise human rights issues. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **SOC 397D. Publishing Papers in Sociology.**

Three lecture hours a week for one semester. May be counted toward elective requirements. Prerequisite: Graduate standing.

### **SOC 397P. Proseminar.**

A review of the requirements and responsibilities of professional sociologists. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in sociology.

### **SOC 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in sociology, twelve semester hours of graduate coursework in sociology, and consent of the graduate adviser; for 698B, Sociology 698A.

### **SOC 398T. Supervised Teaching in Sociology.**

Teaching under the close supervision of the course instructor for two semesters; weekly group meetings with the instructor, individual

consultations, and reports throughout the teaching period. Three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **SOC 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **South Asian Languages Courses**

## **South Asian Languages: SAL**

### **Lower-Division Courses**

#### **SAL 506. First-Year South Asian Languages I.**

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. Five lecture hours a week for one semester. May be repeated for credit when the topics vary.

#### **SAL 507. First-Year South Asian Languages II.**

Emphasis on four-skills proficiency: listening, speaking, reading, and writing. Five lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: South Asian Languages 506 with a grade of at least C.

#### **SAL 312K. Second-Year South Asian Languages I.**

Listening, speaking, reading, and writing at the second-year level. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: South Asian Languages 507 with a grade of at least C.

#### **SAL 312L. Second-Year South Asian Languages II.**

Listening, speaking, reading, and writing at the advanced, second-year level. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: South Asian Languages 312K with a grade of at least C.

## **Upper-Division Courses**

### **Graduate Courses**

### **Professional Courses**

# **Spanish Civilization Courses**

## **Spanish Civilization: SPC**

### **Lower-Division Courses**

#### **SPC 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Spanish Civilization.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

#### **SPC 320C. Topics in Iberian or Latin American Studies.**

Significant issues in Iberian or Latin American societies and cultures. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 1: Jewish Voices from Latin America.** Same as Jewish Studies 363 (Topic 15) and Latin American Studies 328 (Topic 4). An introduction to Jewish writers from Brazil and Latin America, with an emphasis on those whose works portray the situation of the Jewish communities in their respective cities and countries. Only one of the following may be counted: Jewish Studies 363 (Topic 15), 363E, Latin American Studies 328 (Topic 4), 370S (Topic 32), Spanish 355 (Topic 3), 355D, Spanish Civilization 320C (Topic 1). Additional prerequisite: Upper-division standing.

**Topic 2: Mediascapes: Literature and Media in the Caribbean.** Same as African and African Diaspora Studies 345Q and Latin American Studies 328 (Topic 5). Analyzes the relationship between literature and media technologies in contemporary Caribbean cultures. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345Q, 370 (Topic: Lit and Media in Caribbean), 372G (Topic: Lit and Media in Caribbean), Latin American Studies 328 (Topic 5), 370S (Topic 28), Spanish 350E, Spanish 350K (Topic 5), Spanish Civilization 320C (Topic 2). Additional prerequisite: Upper-division standing.

#### **SPC 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Spanish Civilization.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Graduate Courses**

### **Professional Courses**

# **Spanish Courses**

## **Spanish: SPN**

### **Lower-Division Courses**

#### **SPN 301. Spanish for Graduate Students in Other Departments.**

For graduate students in other departments seeking to fulfill degree language requirements. No auditors. Purpose: To introduce fundamentals of grammar and lexicon to enable students to read texts in their areas of specialization. Primary aim: To allow students to acquire reading proficiency. Also presents audio-aural aspect. Three lecture hours a week for one semester. May not be used to fulfill the undergraduate foreign language requirement. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

#### **SPN 601D. First-Year Spanish I.**

Explore the development of speaking, listening, reading, and writing skills; build vocabulary, review basic rules and terminology of grammar; and examine Spanish-speaking cultures. Six lecture hours a week for one semester. Only one of the following may be counted: Spanish 601D, 604, 506. Only one of the following may be counted: Spanish 601D, 604, 507, 508K.

#### **SPN 604. Accelerated Introductory Spanish for Heritage Learners.**

Designed primarily for students who have a cultural and linguistic connection to Spanish (i.e. native and near-native speakers, Spanish as home language). Six lecture hours a week for one semester. Only one of the following may be counted: Spanish 601D, 604, 506. Only one of the

following may be counted: Spanish 601D, 604, 507, 508K. Only one of the following may be counted: Spanish 604, 610D, 312K.

### **SPN 610D. First-Year Spanish II.**

Continue to explore the development of speaking, listening, reading, and writing skills; build vocabulary, review basic rules and terminology of grammar; and examine Spanish-speaking cultures. Six lecture hours a week for one semester. Only one of the following may be counted: Spanish 604, 610D, 312K. Prerequisite: Spanish 601D (or 507 or 508K) with a grade of at least C.

### **SPN 311. Intermediate Spanish.**

Focus on the development of speaking, listening, reading, and writing skills while building vocabulary. Review rules and terminology of Spanish grammar. Examine complex grammar structures and Spanish-speaking cultures. Three lecture hours a week for one semester. Only one of the following may be counted: Spanish 311, 611D, 311J, 612, or 312L. Prerequisite: Spanish 604 or 610D (or 312K) with a grade of at least C.

### **SPN 611D. Second-Year Spanish.**

Focus on the development of multilingual literacy through the analysis and use of Spanish to achieve linguistic competence (aspect, mood, compound tenses, passive voice), communication and interactional competence (pragmatics, cultural perspectives), and metalinguistic competence (critical analysis of oral and written texts, dialectal differences). Six lecture hours a week for one semester. Only one of the following may be counted: Spanish 311, 611D, 311J, 612, or 312L. Only one of the following may be counted: Spanish 611D, 612, 314, 314J, or 318. Prerequisite: Spanish 604, 610D or 312K with a grade of at least C.

### **SPN 311J. Intermediate Spanish for Heritage Learners.**

Designed primarily for students who have a cultural and linguistic connection to Spanish (i.e. native and near-native speakers, Spanish as home language). Three lecture hours a week for one semester. Only one of the following may be counted: Spanish 311, 611D, 311J, 612, or 312L. Prerequisite: Spanish 604 or 610D (or 312K) with a grade of at least C.

### **SPN 314. Spanish Conversation and Culture.**

Explore the development of oral skills and speaking strategies in different discourse genres including informal, formal, academic, and travel. Three lecture hours a week for one semester. Only one of the following may be counted: Spanish 611D, 612, 314, 314J, or 318. Prerequisite: Spanish 604, 610D or 312K with a grade of at least C.

### **SPN 314J. Writing and Culture in Context for Heritage Learners.**

Designed for students with a cultural and linguistic connection to Spanish (i.e. native and near-native speakers, Spanish as a home language). Examine Hispanic cultures and sociopolitical experiences and explore communicative abilities through a variety of interactive, student-centered activities. Three lecture hours a week for one semester. Only one of the following may be counted: Spanish 611D, 612, 314, 314J, or 318. Prerequisite: Spanish 604 or 610D with a grade of at least C.

### **SPN 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Spanish.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May not be counted toward a major in Spanish. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **SPN 327C. Advanced Grammar and Writing in Context.**

Study and practice of Spanish grammar that includes reading exercises and guided composition designed to develop writing skills across styles. Students will be exposed to various topics in Spanish language, literature, and culture. Three lecture hours a week for one semester. Spanish 327C and 327N may not both be counted. Prerequisite: Spanish 311 and 314, 611D, or 311J and 314J (or 612 or 312L).

### **SPN 327N. Academic Writing for Heritage Speakers.**

Designed specifically for heritage speakers of Spanish and includes a wide range of cultural readings and writing tasks. Aims to strengthen the clarity and organization of writing, promote critical thinking, and master grammar points of particular concern to heritage speakers. Three lecture hours a week for one semester. Spanish 327C and 327N may not both be counted. Prerequisite: Spanish 311 and 314, 611D, or 311J and 314J (or 612 or 312L).

### **SPN 327W. Advanced Grammar and Composition II.**

Develops writing skills needed for upper-division coursework in Spanish. Emphasizes grammar in Spanish language, literature, and culture, exploring different compositional styles. Three lecture hours a week for one semester. Prerequisite: Spanish 327C or 327N with a grade of at least C.

### **SPN 328. Spanish Civilization.**

A survey of the social, political, and cultural history of Spain. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 27), Spanish 328, 328C. Prerequisite: Spanish 311 and 314, 611D, or 311J and 314J (or 612 or 312L).

### **SPN 328C. Introduction to Literatures and Cultures.**

Same as Latin American Studies 370S (Topic 27). Overview of Iberian and/or Latin American literatures and cultures, including the arts and popular expressions, from a multidisciplinary perspective. Among the regions studied are Spain; North, Central, and South America; the Caribbean; and related areas in Africa. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 27), Spanish 328, 328C. Only one of the following may be counted: Latin American Studies 370S (Topic 3), 370S (Topic 27), Spanish 322K, 328C. Prerequisite: Spanish 311 and 314, 611D, or 311J and 314J (or 612 or 312L).

### **SPN 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Spanish.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Spanish and Portuguese. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May not be counted toward a major in Spanish. May be repeated for credit when the topics vary.

### **SPN 130D. Spanish across Disciplines.**

Students read and discuss Spanish language materials related to the subject matter of another designated course. One lecture hour a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: One upper-division Spanish course or consent of instructor.

### **SPN 330L. Introduction to Language and Linguistics in Society.**

Examines the dynamics of language structure and use throughout the Spanish-speaking world, and covers topics such as sound systems, grammatical structures, historical developments, language learning and loss, and dialect differences and their social significance. Three lecture hours a week for one semester. Spanish 330L and 345L may not both be counted. Prerequisite: Spanish 311 and 314, 611D, or 311J and 314J (or 612 or 312L).

### **SPN 346C. Spanish Pronunciation.**

Review Spanish pronunciation. Examine the fundamental principles of phonetic analysis in order to show how Spanish sounds are produced, how they fall into patterns, and how they change in different environments. Three lecture hours a week for one semester. Spanish 346 and 346C may not both be counted. Prerequisite: Spanish 327C (or 327G) or 327N.

### **SPN 348D. Service Learning and Research in Spanish.**

Research an area that affects the Spanish-speaking members of the community, through a service internship at a relevant site. Three lecture hours a week for one semester, with additional fieldwork hours to be arranged. Only one of the following may be counted: Spanish 348C (Topic 1), 348D, 367P (Topic: Service Learning and Research in Spanish). Prerequisite: Spanish 327C (or 327G) or 327N.

### **SPN 350C. Gender Issues in Contemporary Latin American Cinema.**

Same as Latin American Studies 370S (Topic 24) and Women's and Gender Studies 335 (Topic 6). Studies Latin American cinema as a device of gender system formation and reinforcement, and as criticism of patriarchal hegemony; discusses questions related to sexuality depicted in Latin American films. Subjects covered include: maternity, prostitution, machismo, children's sexuality, homosexuality, heterosexuality, and gender violence in films from the 1930s to present. Conducted in Spanish. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 24), Spanish 350 (Topic: Gender in Contemporary Latin American Cinema), 350C, 350K (Topic 1), Women's and Gender Studies 335 (Topic 6), 340 (Topic: Gender in Contemporary Latin American Cinema). Prerequisite: Spanish 327C, (or 327), (or 327G), and three hours of upper-division coursework in either Spanish or Spanish Civilization.

### **SPN 350D. Latin American Film and Culture.**

Review Latin American cinema from the silent era to present, with an emphasis on the last forty years. Discuss the development of the film industry (particularly in Argentina and Mexico in the 1930s and 1940s), the "New Wave" of Latin American cinema in the 1960s, and contemporary trends. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 25), Spanish 350D, 350K (Topic 3). Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 350E. Mediascapes: Literature and Media in the Caribbean.**

Analyze the relationship between literature and media technologies in contemporary Caribbean cultures. Examine the notion and uses of Caribbean mediascapes. Discuss the uses of media technologies derived from film, television, the internet and YouTube, and the ways they are used and read in the Spanish Caribbean. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345Q, 372G (Topic: Lit and Media in Caribbean), Latin American Studies 328 (Topic 5), 370S (Topic 28), Spanish 350E,

Spanish 350K (Topic 5), Spanish Civilization 320C (Topic 2). Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 350F. Latin Noir: Film and Crime in Latin America.**

Examine the contributions of Latin America to film noir, in the context of criminality and urbanization in contemporary society. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Latin Noir: Film/Crime Lat Am), Spanish 350F, 350K (Topic: Latin Noir: Film/Crime in Latin America). Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 350G. Cuban Revolution.**

Explore diverse accounts and interpretations of the Cuban Revolution in fictional and documentary film and narrative produced in the island and abroad by pro-and counter-revolutionary, island and diaspora, Cuban and non-Cuban, local and international directors and writers. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Cuban Revolution), Spanish 350G, 350K (Topic: Cuban Revolution). Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 351. Don Quijote and the Early Modern World.**

Study of Cervantes's *Don Quijote* in depth in the original Spanish. Examines the author's views on artistic freedom, as well as his manipulation of literary genres and conventions, with his questions regarding the dominant political, religious, and literary discourses of early modern Spain. Three lecture hours a week for one semester. Prerequisite: Spanish 327C or 327N, or 328C.

### **SPN 352C. Contemporary Caribbean Literature.**

Explore themes and major authors from the Spanish Caribbean, since 1980 to contemporary United States Caribbean authors (Cuba, Puerto Rico, Dominican Republic). Discuss themes such as national identities, history, intersectionality of race, gender and sexuality, exile and displacement, urban and city enclaves, and the richness and complexity of Caribbean cultures in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 44), Spanish 352 (Topic 4), 352C. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 353. Sociolinguistics.**

Explores the interrelationship of language and society, with reference to the Spanish-speaking world. Studies how socioeconomic, political, and anthropological factors like race, social class, gender, age, and identity influence linguistics forms. Three lecture hours a week for one semester. Prerequisite: Spanish 327C or 327N, or 330L.

### **SPN 355C. Fantastic Fiction from Latin America.**

Analyze short stories by Latin American writers that in some way represent an alternative to realism. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 30), Spanish 355 (Topic 1), 355C. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 355D. Jewish Voices from Latin America.**

Same as Jewish Studies 363E and Latin American Studies 370S (Topic 32). Overview of popular Jewish writers from Brazil and Spanish America, with special emphasis on those who portray in their work the situation of the Jewish communities of their respective cities and countries. Conducted in Spanish. Three lecture hours a week for one semester. Only one of the following may be counted: Jewish Studies 363 (Topic 15), 363E, Latin American Studies 328 (Topic 4), 370S (Topic 32), Spanish 355 (Topic 3), 355D, Spanish Civilization 320C (Topic 1). Prerequisite: Spanish 327C (or 327G) or 327N, and 328C.

### **SPN 355E. Revolutionary Imagination in Latin American Cultures.**

Explore literary expressions in Latin America that reflect a dissident or transgressive imaginary published during the revolutionary period (1960-1990). Examine how different socio-historical experiences require new narrative forms, and innovative ways of exploring and codifying collective community identities. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Revolutionary Imagination in Latin American Literature), 370S (Topic 34), Spanish 355 (Topic 5), 355E. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 355F. Violence in Contemporary Mexican Culture.**

Same as Latin American Studies 370S (Topic 23) and Women's and Gender Studies 340 (Topic 20). Studies the representation of violence in contemporary literary and cultural production in Mexico in order to understand social, political, and cultural implications of current violence there. Taught in Spanish. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 23), Spanish 355 (Topic 6), Spanish 355F, and Women's and Gender Studies 340 (Topic 20). Prerequisite: Spanish 327C (or 327G) and three hours of upper-division coursework in Spanish or Spanish Civilization.

### **SPN 355G. Memory and Writing in Caribbean Culture.**

Examine literary works from the greater Caribbean basin (with a focus on Cuba and Puerto Rico) in which the act of remembering is emphatically dramatized and described. Three lecture hours per week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Writing and Memory in Caribbean Literature), 370S (Topic 37), Spanish 355 (Topic 8), 355G, 375 (Topic: Writing and Memory in Caribbean Literature). Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 355J. Cultures in Contact in Colonial Spanish America.**

Explore how Indigenous and European cultures represent their often-unequal encounters in colonial Spanish America. Analyze alphabetic and visual texts to examine the complex issues of mapping and representations of self and others; intercultural interpretations and exchanges; rituals and performances of domination, subordination, and negotiation; and the construction of social identities in an evolving geographic and cultural space. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Cult Contact Colonial Spn Amer), Spanish 355 (Topic: Cult Contact Colonial Spn Amer), 355J. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 355K. Body Politics in Latin American Poetry.**

Explore poetic discourse as it relates the experience of the body to social, political and cultural contexts. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Body Politics Lat Am Poetry), Spanish 355 (Topic: Body Politics Lat Am Poetry), 355K. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 355L. From El Che to Evita.**

Explore approaches and views from disciplines such as literature, music, film, history, and politics, and fields such as cultural studies, media studies, performance, gender and queer politics, critical race theory, and indigenous studies. Analyze different technologies of representation, from writing and visual materials to voices and sounds. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: From El Che to Evita),

Spanish 355 (Topic: From El Che to Evita), 355L. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 355M. Garcia Marquez.**

Examine the literary movement of magical realism from the 1940s through the 1960s when "Cien anos de soledad" by Garcia Marquez became a seemingly overnight sensation, through later writers such as Isabel Allende and Laura Esquivel. Explore the development of this Spanish American tradition. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Garcia Marquez & Magic Rlsm), Spanish 355 (Topic: Garcia Marquez & Magic Rlsm), 355M. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 355N. Hip Hop Culture in Latin America.**

Examine the development of the culture of hip hop in Latin America. Utilize a variety of materials including rap lyrics, graffiti, urban muralism, break dance, sound design, and entrepreneurship to discuss media and migratory factors of hip hop expansion in the region; the notions of youth culture conveyed by these expressions; aesthetic debates around hip hop; the public intervention of hip hop groups and their political influence. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Hip Hop Culture in Lat Amer), Spanish 355 (Topic: Hip Hop Culture in Lat Amer), 355N. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 355Q. Gender and Modernity in Mexican Literature and Culture.**

Explore the representation of body in Mexico in the period comprehended between Porfirio Diaz's regime and the post-revolutionary era (1880s to 1930s). Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Gender/Mod in Mex Lit and Cul), Spanish 355 (Topic: Gender/Mod in Mex Lit and Cul), 355Q. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 355R. East, West, and New World Encounters.**

Examine works mostly in the Latin American and Hispanic literary tradition in which images or themes related to the East (Asia, Eastern Africa, the Middle East) are developed. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Visions of the East in Latin American Writing), 370S (Topic 36), Spanish 352 (Topic: Visions of the East in Latin American Writing), 355 (Topic 7), 355R. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

### **SPN 356C. Indigenous Voices in Latin American Literature.**

Examine how indigenous intellectuals and writers have creatively established their own voices in writing and other modern and contemporary media in Latin America over time. Discuss works by Guaman Poma, Tito Cusi Yupanqui, Nezahualcoyotl, Jose Maria Arguedas, Rigoberta Menchu, Pascual Cona, as well as contemporary Nahuatl, Mayan, Quechua, and Mapuche poetry and narrative, films and samples of radio programs. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 17), Spanish 350 (Topic 4), 356 (Topic 1), 356C. Prerequisite: Spanish 327 (or 327G) or 327N, or 328C.

### **SPN 356D. Indigenous Resurgence.**

Analyze and discuss the ways in which re-telling, documentation and invocation of the past shapes different forms of self-representation by indigenous authors as a response to colonialism in late twentieth and early twenty-first century Latin American societies. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Indigenous Resurgence), Spanish 356

(Topic: Indigenous Resurgence), 356D. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

#### **SPN 357D. Cultures in Contact in Medieval Spain.**

Explore works of literature that reflect the three cultures which coexisted for almost eight centuries in medieval Spain: the Islamic, the Jewish, and the Christian. Three lecture hours a week for one semester. Only one of the following may be counted: Spanish 350 (Topic 8), 357 (Topic 2), 357D. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

#### **SPN 357E. Spanish Translation and the Social Sciences.**

Explore the development of translation and interpretation skills, in speaking, reading, and writing, in the disciplines of the social sciences. Three lecture hours a week for one semester. Spanish 357 (Topic: Span Translation/Social Sci) and 357E may not both be counted. Prerequisite: Spanish 327C (or 327G) or 327N or 328C.

#### **SPN 357F. Writing the Other in Spain and Latin American Texts.**

Explore the subjective encounter with "the other" as expressed in literary and cultural texts of early modern Spain and Latin American texts directed toward or received by a transatlantic audience during the Colonial period. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic: Writing the Other Spain/Lat Am), Spanish 357 (Topic: Writing the Other Spain/Lat Am), 357F. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

#### **SPN 359. United States Latino Literatures and Cultures in Context.**

Same as Latin American Studies 370S (Topic 43). Examines the United States Latino literary and cultural production from multidisciplinary perspectives, such as literature, film, music, and performance. Analysis of the literatures and experiences of United States Latino writers and artists in their historical and cultural specificities. Three lecture hours a week for one semester. Latin American Studies 370S (Topic 43) and Spanish 359 may not both be counted. Prerequisite: Spanish 327C or 327N, or 328C.

#### **SPN 364L. Linguistics and the Spanish Learner.**

Focuses on instructed and naturalistic second language (L2) development among adults. Subjects include: L2 acquisition theories, Spanish learners' difficulties, learners' and teachers' beliefs about L2, learners' motivations and needs, and heritage language learners. Three lecture hours a week for one semester. Prerequisite: Spanish 327C or 327N, or 330L.

#### **SPN 365G. Conference Course in Hispanic Linguistics.**

Conference course. Prerequisite: Spanish 612 or 312L; and written consent of the department chair.

#### **SPN 365L. Conference Course in Hispanic Literature.**

Conference course. Prerequisite: Spanish 612 or 312L; and written consent of the department chair.

#### **SPN 367C. Spanish for Health Care Professions.**

Explore both spoken and written language in health care situations. Focus on complex grammatical concepts and cultural issues that affect professional activities in Spanish-speaking communities. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 322 (Topic 17), Spanish 367C, 367K (Topic 7), 367P (Topic 1). Prerequisite: Spanish 327C (or 327G) or 327N or 328C.

#### **SPN 367D. Business in Hispanic Life and Culture.**

Explore business Spanish. Practice verbal communication in the context of meetings, exchanges, video conferences, presentations, and professional discussion, in Spanish and in areas related to finance, marketing, accounting, operations. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 322 (Topic 18), 370S (Topic 19), Spanish 350 (Topic 10), 367D, 367P (Topic 2). Prerequisite: Spanish 327C (or 327G) or 327N or 328C.

#### **SPN 367T. Advanced Oral and Written Expression for Teachers.**

Designed to help teacher candidates prepare to pass the state oral and written proficiency exams at the advanced level to obtain certification. Focus on oral proficiency for various genres of speaking with an emphasis on writing and reading of different genres. Three lecture hours a week for one semester. Prerequisite: Spanish 327C or 327N, or 330L.

#### **SPN 368D. Contact Spanish in the United States.**

Examine the linguistic situation of persons of Spanish language heritage in the United States. Focus on the social and cultural factors that are implicated in their language behaviors. Three lecture hours a week for one semester. Spanish 368C (Topic: Contact Spanish in the U.S.) and 368D may not both be counted. Prerequisite: Spanish 327C (or 327G) or 327N, or 330L.

#### **SPN 368E. Bilingualism.**

Examine bilingualism in the Spanish-speaking world from the perspective of individuals in societies. Three lecture hours a week for one semester. Spanish 368C (Topic: Bilingualism) and 368E may not both be counted. Prerequisite: Spanish 327C (or 327G) or 327N, or 330L.

#### **SPN 369C. African Diasporas.**

Analyze the sociocultural contexts of the African diaspora in the Americas with particular focus on the Caribbean and Brazil. Explore the contributions of the African diasporic populations and the stylistic strategies through which they constructed their social, political, and cultural agency. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 42), Spanish 358 (Topic 1), 369C. Prerequisite: Spanish 327C (or 327G) or 327N, or 328C.

#### **SPN 377C. Topics in Spanish.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Spanish 327C (or 327G) or 327N, and 328C.

#### **SPN 377H. Honors Tutorial Course.**

Supervised individual research on a literary, linguistic, or cultural problem, culminating in a written thesis. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing, admission to the Honors Program, and consent of the Honors advisor.

#### **SPN 379C. Capstone Seminar in Literatures and Cultures.**

Brings together central issues, concepts, and themes that define Iberian or Latin American literatures and cultures, while focusing on a specific case-study or case-studies. Three lecture hours a week for one semester. Prerequisite: Spanish 327C (or 327G), 327N, 328C, and twelve hours of upper-division coursework in Spanish.

#### **SPN 679H. Honors Tutorial Course.**

Supervised individual research on a literary, linguistic, or cultural problem, culminating in a written thesis of fifty to eighty typewritten pages. Conference course for two semesters. Prerequisite: For 679HA,

upper-division standing, admission to the Spanish Honors Program, and consent of the honors adviser; for 679HB, Spanish 679HA.

### **SPN 379L. Capstone Seminar in Linguistics.**

Brings together central issues, concepts, and themes that define linguistics, while focusing on a specific case-study or case-studies, that allow for the necessary depth and rigor to produce a research paper on a particular topic of interest. Three lecture hours a week for one semester. Prerequisite: Spanish 327C (or 327G), 327N, 330L, and twelve hours of upper-division coursework in Spanish.

## **Graduate Courses**

### **SPN 380K. Studies in Spanish American Literature.**

Topics include Modernismo; the short story; contemporary trends of the Spanish American novel; the literary prose of Sarmiento; gaucho literature; Ruben Dario; contemporary Argentine fiction. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twelve semester hours of upper-division coursework in Spanish, and consent of the graduate adviser.

**Topic 1: Comparative Studies in the Literatures of Brazil and Spanish America.** Same as Portuguese 381 (Topic 1).

### **SPN 284P, 384P. Examination Preparation.**

Individual preparation for the master's comprehensive and doctoral qualifying examination. Designed to be taken in the same semester in which the student takes the examination. Individual instruction. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **SPN 285L, 385L. Conference Course in Hispanic Literatures and Linguistics.**

For students needing specialized courses not normally or not often included in the regular course offerings. Conference course. May be repeated for credit. Prerequisite: Graduate standing and written consent of the graduate adviser.

### **SPN 396K. Comparative Romance Linguistics.**

General survey of the development of spoken Latin in Italy, Spain, Portugal, and France; main traits of phonology, morphology, and syntax of each modern derivative language. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in languages and consent of instructor and the graduate adviser.

**Topic 1: Comparative Romance Linguistics.** Same as Portuguese 396K (Topic 1: Comparative Romance Linguistics).

**Topic 2: Introduction to Romance Linguistics.** Same as French 396K (Topic 1: Introduction to Romance Linguistics), Italian 396K (Topic 1: Introduction to Romance Linguistics), Linguistics 383 (Topic 3: Introduction to Romance Linguistics), and Portuguese 396K (Topic 2: Introduction to Romance Linguistics).

### **SPN 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Spanish and consent of the graduate adviser; for 698B, Spanish 698A and consent of the graduate adviser.

### **SPN 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for

one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in Spanish and consent of the graduate adviser.

### **SPN 398T. Supervised Teaching.**

Same as Portuguese 398T. Fundamentals of foreign language teaching methodology, with particular reference to the teaching of Portuguese or Spanish. Presentation of theoretical concepts on which classroom practice is based, in conjunction with teaching under close supervision of the course instructor, individual consultations, reading assignments, and reports. Three lecture hours a week for one semester. Required for teaching assistants during the first semester that they teach. Offered on the letter-grade basis only. Prerequisite: Graduate standing, appointment as a teaching assistant, and consent of the graduate adviser.

## **Professional Courses**

# **Special Education Courses**

## **Special Education: SED**

### **Lower-Division Courses**

#### **SED 303. Autism Spectrum Disorder: Truths and Consequences.**

Focus on approaches and strategies that help improve the lives of people with ASD. Examines the role research plays in what people know about various claims. Explores how research findings are communicated, and how to best translate research findings into everyday language. The equivalent of three lecture hour a week for one semester.

#### **SED 293, 393. Graduate Seminar in Special Education.**

Discussion of critical issues; critiques of literature; development of theories and models regarding disabling conditions. The equivalent of three class hours a week for one semester. Special Education 380 and 393 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences; and consent of instructor.

**Topic 17: Instructional Designs Using Assistive Technology.** The design of instruction for students with disabilities by using assistive and instructional technologies.

**Topic 18: Collaboration.** Strategies such as collaborative consultation and teamwork models, which are used to improve learning outcomes for students with diverse learning needs.

**Topic 20: Applied Research.** Special Education 393 (Topic 5) and 393 (Topic 20) may not both be counted.

### **Upper-Division Courses**

#### **SED 332. Field Experiences in Special Education.**

Observation and participation in a variety of educational settings that serve children with disabilities. Two lecture hours and two four-hour sessions of fieldwork a week for one semester. Fieldwork sessions must be arranged between 8:00 AM and noon. Required for all undergraduate students seeking special education certification.

#### **SED 337. Intercultural Communication and Collaboration.**

Basic principles of interpersonal and intergroup communication in culturally and linguistically diverse educational settings. Designed to help students understand the relationship between culture, language, and disability using a variety of formats, including discussion, dialogue, journals, simulations, case studies, and field-based assignments. Three lecture hours a week for one semester. Required for undergraduate students seeking special education certification. Prerequisite: Admission

to the teacher preparation program and consent of the Office of Student Field Experiences.

### **SED 360, 960. Apprenticeship: Research to Practice.**

Supervised practicum in special education classroom teaching, conducted in cooperating schools, as part of the teacher preparation program. Consists of teaching, analysis, and evaluation. Two lecture hours and at least fifteen, thirty, or forty-five hours of fieldwork a week for one semester. Required for undergraduate students seeking special education certification. Offered on the pass/fail basis only. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

### **SED 372. Assessment of Individuals with Mild to Moderate Disabilities.**

Assessment and high-stakes testing policies, procedures, and practices in special education; curriculum-based measurement used to monitor academic outcomes for students with disabilities; and principles and procedures used to reduce misidentification of individuals from culturally and linguistically diverse backgrounds and with limited English proficiency. Assessment data and individualized education plan development is also covered. Three lecture hours a week for one semester. Required for students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

### **SED 375C. Teaching Individuals with Mild to Moderate Disabilities.**

Instructional practices associated with improved outcomes for students with mild to moderate disabilities receiving services in general and special education classrooms, including an emphasis on teaching reading in content areas, such as mathematics, science, and social studies. Three lecture hours and sixteen to twenty internship hours a week for one semester. Required for students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

### **SED 376. Foundations and Issues in Special Education.**

Key issues affecting decision-making and practices by special education teachers, assessment personnel, and administrators related to the treatment and education of students with disabilities. Three lecture hours a week for one semester. Required for students seeking special education certification.

### **SED 377. Transition and the Exceptional Learner.**

An overview of the transitions within the life span, particularly the transition to postsecondary school settings for individuals with disabilities. Designed to help students develop the ability to infuse transition-related topics into curricula, assess transition needs, develop transition plans, and become knowledgeable about existing vocational and community services. Three lecture hours a week for one semester, with fieldwork to be arranged. Required for students seeking special education certification. Prerequisite: Applied Learning and Development 322 and consent of the undergraduate adviser.

### **SED 378D. Assessment Practices in Autism and Developmental Disabilities.**

Assessment practices for developing and evaluating educational programs for individuals with autism and developmental disabilities. Considers the theoretical orientations that underlie the major assessment strategies, including standardized, behavioral, and informal practices. Three lecture hours and three hours of fieldwork a week for one semester. Required for students seeking special education

certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

### **SED 378E. Advanced Early Childhood Intervention.**

Designed to assist students in acquiring in-depth knowledge of early childhood intervention, particularly related to services within the state of Texas, including an understanding of the legal policies related to serving young children with disabilities and their families. Three lecture hours and eight hours of fieldwork a week for one semester. Required for students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

### **SED 378R. Reading Assessment and Development with Diverse Populations.**

The knowledge and skills associated with assessing, instructing, and monitoring the progress of students who experience mild to moderate difficulties with reading, as well as students with dyslexia. The emphasis is on reading, spelling, and writing for kindergarten through grade five. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

### **SED 378S. Teaching Individuals with Autism and Developmental Disabilities.**

Assessment and instructional strategies for educating students with autism and other developmental and physical disabilities. Focuses on implementation and evaluation of instructional procedures for teaching a range of adaptive behaviors, such as self-care, and communication, social, and community living skills. Three lecture hours and eight hours of fieldwork a week for one semester. Required for students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

### **SED 378T. Topics in Special Education.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 1: Language-Minority Students in Special Education.** Additional prerequisite: Applied Learning and Development 322.

**Topic 6: Teaching Math to Students with Disabilities.** Special Education 378T (Topic: Tchng Math to Studnt Disabil) and 378T (Topic 6) may not both be counted.

**Topic 7: Autism Spectrum Disorder.** Explore Autism Spectrum Disorder (ASD) including the nature and diagnosis of ASD, available resources, and evidence-based practice service. Examine strategies implemented by professionals to help families and children navigate their environment and create a more inclusive and supportive environment for persons with ASD. Conducted in Spanish.

### **SED 379. Seminar in Special Education.**

Specialized study in an identified area of interest in education of the exceptional child. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Applied Learning and Development 322 and consent of the undergraduate adviser.

### **SED 293, 393. Graduate Seminar in Special Education.**

Discussion of critical issues; critiques of literature; development of theories and models regarding disabling conditions. The equivalent of three class hours a week for one semester. Special Education 380 and 393 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences; and consent of instructor.

**Topic 17: Instructional Designs Using Assistive Technology.** The design of instruction for students with disabilities by using assistive and instructional technologies.

**Topic 18: Collaboration.** Strategies such as collaborative consultation and teamwork models, which are used to improve learning outcomes for students with diverse learning needs.

**Topic 20: Applied Research.** Special Education 393 (Topic 5) and 393 (Topic 20) may not both be counted.

## Graduate Courses

### SED 380. Multicultural Special Education.

Study of critical issues in culture, language, and disability. Three lecture hours a week for one semester. Special Education 380 and 393 may not both be counted unless the topics vary. Special Education 380 and 395 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, sociology, or other behavioral sciences; and consent of instructor; additional prerequisites vary with the topic.

**Topic 1: Language Acquisition and Assessment in Multicultural Special Education.** Language acquisition among culturally and linguistically diverse learners in general and special education, with emphasis on effective assessment and instruction.

**Topic 4: Assessment in Multicultural Special Education.** Cultural and linguistic factors related to the assessment of language-minority students; the best practices in psychoeducational procedures.

**Topic 6: Advanced Research Topics in Multicultural Special Education.** Current and emerging research on individuals with disabilities who are from culturally and linguistically diverse backgrounds. Provides students with opportunities to review research literature on topics of interest to them, and to explore their writing skills. A process approach to writing is used to familiarize students with the APA guidelines for preparing scholarly manuscripts.

**Topic 7: Cross-Cultural Interactions in Multicultural Special Education.** Introduction to principles of intercultural communication for educators. Emphasis on strategies for effective cross-cultural communication in a variety of educational settings, including general and special education.

**Topic 8: School-Community Relations in Multicultural Special Education.** Traditional methods of parent and school relations; emerging and innovative models for communication between the school and the community; the intent of the course is to explore school-community interactions in the context of the dynamics of culture, race, language, politics, history, economics, and religion.

**Topic 9: Development of Personnel Preparation and Programming in Multicultural Special Education.** Designed to prepare students to develop standards-based multicultural personnel preparation programs that emphasize research-based practices and that improve student outcomes and promote recruitment, retention, and quality of personnel for teaching culturally and linguistically diverse populations with disabilities in pluralistic settings.

**Topic 11: Educational Planning for Multicultural Special Education.**

**Topic 12: Educational Leadership in Multicultural Special Education.** Overview of issues affecting equal access to quality education for culturally and linguistically diverse learners with disabilities.

**Topic 13: Sociocultural Foundations of Special Education.** An in-depth examination of key knowledge, including sociocultural theory and conceptual models, used in teaching culturally and linguistically diverse students with disabilities in special education and inclusive settings.

**Topic 15: Addressing Critical Questions in Special Education Using National Datasets.** Considers how the federal government and local educational agencies collect a range of data on the educational experiences of children, including those with disabilities and

special needs. Analyzes how these large datasets provide a unique opportunity to examine not only macro-level trends in identification rates, racial disparities, and student achievement, but also the influence of school and home contextual factors. Examines how to use these datasets and address important questions in special education today. Explores how to access, prepare, and analyze these datasets. Additional prerequisite: Consent of the graduate adviser.

**Topic 16: Second Language Literacy Development and Assessment.** Examines essential concepts related to language and literacy. Discussion of past and present sociocultural factors that impact research in terms of both what is researched and how it is researched and the implications of that research on instruction and assessment. Analyzes the socio-cultural foundations of schooling and society to better understand the complex, dynamic interrelationships between culture, language, literacy, and disability.

**Topic 17: Diversity and Disability: Contemporary Perspectives.**

**Topic 18: Cultural and Linguistic Diversity.** An overview of issues, problems, and emerging practices related to culturally and linguistically diverse students served in special education. Special Education 380 (Topic 10) and 380 (Topic 18) may not both be counted.

### SED 383. Learning Disabilities.

Nature of the characteristics of learning disabilities and their effect on learning; assessment and progress monitoring measures; and individualized, differentiated strategies, interventions, technologies, and materials. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences, including a course in special education; and consent of instructor; additional prerequisites vary with the topic.

**Topic 1: Introduction to Learning Disabilities.** Basic terms and definitions, the nature of specific learning disorders, theoretical models, and empirical classification systems.

**Topic 6: Teaching Students with Dyslexia and Reading Difficulties.** Theories and practices associated with dyslexia; terminology, assessment, and remedial strategies are emphasized.

**Topic 7: Assessment in Special Education.** The basic concepts related to the assessment of exceptional individuals.

**Topic 10: Intensive Interventions for Students with Reading Disabilities.** Design, implementation, and evaluation of instruction for elementary- and secondary-level students with mild to moderate disabilities who receive special education services for reading. Special Education 383 (Topic 8) and 383 (Topic 10) may not both be counted.

**Topic 11: Intensive Interventions for Students with Math Disabilities.** Issues in the education of students with mild to moderate disabilities, including assessing students, evaluating instruction and instructional materials, and adapting and implementing instruction with an emphasis on math. Special Education 383 (Topic 9) and 383 (Topic 11) may not both be counted.

### SED 383C, 983C. High Incidence Disabled Student Teaching.

Nature of the characteristics of learning disabilities and their effect on learning; assessment and progress monitoring measures; and individualized, differentiated strategies, interventions, technologies, and materials. For each hour of credit earned, one lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences, including a course in special education; and consent of instructor.

### SED 384. Early Childhood Special Education.

Education variables related to educational services and research for young children are investigated in terms of etiology, assessment, curriculum models, educational settings, and interdisciplinary

programming. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences, including a course in special education; and consent of instructor; additional prerequisites vary with the topic.

**Topic 1: Overview of Early Childhood Special Education.** The educational and emotional needs of young disabled children (birth to age six) and the techniques for implementing a "whole child" educational approach to meet the needs of the child and the family.

**Topic 3: Parent Education Models.** The grief stages of parents; parent involvement models available to promote optimum parent-child and parent-professional relationships.

**Topic 4: Practicum in Early Childhood Special Education.** Teaching experience with disabled children in a center setting. Assessment and curriculum procedures are applied in developing an appropriate education for an individual child or small groups of children.

**Topic 5: Advanced Practicum in Early Childhood Special Education.** Teaching experience with a large group of children in a center setting. Program management and evaluation procedures are applied to a total curriculum, so that the student assumes a lead teacher and/or consultant role during training.

**Topic 6: Assessment and Programming of Early Childhood Special Education.** Experience in assessing a disabled child in a naturalistic setting. Formal and informal assessment procedures for children from birth through age six.

**Topic 7: Medical/Educational Overview: Birth to Age Three.** Overview of hospital-to-school early intervention techniques for meeting the medical and educational needs of preterm, low-birth-weight, and at-risk children and their parents.

**Topic 8: Medical/Educational Parent Education and Involvement: Birth to Age Three.** Research, design, and implementation of a functional child-parent program. Students develop their own programs for working with parents of children with specific problems or disabilities.

**Topic 9: Medical/Educational Assessment: Birth to Age Three.** Experience planning, assessing, and implementing educational programs for at-risk infants and toddlers. Emphasis is on interagency coordination and the use of the transdisciplinary team to meet the family's and the child's needs with a minimum of personnel.

**Topic 10: Medical/Educational Programming: Birth to Age Three.** Medical information on pre-, peri-, and postnatal effects of medical problems and extended hospital stays. Impact of medical intervention on the infant's and the family's development.

**Topic 11: Medical/Educational Practicum in Early Childhood Special Education.** Early intervention in a neonatal intensive care unit or on a follow-up team for medically fragile high-risk children.

**Topic 13: Early Language Intervention.**

**Topic 14: Family Support and Intervention.**

**Topic 16: Medical and Educational Assessment and Intervention.**

**Topic 17: Functional Motor and Vision Assessment and Intervention.**

### **SED 386. Behavioral Disorders.**

Discussion of behavioral disorders, contributory factors; psychological and educational diagnoses applied to educational programming. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences, including a course in special education; and consent of instructor; additional prerequisites vary with the topic.

**Topic 10: Introduction to Behavioral Disorders.** Introduction to the nature and needs of children with behavior disorders and to effective management methods and teaching strategies. The admission, review, and dismissal process is described and practiced so that students can work as members of an interdisciplinary team.

**Topic 11: Positive Behavioral Interventions Support and Classroom Management.** Study of the basic principles of human behavior, and the application of those principles to teaching positive behavior support and designing effective classrooms. Designed to prepare teachers and clinicians who will be in general and special education settings with children of all ages with and without disabilities.

**Topic 13: Educating Students with Significant Behavioral Support Needs.** Designed to provide students with an overview of promising and preferred practices for educating children and youth with emotional and behavioral disorders (EBD). Emphasis on children and youth whose behaviors challenge the prevailing social and educational traditions and values of schools, communities, and families.

### **SED 387. Rehabilitation Counseling.**

Study of rehabilitation counseling: basic orientation and process and procedures; related biomedical, psychological, and community aspects; specialized programs and field experiences. Three lecture hours a week for one semester; or meetings as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, sociology, or other behavioral sciences; and consent of instructor; additional prerequisites vary with the topic.

### **SED 388. Autism and Developmental Disabilities.**

An intensive study of the psychological, sociological, physiological, and educational factors relating to the assessment, learning, and teaching of children with autism and other developmental disabilities. Includes affective, cognitive, and psychomotor development of individuals with physical disabilities. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences, including a course in special education; and consent of instructor; additional prerequisites vary with the topic.

**Topic 3: Teaching Individuals with Autism and Developmental Disabilities.** Development of highly specialized skills needed to teach those with developmental disabilities. Emphasis is on the basic principles of learning that underlie effective instructional strategies and on ways to structure the environment to promote learning.

**Topic 5: Enhancing Communication Potential in People with Autism and Developmental Disabilities.** Communication intervention for those with developmental disabilities. Designed to help students learn to assess communication behavior and to create intervention programs that enhance existing communication skills and teach new skills. Hands-on experience with a variety of augmentative and alternative communication systems.

**Topic 6: Educational Implications of Autism and Developmental Disabilities.** Introduction to the learning and behavioral characteristics of those with developmental disabilities, including autism and related developmental disorders. Designed to give students an understanding of the educational needs of those with developmental disabilities and of ways to address those needs through special education and related services.

**Topic 7: Challenging Behavior and Developmental Disabilities.** The nature, assessment, and treatment of the challenging behaviors that are prevalent in individuals with developmental disabilities, such as aggression, self-injury, property destruction, tantrums, and stereotyped movements.

**Topic 8: Research on Inclusion for Students with Autism and Developmental Disabilities.** Literature relevant to the inclusion of students with developmental disabilities, including classic readings on the history and philosophy of inclusion; analysis of the evidence

supporting current best-practice models. Emphasis on critical reading of empirical studies on the efficacy of inclusive education.

**Topic 9: Assessment Research in Autism and Developmental Disabilities.** Research related to the assessment of students with developmental disabilities, examined in the context of the theoretical orientations that underlie the major assessment strategies. Includes a review of studies related to the development and validation of contemporary assessment instruments and discussion of the scientific process involved in developing and validating assessment tools.

**Topic 10: Advances in the Understanding and Treatment of Autism.** Review of recent advances in the understanding and treatment of autism and related developmental disorders. The social forces that shape research and scientific understanding and the political forces that influence the delivery of education and related services, as well as implications for effective leadership in special education.

**Topic 11: Intervention Research in Autism and Developmental Disabilities.** How research is used to develop interventions for those with developmental disabilities. Students consider the role of basic research and theory in the development of interventions and the use of experimental design to demonstrate the effectiveness of an intervention program, explore the development of empirically validated intervention programs, and undertake qualitative and quantitative reviews of intervention research.

**Topic 13: Practicum in Severe and Multiple Disabilities.**

**Topic 14: Practicum in Professional & Ethical Practices.**

### **SED 389. Special Education Administration.**

Study of the content and process of special education administration, including technological forecasting methods, case law as it applies to people with disabilities, management of problem employee styles, and related topics. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences, including a course in special education; and consent of instructor.

**Topic 1: Administration of Special Education Programs.** Application of principles of administration and leadership to problems associated with special education and instruction for special populations.

**Topic 2: Educational Futures.** Students are directed toward career goals: affective change toward the future and change processes; acquisition of knowledge about several technological forecasting methods and of skill in the use of one method.

**Topic 3: Special Education Administration Seminar: Current Issues in Special Education.**

**Topic 4: Law and Disabilities.** An examination of case law that covers definitions, equal educational opportunity, employment, accessibility, freedom of choice, freedom from residential confinement, housing and zoning restrictions, equal access to medical services, procreation, marriage, children, contracts, ownership and transfer of property, voting, and holding public office.

**Topic 5: Special Populations.** Leadership issues associated with serving school-age children through federal and state "title" programs, including English as a second language, bilingual education, and Chapters I and II. Also covered are alternative schools; programs for juvenile offenders, pregnant students and young mothers, and at-risk students such as those who have potential for suicide; and services for the homeless, the abused, and chemical abusers. Students read the significant literature and develop knowledge and skill in planning and designing delivery models.

### **SED 293, 393. Graduate Seminar in Special Education.**

Discussion of critical issues; critiques of literature; development of theories and models regarding disabling conditions. The equivalent of

three class hours a week for one semester. Special Education 380 and 393 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences; and consent of instructor.

**Topic 17: Instructional Designs Using Assistive Technology.** The design of instruction for students with disabilities by using assistive and instructional technologies.

**Topic 18: Collaboration.** Strategies such as collaborative consultation and teamwork models, which are used to improve learning outcomes for students with diverse learning needs.

**Topic 20: Applied Research.** Special Education 393 (Topic 5) and 393 (Topic 20) may not both be counted.

### **SED 394, 694. Practicum in Special Education.**

Supervised field placement in specialized settings serving exceptional children and youth. Conference course; for each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **SED 395. Independent Study.**

Individual research planned, executed, and reported under supervision. Conference course. Special Education 380 and 395 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Admission to an approved program of graduate study or to candidacy for the doctoral degree in education, or graduate standing and consent of instructor; additional prerequisites vary with the topic.

**Topic 1: Independent Study in Special Education Administration.**

**Topic 2: Independent Study in Behavioral Disorders.**

**Topic 4: Independent Study in Learning Disabilities.**

**Topic 7: Independent Study in Early Childhood Special Education.**

**Topic 8: Independent Study in Autism and Developmental Disabilities.**

**Topic 15: Independent Study in Multicultural Special Education.**

### **SED 395D. Doctoral Seminar in Special Education and Rehabilitation Counselor Education.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Admission to an approved program of graduate study or to candidacy for the doctoral degree in education, and consent of instructor; additional prerequisites vary with the topic.

**Topic 2: Seminar in Behavioral Disorders.**

**Topic 3: Seminar in Learning Disabilities.**

**Topic 5: Early Childhood Special Education.**

**Topic 6: Autism and Developmental Disabilities.**

**Topic 7: Multicultural Special Education.**

### **SED 695S. Professional Seminar.**

Forum for students to become familiar with the areas of study, research, and professional practice within special education. Students also refine their professional writing and communication skills, critically evaluate current and emerging research in the field, and examine the historical, legal, philosophical, and theoretical foundations of special education. Three lecture hours a week for two semesters. Required of all doctoral students. Prerequisite: For 695SA, graduate standing and admission to the doctoral program in special education; for 695SB, Special Education 695SA.

### **SED 696. Research Mentoring.**

Designed to develop the knowledge and skills students need in order to conduct research. Under the supervision of a three-member committee, students develop a publishable-quality synthesis of the professional

literature on a topic related to their research interests. Conference course. Required of all doctoral students prior to admission to candidacy. Offered on the credit/no credit basis only. Prerequisite: For Special Education 696A, graduate standing, completion of specialization core requirements, at least three graduate courses in research methods and data analysis, and consent of the graduate adviser; for Special Education 696B, 696A.

### **SED 396C. Trends and Issues in Special Education and Rehabilitation Counseling.**

An examination of current trends and issues in areas within special education and rehabilitation counselor education that influence policies and procedures in the public schools, teacher preparation programs, and community agencies. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, sociology, or other behavioral sciences; and consent of instructor; additional prerequisites vary with the topic.

**Topic 1: Trends and Issues in Early Childhood Special Education.**

**Topic 2: Trends and Issues in Learning Disabilities/Behavioral Disorders.**

**Topic 5: Trends and Issues in Special Education Administration.**

**Topic 7: Trends and Issues in Autism and Developmental Disabilities.**

### **SED 396R. Research Methods and Data Analysis.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twelve semester hours of upper-division coursework in education, and consent of instructor.

**Topic 1: Research Methodology in Special Education.**

**Topic 2: Single-Subject Research Design.** The use of single-subject research designs to make data-based decisions about program effectiveness and student outcomes; integration of applied research into classroom instruction as part of evidence-based professional practice in educating students with severe and multiple disabilities.

**Topic 3: Advanced Data Analysis in Special Education.**

### **SED 396T. Directed Research in Special Education.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, twelve semester hours of upper-division coursework in education, and consent of instructor.

**Topic 1: Directed Research in Special Education Administration.**

**Topic 2: Directed Research in Behavioral Disorders.**

**Topic 4: Directed Research in Learning Disabilities.**

**Topic 7: Directed Research in Early Childhood Special Education.**

**Topic 8: Directed Research in Severe and Multiple Disabilities.**

**Topic 13: Directed Research in Multicultural Special Education.**

### **SED 397C. Advanced College Teaching.**

Supervised teaching experience at the college level. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, admission to an approved program of graduate study or admission to candidacy for the doctoral degree in special education, Special Education 398T, and consent of the graduate adviser.

### **SED 397P, 697P. Graduate Internship.**

Supervised practice in a professional position. The equivalent of three or six lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, twelve semester hours of upper-division coursework in education, and consent of instructor.

### **SED 397S. Supervised Teaching in Special Education.**

Instruction in the supervision of student teachers and observers at the undergraduate level. Conference course. Prerequisite: Graduate standing, appointment as a teaching assistant and supervisor of undergraduate student teachers, and consent of instructor.

### **SED 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in special education and consent of the supervising professor and the graduate adviser; for 698B, Special Education 698A.

### **SED 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in special education and consent of the graduate adviser.

### **SED 398T. College Teaching in Special Education.**

Three lecture hours a week for one semester. Required for teaching assistants and assistant instructors. Prerequisite: Graduate standing.

### **SED 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

### **SED 293, 393. Graduate Seminar in Special Education.**

Discussion of critical issues; critiques of literature; development of theories and models regarding disabling conditions. The equivalent of three class hours a week for one semester. Special Education 380 and 393 may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; twelve semester hours of upper-division coursework in education, psychology, or other behavioral sciences; and consent of instructor.

**Topic 17: Instructional Designs Using Assistive Technology.** The design of instruction for students with disabilities by using assistive and instructional technologies.

**Topic 18: Collaboration.** Strategies such as collaborative consultation and teamwork models, which are used to improve learning outcomes for students with diverse learning needs.

**Topic 20: Applied Research.** Special Education 393 (Topic 5) and 393 (Topic 20) may not both be counted.

## **Speech, Language, and Hearing Sciences Courses**

### **Speech, Language, and Hearing Sciences: SLH**

#### **Lower-Division Courses**

#### **SLH 306K. Introduction to Speech, Language, and Hearing Sciences.**

Introduction to the study of processes and disorders of speech, language, and hearing. Three lecture hours a week for one semester. Communication Sciences and Disorders 306K and Speech, Language, and Hearing Sciences 306K may not both be counted.

#### **SLH 308K. Perspectives on Deafness.**

Examine deafness from a number of perspectives: social and psychological meanings of deafness, the deaf community, education of

deaf children, sign languages, and historical trends. Three lecture hours a week for one semester. Communication Sciences and Disorders 308K and Speech, Language, and Hearing Sciences 308K may not both be counted.

### **SLH 311K. Phonetic Description of Speech.**

Examine speech production, physiological analysis and description of speech sounds, voice quality, and voice dynamics; notation; phonetic theory; applications of phonetics. Three lecture hours a week for one semester. Communication Sciences and Disorders 311K and Speech, Language and Hearing Sciences 311K may not both be counted.

### **SLH 312. Developmental Language Science.**

Introduction to language and literacy development from birth through adolescence. Three lecture hours a week for one semester. Communication Sciences and Disorders 312 and Speech, Language, and Hearing Sciences 312 may not both be counted. Prerequisite: Credit or registration for Speech, Language, and Hearing 118L (or Communication Sciences and Disorders 118L).

### **SLH 313L. Hearing Science.**

Examine acoustical, physiological, and psychological bases of normal human hearing. Explore theories of audition. Three lecture hours a week for one semester. Communication Sciences and Disorders 313L and Speech, Language, and Hearing Sciences 313L may not both be counted. Prerequisite: Credit or registration for Speech, Language, and Hearing 113P (or credit for Communication Sciences and Disorders 113P).

### **SLH 113P. Hearing Science: Laboratory.**

Examine laboratory techniques in hearing science research. One-and-one-half laboratory hours a week for one semester. Communication Sciences and Disorders 113P and Speech, Language, and Hearing Sciences 113P may not both be counted.

### **SLH 314L. Sociocultural Bases of Communication.**

An introduction to the influences of social and cultural factors, such as ethnicity, socioeconomic status, and geographic region, on communication acquisition and use, with a focus on cross-cultural communication issues in a diverse society. Three lecture hours a week for one semester. Communication Sciences and Disorders 314L and Speech, Language, and Hearing Sciences 314L may not both be counted.

### **SLH 315S. Speech Science.**

Same as Linguistics 315. Neurophysiological mechanisms underlying the encoding and decoding of speech. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 315S, 358S, Linguistics 315, 358S, Speech, Language, and Hearing Sciences 315S.

### **SLH 118L. Development Language Science: Laboratory.**

Examine child language in a clinical laboratory setting. One-and-one-half laboratory hours a week for one semester. Communication Sciences and Disorders 118L and Speech, Language, and Hearing Sciences 118L may not both be counted.

### **SLH 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Speech, Language, and Hearing Sciences.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **SLH 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Speech, Language, and Hearing Sciences.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **SLH 331E. Instructional Methods for Deaf Students.**

Restricted to communication sciences and disorders majors and speech, language, and hearing sciences majors. Examine methods of assessment, curriculum organization, lesson planning, instruction, and classroom management in education of deaf children. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 331E; Curriculum and Instruction 331E; Speech, Language, and Hearing Sciences 331E. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; completion of at least seventy-two hours of University coursework; American Sign Language 610D (or 312K); and a minimum University grade point average of 2.50.

### **SLH 340P. Clinical Observation in Speech Language Pathology.**

Restricted to communication sciences and disorders majors and speech, language and hearing sciences majors. Explore evidence-based practice in speech and language pathology through guided observation. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 140P, 340P, Speech, Language and Hearing Sciences 340P. Prerequisite: Upper-division standing.

### **SLH 341. Principles of Audiology.**

Explore the causes of hearing disorders and examine diagnostic procedures and treatment. Three lecture hours a week for one semester. Communication Sciences and Disorders 341 and Speech, Language, and Hearing Sciences 341 may not both be counted. Prerequisite: Upper-division standing and Speech, Language, and Hearing Sciences 313L (or Communication Sciences and Disorders 313L) with a grade of at least C-.

### **SLH 350. Language and the Brain.**

Same as Linguistics 350C. Explore the neuroanatomical and functional operations of the major brain structures that underlie speech/language. Examine hemispheric dominance for language, neurological and language breakdowns in aphasia, and brain imaging methods and studies of language representation. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 350; Linguistics 350 (Topic 1); Linguistics 350C; Speech, Language, and Hearing Sciences 350. Prerequisite: Upper-division standing.

### **SLH 352. Topics in Speech, Language, and Hearing Sciences.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

**Topic 1: Bilingualism: Language Development and Disorders.** Examine bilingual language development and the manifestation of speech and language disorders in bilingual children with a special focus on Spanish-English bilingualism. Explore disorder areas including developmental language disorders, speech sound disorders, fluency, and reading disabilities. Consider bilingual language development in cultural and linguistic contexts. Discuss communication disorders

including evidence-based practices in interventions for bilingual children. Communication Sciences and Disorders 352 (Topic 1) and Speech, Language, and Hearing Sciences 352 (Topic 1) may not both be counted.

**Topic 2: Augmentative and Alternative Communication.** Examine augmentative and alternative communication (AAC) approaches for individuals with severe communication impairments. Explore foundational information for providing or referring services in AAC. Only one of the following may be counted: Communication Sciences and Disorders 352 (Topic: Augmentatv/Alternatv Comm); 352 (Topic 2); Speech, Language, and Hearing Sciences 352 (Topic 2).

**Topic 3: Bilingualism Across the Lifespan.** Explore the consequences of bilingualism on brain and mind across the lifespan. Survey current issues related to bilingualism as they pertain to speech-language pathology. Three lecture hours a week for one semester. Additional prerequisite: Upper-division standing.

### **SLH 358. Anatomy and Physiology of the Speech and Hearing Mechanism.**

Examine the anatomy and physiology of structures involved in speech, language, hearing, and swallowing in-depth. Explore anatomical and physiological mechanisms of respiration, phonation, articulation, and hearing; and the central nervous system and blood supply to the speech and hearing mechanism. Three lecture hours a week for one semester. Communication Sciences and Disorders 358 and Speech, Language and Hearing Sciences 358 may not both be counted. Prerequisite: Upper-division standing and credit or registration for Speech, Language, and Hearing 158L (or credit for Communication Sciences and Disorders 158L).

### **SLH 158L. Anatomy and Physiology of Speech and Hearing: Laboratory.**

Examine anatomy and physiology of structures involved in speech, language, hearing, and swallowing in a laboratory setting. Explore anatomical and physiological mechanisms of respiration, phonation, articulation, and hearing; and the central nervous system and blood supply to the speech and hearing mechanism. One and one-half laboratory hours a week for one semester. Communication Sciences and Disorders 158L and Speech, Language and Hearing Sciences 158L may not both be counted. Prerequisite: Upper-division standing.

### **SLH 360M. Communication and Deaf People.**

Examine forms of face-to-face communication used with deaf people, including speech and listening, systems of manual communication, and natural sign language, with an emphasis on child development issues and the use of different methods in educational practice. Three lecture hours a week for one semester. Communication Sciences and Disorders 360M and Speech, Language, and Hearing Sciences 360M may not both be counted. Prerequisite: Upper-division standing and Speech, Language, and Hearing Sciences 308K (or Communication Sciences and Disorders 308K) with a grade of at least C-.

### **SLH 364. Deaf Education Internship.**

Restricted to communication sciences and disorders majors and speech, language, and hearing sciences majors. Explore deaf education through field experience at the Texas School for the Deaf or public school programs including directed observation and participation with teachers and students in the instructional process. The equivalent of three lecture hours a week for one semester, with additional field hours to be arranged. Only one of the following may be counted: Communication Sciences and Disorders 364, Curriculum and Instruction 364, 664, Speech, Language, and Hearing Sciences 364. Prerequisite: Upper-division standing; completion of a minimum of seventy-two hours of University coursework;

American Sign Language 610D (or 312K); a minimum University grade point average of 2.50.

### **SLH 367K. Introduction to Speech and Language Disorders Assessment and Treatment in Children.**

Restricted to communication sciences and disorders majors and speech, language, and hearing sciences majors. Introduction to assessment procedures and treatment strategies for children with speech and language disorders. Three lecture hours a week for one semester.

Communication Sciences and Disorders 367K and Speech, Language, and Hearing Sciences 367K may not both be counted. Prerequisite: The following coursework with a grade of at least C- in each: Speech, Language, and Hearing Sciences 306K (or Communication Sciences and Disorders 306K); 311K (or Communication Sciences and Disorders 311K); 313L (or Communication Sciences and Disorders 313L); 312 (or Communication Sciences and Disorders 312 or 318K); and 315S (or Communication Sciences and Disorders 315S or 358S) or Linguistics 315 (or 358S).

### **SLH 167M, 367M. Clinical Practicum in Speech-Language Pathology and Audiology.**

Restricted to communication sciences and disorders majors specializing in audiology or speech/language pathology and speech, language, and hearing sciences majors specializing in audiology or speech/language pathology. Engage in a supervised clinical practicum in speech-language pathology and audiology. For each semester hour of credit earned, one lecture hour and three practicum hours a week for one semester. No more than four hours of Communication Sciences and Disorders 167M; 367M; Speech, Language, and Hearing Sciences 167M; or 367M may be counted towards the Bachelor of Science in Communication Sciences and Disorders or Bachelor of Science in Speech, Language, and Hearing Sciences. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: For speech/language pathology majors: upper-division standing; Speech, Language, and Hearing Sciences 341 (or Communication Sciences and Disorders 341); Speech, Language, and Hearing Sciences 340P (or Communication Sciences and Disorders 340P), 367K (or Communication Sciences and Disorders 367K), or 371 (or Communication Sciences and Disorders 371); University grade point average of at least 3.00; and consent of instructor. For others: upper-division standing, Speech, Language, and Hearing Sciences 341 (or Communication Sciences and Disorders 341), University grade point average of at least 3.00, and consent of instructor.

### **SLH 370. Clinical Research.**

Supervised participation in clinical research internships. The equivalent of one lecture hour a week and three laboratory hours a week for one semester. Communication Sciences and Disorders 370 and Speech, Language, and Hearing Sciences 370 may not both be counted.

### **SLH 170N, 370N, 670N. Internship.**

Restricted to communication sciences and disorders majors and speech, language, and hearing science majors. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 170N, 370N, 670N, Speech, Language, and Hearing Sciences 170N, 370N, 670N. Prerequisite: Upper-division standing.

### **SLH 371. Introduction to Speech and Language Disorders Assessment and Treatment in Adults.**

Restricted to communication sciences and disorders majors and speech, language, and hearing sciences majors. Introduction to assessment procedures and treatment strategies for adults with speech and language disorders. Three lecture hours a week for one semester. Communication Sciences and Disorders 371 and Speech, Language, and Hearing Sciences 371 may not both be counted. Prerequisite:

The following coursework with a grade of at least C- in each: Speech, Language, and Hearing Sciences 306K (or Communication Sciences and Disorders 306K); 311K (or Communication Sciences and Disorders 311K), 313L (or Communication Sciences and Disorders 313L), and 350 (or Communication Sciences and Disorders 350); and 315S (or Communication Sciences and Disorders) or Linguistics 315 (or 358S).

### **SLH 373. Principles of Aural Rehabilitation.**

Restricted to communication sciences and disorders majors and speech, language, and hearing sciences majors. Examine the rationale, methods, materials, procedures, and criteria for aural rehabilitation for hearing-impaired persons. Three lecture hours a week for one semester. Communication Sciences and Disorders 373 and Speech, Language, and Hearing Sciences 373 may not both be counted. Prerequisite: Upper-division standing and the following coursework with a grade of at least C- in each: Speech, Language and Hearing Sciences 306K or 308K (or Communication Sciences and Disorders 306K or 308K); 311K (or Communication Sciences and Disorders 311K); 313L (or Communication Sciences and Disorders 313L); 341 (or Communication Sciences and Disorders 341); and 315S (or Communication Sciences and Disorders 315S) or Linguistics 315 (or 358S).

### **SLH 175N. Deaf Education Seminar.**

Discuss social, political, and educational aspects of deafness. One lecture hour a week for one semester. Communication sciences and disorders majors and speech, language, and hearing sciences majors specializing in education of the deaf and hearing-impaired may count no more than four semester hours in this course toward the degree; communication sciences and disorders majors and speech, language, and hearing sciences majors specializing in audiology or specializing in speech-language pathology may count no more than two semester hours in this course toward the degree; other students with majors in the Moody College of Communication may count no more than one semester hour in this course toward the degree. May be repeated for credit.

### **SLH 378. Clinical Audiology.**

Explore differential diagnostic procedures for evaluation of auditory disorders. Examine theoretical concepts and clinical applications. One lecture hour a week and three lab hours a week for one semester. Communication Sciences and Disorders 378 and Speech, Language, and Hearing Sciences 378 may not both be counted. Prerequisite: Upper-division standing and Speech, Language, and Hearing Sciences 341 (or Communication Sciences and Disorders 341).

### **SLH 378C. Experiential Learning in Clinical Research.**

Explore experiential learning opportunities within the clinical environment observe clinical research, connect concepts, and reflect on processes that promote translation of theory to practice for stuttering and/or cluttering. The equivalent of one lecture hour and three laboratory hours a week for one semester. Communication Sciences and Disorders 378C and Speech, Language, and Hearing Sciences 378C may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper division standing and consent of the instructor.

### **SLH 378D. Quality of Life in Clinical Care.**

Engage in an intensive experiential learning opportunity that emphasizes the positive role of counseling, empathy, self-compassion, and the therapeutic alliance in clinical care for persons who stutter and/or clutter and their loved ones. The equivalent of one lecture hour a week and three laboratory hours a week for one semester. Communication Sciences and Disorders 378D and Speech, Language and Hearing Sciences 378D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper division standing and consent of instructor.

### **SLH 178K, 278K, 378K. Studies in Speech Language Pathology, Audiology.**

Restricted to communication sciences and disorders majors and speech, language, and hearing sciences majors. Supervised individual research. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only three semester hours may count toward a degree in the Moody College of Communication. No more than three semester hours may be taken on the letter-grade basis. Prerequisite: Upper-division standing; a University grade point average of 3.00; and consent of instructor.

### **SLH 178L. Clinical Laboratory Experience in Audiology.**

Examine audiology in a clinical laboratory setting. One and one-half laboratory hours a week for one semester. Communication Sciences and Disorders 178L and Speech, Language, and Hearing Sciences 178L may not both be counted. Prerequisite: Upper-division standing.

## **Graduate Courses**

### **SLH 180E, 280E, 380E, 480E. Conference Course.**

Examine readings in the literature of speech, language, and hearing sciences designed to expand opportunity for individual consultation both in research and in informational aspects of the work. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **SLH 181L, 281L, 381L. Clinical Practicum.**

Engage in a supervised clinical practicum in speech, language, and hearing sciences. Three, six, or nine clinical teaching hours and one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **SLH 383C. Augmentative and Alternative Communication.**

Examine an overview and a critical analysis of augmentative and alternative communication approaches and how they can best be used for the benefit of individuals with severe communication impairments. Three lecture hours and one-half laboratory hour a week for one semester. Communication Sciences and Disorders 383C and Speech, Language, and Hearing Sciences 383C may not both be counted. Prerequisite: Graduate standing.

### **SLH 383N. Topics in Speech, Language, and Hearing Sciences for Doctoral Studies.**

Selected topics on speech, language, and hearing sciences will be explored through reading of current research in the field. Topics include developmental language disorders, speech and language perception, speech production, fluency disorders, dysphagia, neural bases of adult communication disorders, bilingualism, advanced auditory research, and augmentative and alternative communication. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **SLH 385F. Knowledge and Skills in Clinical Science I.**

Develop the knowledge and skills needed in clinical areas across the scope of practice and lifespan. Three lecture hours a week for one semester. Communication Sciences and Disorders 385F and Speech, Language, and Hearing Sciences 385F may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

### **SLH 385S. Knowledge and Skills in Clinical Science II.**

Develop the knowledge and skills needed in clinical areas across the scope of practice and lifespan. Three lecture hours a week for one semester. Communication Sciences and Disorders 385S and Speech, Language, and Hearing Sciences 385S may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser.

**SLH 386F. Fundamental Principles in Clinical Practicum.**

Practice the fundamental knowledge and skills in speech language pathology. One lecture hour and nine practicum hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of the graduate adviser.

**SLH 386N. Research Methods.**

Examine the strategies and methodology in the design and analysis of research in speech, language, and hearing sciences. Three lecture hours a week for one semester. Communication Sciences and Disorders 386N and Speech, Language, and Hearing Sciences 386N may not both be counted. Prerequisite: Graduate standing.

**SLH 386R. Advanced Research Design and Statistics.**

Explore various aspects of research design and analysis that are commonly practiced within the field of speech-language pathology and audiology. Three lecture hours a week for one semester. Communication Sciences and Disorders 386R and Speech, Language, and Hearing Sciences 386R may not both be counted. Prerequisite: Graduate standing.

**SLH 386S, 686S, 986S. Advanced Applications in Clinical Practicum.**

Apply the developed advanced knowledge and skills in speech language pathology. For each semester hour of credit earned, one lecture hour a week for one semester; some practicums require up to thirty-nine hours of fieldwork a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of the graduate adviser.

**SLH 391C. Cultural and Linguistic Diversity.**

Examine cultural and linguistic diversity in persons with communication disorders. Three lecture hours a week for one semester. Communication Sciences and Disorders 193E, 293E, 393E (Topic 10), and Speech, Language, and Hearing Sciences 391C may not both be counted. Prerequisite: Graduate standing.

**SLH 391D. Cognitive and Linguistic Foundations of Language Development and Disorders.**

Examine a framework for understanding the cognitive and linguistic mechanisms that underlie language development and disorders, including linguistic and psycholinguistic theories of language development. Three lecture hours a week for one semester. Communication Sciences and Disorders 193E, 293E, 393E (Topic 7) and Speech, Language and Hearing Sciences 391D may not both be counted. Prerequisite: Graduate standing.

**SLH 391P. Anatomy and Physiology of the Auditory System.**

Explore the structure and function of the auditory system, including hearing and balance mechanisms. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 391P, 391Q, Speech, Language, and Hearing Sciences 391P, 391Q. Prerequisite: Graduate standing.

**SLH 392C. Counseling.**

Examine both speech-language pathology and audiology counseling roles when implementing patient-centered and family-centered care in a variety of settings. Two lecture hours and one-and-one-half laboratory hours a week for one semester. Only one of the following may be counted: Communication Science and Disorders 392C, 392Q, Speech, Language, and Hearing Sciences 392C, 392Q. Prerequisite: Graduate standing.

**SLH 392S. Speech Perception: Theories and Clinical Aspects.**

Examine an overview of theories and research findings related to human speech perception and recognition including acoustic characteristics of speech categorical perception, infant speech perception, and effects of hearing loss. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 392P, 392S, and Speech, Language, and Hearing Sciences 392P, 392S. Prerequisite: Graduate standing.

**SLH 393D. Dysphagia.**

Examine anatomy and physiology relevant to normal swallowing in adults and pediatrics, as well as pathophysiology associated with dysphagia of differing etiologies. Explore various methods to evaluate swallowing function, and practice beginner-level clinical interpretation, with an emphasis on evidence-based practice for dysphagia management. Three lecture hours a week for one semester. Communication Sciences and Disorders 193E, 293E, 393E (Topic 1) and Speech, Language, and Hearing Sciences 393D may not both be counted. Prerequisite: Graduate standing.

**SLH 393F. Stuttering, Cluttering, and Typical Disfluency.**

Review theories, research, and emerging evidence pertaining to stuttering, cluttering and typical disfluency and their translation to practice. Three lecture hours a week for one semester. Communication Sciences and Disorders 193D, 293D, 393D (Topic 3) and Speech, Language, and Hearing Sciences 393F may not both be counted. Prerequisite: Graduate standing.

**SLH 393G. Developmental Speech Disorders.**

Examine research in articulation and phonological development and the application of theories of development to assessment and intervention procedures with children with deficits in articulation and/or phonology. Three lecture hours a week for one semester. Communication Sciences and Disorders 193D, 293D, 393D (Topic 2) and Speech, Language, and Hearing Sciences 393G may not both be counted. Prerequisite: Graduate standing.

**SLH 393J. Acquired Cognitive Communication Disorders II.**

Examine the characteristics, assessment, and clinical management of acquired neurogenic disorders of cognition and communication, such as traumatic brain injury (TBI) and dementia. Three lecture hours a week for one semester. Communication Sciences and Disorders 393J and Speech, Language, and Hearing Sciences 393J may not both be counted. Prerequisite: Graduate standing.

**SLH 393M. Acquired Cognitive Communication Disorders I.**

Examine characteristics, assessment, and clinical management of acquired neurogenic disorders of cognition and communication, such as aphasia and right hemisphere disorders. Three lecture hours a week for one semester. Communication Sciences and Disorders 193E, 293E, 393E (Topic 3) and Speech, Language, and Hearing Sciences 393M may not both be counted. Prerequisite: Graduate standing.

**SLH 393P. Preschool Language Disorders.**

Examine communication deficits unique to children from birth to age five. Three lecture hours a week for one semester. Communication Sciences and Disorders 393P and Speech, Language, and Hearing Sciences 393P may not be counted both. Prerequisite: Graduate standing.

**SLH 393Q. Acquired Speech Disorders.**

Examine the neurological foundations of speech, speech disorders that can develop as a result of damage to the nervous system, and the ways in which motor speech disorders can be diagnosed and managed. Three lecture hours a week for one semester. Communication Sciences

and Disorders 193F, 293F, 393F (Topic 2) and Speech, Language, and Hearing Sciences 393Q may not both be counted. Prerequisite: Graduate standing.

### **SLH 393S. School-Age Language Disorders.**

Examine communication deficits unique to children age five and beyond. Three lecture hours a week for one semester. Communication Sciences and Disorders 393S and Speech, Language, and Hearing Sciences 393S may not both be counted. Prerequisite: Graduate standing.

### **SLH 393V. Voice Disorders.**

Examine normal and disordered voice production, as well as assessment and treatment of voice. Explore the anatomy and physiology of voice, pathologies of voice, instrumental and non-instrumental methods for voice assessment, and interdisciplinary voice management. Three lecture hours a week for one semester. Communication Sciences and Disorders 191D, 293D, 393D (Topic 1) and Speech, Language, and Hearing Sciences 393V may not both be counted. Prerequisite: Graduate standing.

### **SLH 394C. Amplifying Systems in Aural Rehabilitation.**

Examine the principles of hearing aid circuitry and looped systems, ear molds and their acoustic properties, and electroacoustic properties of hearing aids and selection procedures. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 394C, 394P, Speech, Language, and Hearing Sciences 394C, 394P. Prerequisite: Graduate standing, background in audiology coursework, and consent of instructor.

### **SLH 194D, 394D. Hearing Conservation.**

Examine auditory and non-auditory effects of noise; damage-risk criteria; federal and state laws governing noise and noise control; acoustic measurement procedures; identification audiometry; ear protection; and non-organic hearing loss and evaluative procedures. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 394D, 394Q, Speech, Language, and Hearing Sciences 194D, 394D, 194Q, 394Q. Prerequisite: Graduate standing.

### **SLH 394E. Auditory Electrophysiology.**

Review the auditory nervous system and evaluate electrodermal, electroencephalographic, and electrocardiographic audiometry in depth. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 394G, 394E, and Speech, Language, and Hearing Sciences 394G, 394E. Prerequisite: Graduate standing.

### **SLH 395M. Applied Machine Learning and Data Analytics.**

Introduction to the fundamental concepts of machine learning with a focus on its practical use for those who have no engineering or computer science background. Explore basic mathematics (e.g., vector and matrix), specialized programming skills (e.g., Matlab for data processing, visualization, and analysis), and other data analysis techniques (e.g., principal component analysis). Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **SLH 395N. Neurobiological Perspectives on Speech and Language.**

Explore an overview of sensory, motor, and neurophysiological correlates of speech and language. Examine neuroanatomy and neurophysiology of the human brain, with an emphasis on motor pathways, representation in the brain, neuroimaging, neurophonetic processing, and hemispheric specialization. Three lecture hours a week for one semester. Communication Sciences and Disorders 395N and

Speech, Language, and Hearing Sciences 395N may not both be counted. Prerequisite: Graduate standing.

### **SLH 396C. Advanced Amplifying Systems.**

Explore the fitting of advanced amplification systems, including digital hearing aids, frequency modulation and other wireless systems, and assistive listening devices. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 396C, 396Q, Speech, Language, and Hearing Sciences 396C, 396Q. Prerequisite: Graduate standing and Speech, Language, and Hearing Sciences 394C (or Communication Sciences and Disorders 394C).

### **SLH 396D. Auditory Processing Disorders.**

Examine the assessment and treatment of disorders of the central auditory nervous system in children and adults. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 381P, 396D, Speech, Language, and Hearing Sciences 381P, 396D. Prerequisite: Graduate standing.

### **SLH 396E. Advanced Auditory Electrophysiology.**

Explore advanced diagnostic tools, including acoustic immittance, otoacoustic emissions, auditory evoked potentials, intraoperative monitoring, and vestibular function. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 396E, 396R, Speech, Language, and Hearing Sciences 396E, 396R. Prerequisite: Graduate standing and Speech, Language, and Hearing Sciences 394E (or Communication Sciences and Disorders 394E).

### **SLH 396M. Signals and Systems in Hearing and Speech.**

Explore electrophysiological and electroacoustic procedures in the study of communication behaviors. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 396M, 396P, and Speech, Language, and Hearing Sciences 396M, 396P. Prerequisite: Graduate standing.

### **SLH 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in Communication Sciences and Disorders or Speech, Language, and Hearing Sciences and consent of the graduate adviser; for 698B: Communication Sciences and Disorders 698A or Speech, Language, and Hearing Sciences 698A.

### **SLH 398T. Supervised Teaching.**

Three lecture hours a week for one semester. Communication Sciences and Disorders 398T and Speech, Language, and Hearing Sciences 398T may not both be counted. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

### **SLH 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and admission to candidacy for the Doctoral degree.

## **Professional Courses**

### **SLH 381P. Auditory Processing Disorders.**

Examine the assessment and treatment of disorders of the central auditory nervous system in children and adults. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 381P, 396D, and Speech, Language, and Hearing Sciences 381P, 396D. Prerequisite: Graduate standing.

**SLH 383P. Surgically Implanted Auditory Prostheses.**

Explore how to determine candidacy for treatment, programming devices, and evaluating treatment outcomes associated with implantable hearing technologies. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 383P, 396G, Speech, Language, and Hearing Sciences 383P. Prerequisite: Graduate standing.

**SLH 388P. Basic Clinical Practicum in Audiology.**

Restricted to students in the Doctor of Audiology program. Examine the basic foundations of practice in clinical audiology. One lecture hour and nine practicum hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

**SLH 389P. Intermediate Clinical Practicum in Audiology.**

Restricted to students in the Doctor of Audiology program. Examine the intermediate methods and experiential learning in an immersive clinical audiology setting. One lecture hour and nine practicum hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

**SLH 390P. Advanced Clinical Practicum in Audiology.**

Restricted to students in the Doctor of Audiology program. Examine the advanced methods and experiential learning in an immersive clinical audiology setting. One lecture hour and nine practicum hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

**SLH 190Q, 390Q. Business Applications.**

Examine issues associated with the development, operation, and management of businesses devoted to service delivery in audiology and speech-language pathology. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 190J, 390J, 190Q, 390Q, Speech, Language, and Hearing Sciences 190Q, 390Q. Prerequisite: Graduate standing.

**SLH 391Q. Anatomy and Physiology of the Auditory System.**

Explore the structure and function of the auditory system, including hearing and balance mechanisms. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 391P, 391Q, and Speech, Language, and Hearing Sciences 391P, 391Q. Prerequisite: Graduate standing.

**SLH 392P. Speech Perception: Theories and Clinical Aspects.**

Examine an overview of theories and research findings related to human speech perception and recognition including acoustic characteristics of speech categorical perception, infant speech perception, and effects of hearing loss. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 392P, 392S, and Speech, Language, and Hearing Sciences 392P, 392S. Prerequisite: Graduate standing.

**SLH 392Q. Counseling.**

Examine both speech-language pathology and audiology counseling roles when implementing patient-centered and family-centered care in a variety of settings. Two lecture hours and one-and-one-half laboratory hours a week for one semester. Only one of the following may be counted: Communication Science and Disorders 392C, 392Q, Speech, Language, and Hearing Sciences 392C, 392Q. Prerequisite: Graduate standing.

**SLH 394G. Auditory Electrophysiology.**

Review the auditory nervous system and evaluate electrodermal, electroencephalographic, and electrocardiographic audiometry in depth. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 394E, 394G, and Speech, Language, and Hearing Sciences 394E, 394G. Prerequisite: Graduate standing.

**SLH 394K. Aural Habilitation.**

Examine both the pediatric and educational audiologist's roles when working with hard of hearing or deaf children and their families. Three lecture hours a week for one semester. Communication Sciences and Disorders 394K (Topic 1) and Speech, Language, and Hearing Sciences 394K may not both be counted. Prerequisite: Graduate standing.

**SLH 394P. Amplifying Systems in Aural Rehabilitation.**

Examine principles of hearing aid circuitry and looped systems; ear molds and acoustic properties thereof; electroacoustic properties of hearing aids and selection procedures. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 394C, 394P, Speech, Language, and Hearing Sciences 394C, 394P. Prerequisite: Graduate standing.

**SLH 194Q, 394Q. Hearing Conservation.**

Examine the auditory and nonauditory effects of noise; damage-risk criteria; federal and state laws governing noise and noise control; acoustic measurement procedures; identification audiometry; ear protection; and nonorganic hearing loss and evaluative procedures. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following be counted: Communication Sciences and Disorders 394D and 394Q, Speech, Language, and Hearing Sciences 194D, 394D, and 194Q, 394Q. Prerequisite: Graduate standing.

**SLH 394S. Medical Audiology.**

Explore audiologic implications of pathology and medical and/or surgical treatment of the ear; otologic diagnoses. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 394F, 394S, Speech, Language, and Hearing Sciences 394S. Prerequisite: Graduate standing.

**SLH 395D. Audiology, Culturally Deaf Individuals, and Education.**

Designed for graduate students in Audiology or Speech-Language Pathology. Explore aspects of deaf culture and community, Deaf/deaf identity and the experience of culturally deaf individuals, families of young deaf and hard of hearing children, and the educational system in which the children are educated. Three lecture hours a week for one semester. Only one of the following may be counted Communication Sciences and Disorders 395D, 395P, and Speech, Language, and Hearing Sciences 395D. Prerequisite: Graduate standing.

**SLH 395K. Psychoacoustics.**

Examine anatomy and physiology of the peripheral auditory system; behavioral measures of auditory performance-masking, sound localization, pitch and loudness perception, temporary and permanent hearing loss. Three lecture hours a week for one semester. Communication Sciences and Disorders 394K (Topic 2) and Speech, Language, and Hearing Sciences 395K may not both be counted. Prerequisite: Graduate standing.

**SLH 395Q. Pediatric Audiology.**

Explore current methods of testing the hearing of young children, including identification, electrophysiological and operant audiometry, and medical aspects of hearing loss in children. Three lecture hours a week for one semester. Only one of the following may be counted:

Communication Sciences and Disorders 395, 395Q, Speech, Language, and Hearing Sciences 395Q. Prerequisite: Graduate standing.

### **SLH 196K, 396K. Current Trends in Audiology.**

For each semester hour of credit earned, one lecture hour a week for one semester. Communication Sciences and Disorders 394K (Topic 3) and Speech, Language, and Hearing Sciences 196K, 396K may not both be counted. Prerequisite: Graduate standing; successful completion of deafness studies competency.

### **SLH 396P. Signals and Systems in Hearing and Speech.**

Explore electrophysiological and electroacoustic procedures in the study of communication behaviors. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 396M, 396P, and Speech, Language, and Hearing Sciences 396M, 396P. Prerequisite: Graduate standing.

### **SLH 396Q. Advanced Amplifying Systems.**

Explore the fitting of advanced amplification systems, including digital hearing aids, frequency modulation and other wireless systems, and assistive listening devices. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 396C, 396Q, and Speech, Language, and Hearing Sciences 396C, 396Q. Prerequisite: Graduate standing.

### **SLH 396R. Advanced Auditory Electrophysiology.**

Examine advanced diagnostic tools, including acoustic immittance, otoacoustic emissions, auditory evoked potentials, intraoperative monitoring, and vestibular function. Three lecture hours a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 396E, 396R, and Speech, Language, and Hearing Sciences 396E, 396R. Prerequisite: Graduate standing.

### **SLH 397, 697, 997. Clinical Externship in Audiology.**

Restricted to students in the Doctor of Audiology program. Engage in an intensive clinical experience in a work setting. For each semester hour of credit earned, one lecture hour a week for one semester; some practicums require up to thirty-nine hours of fieldwork a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **SLH 398Q. Research Project in Audiology.**

Conduct research while supervised by a faculty member. Read and integrate relevant literature. Prepare research results in a manuscript suitable for publication. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Only one of the following may be counted: Communication Sciences and Disorders 398P, 398Q, Speech, Language, and Hearing Science 398Q. Prerequisite: Graduate standing and Speech, Language, and Hearing Sciences 386N (or Communication Sciences and Disorders 386N).

## **Statistics and Data Sciences Courses**

### **Statistics and Data Sciences: SDS**

#### **Lower-Division Courses**

#### **SDS 301. Elementary Statistical Methods.**

Covers the fundamental procedures for data organization and analysis. Subjects include frequency distributions, graphical presentation, sampling, experimental design, inference, and regression. Three lecture hours a week for one semester. Only one of the following may be

counted: Educational Psychology 371, Mathematics 316, Statistics 309, 309H or Statistics and Data Sciences 301.

#### **SDS 302. Data Analysis for the Health Sciences.**

Basic probability and data analysis for the sciences. Subjects include randomness, sampling, distributions, probability models, inference, regression, and nonlinear curve fitting. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Statistics and Data Sciences 302, 303, 304, 305, 306, 328M. Statistics and Data Sciences 302 and 302F may not both be counted.

#### **SDS 302F. Foundations of Data Analysis.**

Introduction to data analysis and statistical methods. Subjects include random sampling; principles of observational study and experimental design; data summaries and graphics; and statistical models and inference, including the simple linear regression model and one-way analysis of variance. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Statistics and Data Sciences 302, 302F, 306.

#### **SDS 110T, 210T, 310T, 410T. Topics in Statistics and Computation.**

For each semester hour of credit earned, one lecture hour a week for one semester. Statistics and Data Sciences 110T and Statistics and Scientific Computation 110T may not both be counted. May be repeated for credit when the topics vary.

#### **SDS 311C. Numbering Race.**

Same as African and African Diaspora Studies 302M. Subjects include conceptualization and operationalization in quantitative measurement, the calculation and interpretation of descriptive statistics and statistical relationships, the application of statistical techniques to understand social phenomenon, and techniques for presenting results from quantitative analysis. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 302M, 317D (Topic: Numbering Race), Statistics and Data Sciences 310T (Topic: Numbering Race), 311C.

#### **SDS 318. Introduction to Statistical and Scientific Computation.**

An introduction to quantitative analysis using fundamental concepts in statistics and scientific computation. Includes probability, distributions, sampling, interpolation, iteration, recursion, and visualization. Three lecture hours and one laboratory hour a week for one semester. Statistics and Data Sciences 318 and Statistics and Scientific Computation 318 may not both be counted.

### **Upper-Division Courses**

#### **SDS 320E. Elements of Statistics.**

Introduction to statistics. Subjects include probability; principles of observational study and experimental design; statistical models and inference, including the multiple linear regression model and one-way analysis of variance. R programming is introduced. Three lecture hours and one laboratory hour a week for one semester. Statistics and Data Sciences 320E and 328M may not both be counted.

#### **SDS 321. Introduction to Probability and Statistics.**

Covers fundamentals of probability, combinatorics, discrete and continuous random variables, jointly distributed random variables, and limit theorems. Using probability to introduce fundamentals of statistics, including Bayesian and classical inference. The equivalent of four lectures hours a week. Mathematics 362K and Statistics and Data Sciences 321 may not both be counted. Prerequisite: Mathematics 408C, 408L, 408R, or 408S with a grade of at least C-.

### **SDS 222, 322. Introduction to Scientific Programming.**

Introduction to programming using both the C and Fortran (95/2003) languages, with applications to basic scientific problems. Covers common data types and structures, control structures, algorithms, performance measurement, and interoperability. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Statistics and Data Sciences 222, 322, 292, 392, Statistics and Scientific Computation 222, 322, 292, 392. Prerequisite: Credit or registration for Mathematics 408C, 408K, or 408N.

### **SDS 322E. Elements of Data Science.**

Explore data science tools and examine data wrangling; exploratory data analysis and data visualization; markdown and data workflow; simulation-based inference; and classification methods. R programming is emphasized and Python programming is introduced. Three lecture hours and one laboratory hour a week for one semester. Statistics and Data Sciences 322E and 348 may not both be counted. Prerequisite: An introductory statistics course.

### **SDS 323. Statistical Learning and Inference.**

An introduction to statistical influence, broadly construed as the process of drawing conclusions from data, and to quantifying uncertainty about said conclusions. Covers the major schools of thought that influence modern scientific practice, including classical frequentist methods, machine learning, and Bayesian inference. Three lecture hours a week for one semester. Statistics and Data Sciences 323 and Statistics and Scientific Computation 323 may not both be counted. Prerequisite: Statistics and Data Sciences 321 (or Statistical and Scientific Computation 321) or the equivalent.

### **SDS 324E. Elements of Regression Analysis.**

Explore the use of regression analysis in applied research and learn about multiple linear regression; ANOVA; logistic regression; random and mixed-effects models; and models for dependent data. Engage in the identification of appropriate statistical methods and interpretation of software output. R programming is introduced. Three lecture hours a week for one semester. Statistics and Data Sciences 324E and 332 may not both be counted. Prerequisite: Statistics and Data Sciences 302F or Statistics and Data Sciences 320E (or Statistics and Data Sciences 302, 304, 306, or 328M).

### **SDS 325H. Honors Statistics.**

An introduction to the fundamental theories, concepts, and methods of statistics. Emphasizes probability models, exploratory data analysis, sampling distributions, confidence intervals, hypothesis testing, correlation and regression, and the use of statistical software. Three lecture hours a week for one semester. Statistics and Data Sciences 325H and Statistics and Scientific Computation 325H may not both be counted. Prerequisite: Admission to the Dean's Scholars Honors Program in the College of Natural Sciences or consent of instructor.

### **SDS 329C. Practical Linear Algebra I.**

Matrix representations and properties of matrices; linear equations, eigenvalue problems and their physical interpretation; and linear least squares and elementary numerical analysis. Emphasis on physical interpretation, practical numerical algorithms, and proofs of fundamental principles. Three lecture hours a week for one semester. Only one of the following may be counted: Mathematics 340L, 341, Statistics and Data Sciences 329C.

### **SDS 329D. Practical Linear Algebra II.**

Iterative solutions to linear equations and eigenvalue problems; properties of symmetric and nonsymmetric matrices, exploitation of sparsity and diagonal dominance; introduction to multivariate nonlinear equations; numerical analysis; and selected applications and topics

in the physical sciences. Three lecture hours a week for one semester. Statistics and Data Sciences 329D and Statistics and Scientific Computation 329D may not both be counted. Prerequisite: Mathematics 340L, 341, or Statistics and Data Sciences 329C (or Statistics and Scientific Computation 329C).

### **SDS 335. Scientific and Technical Computing.**

A comprehensive introduction to computing techniques and methods applicable to many scientific disciplines and technical applications. Covers computer hardware and operating systems, systems software and tools, code development, numerical methods and math libraries, and basic visualization and data analysis tools. Three lecture hours a week for one semester. Statistics and Data Sciences 335 and Statistics and Scientific Computation 335 may not both be counted. Prerequisite: Mathematics 408D or 408M, and prior programming experience.

### **SDS 339. Applied Computational Science.**

Concentrated study in a specific area or areas of application, with an emphasis on modeling and visualization. Areas may include computational biology, computational chemistry, computational applied mathematics, computational economics, computational physics, or computational geology. Three lecture hours a week for one semester. Statistics and Data Sciences 339 and Statistics and Scientific Computation 339 may not both be counted unless topics vary. May be repeated for credit when the topics vary.

### **SDS 150K. Data Analysis Applications.**

Introduction to the use of statistical mathematical applications for data analysis. Two lecture hours a week for eight weeks. Statistics and Data Sciences 150K and Statistics and Scientific Computation 150K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Varies with the topic.

**Topic 1: SPSS Software.** Statistics and Data Sciences 150K (Topic 1) and Statistics and Scientific Computation 150K (Topic 1) may not both be counted. Offered on the pass/fail basis only. Additional prerequisite: Upper-division standing.

**Topic 2: SAS Software.** Statistics and Data Sciences 150K (Topic 2) and Statistics and Scientific Computation 150K (Topic 2) may not both be counted. Offered on the pass/fail basis only. Additional prerequisite: Upper-division standing.

**Topic 3: Stata Software.** Statistics and Data Sciences 150K (Topic 3) and Statistics and Scientific Computation 150K (Topic 3) may not both be counted. Offered on the pass/fail basis only. Additional prerequisite: Upper-division standing.

**Topic 4: The R Software Environment.** Statistics and Data Sciences 150K (Topic 4) and Statistics and Scientific Computation 150K (Topic 4) may not both be counted. Offered on the pass/fail basis only. Additional prerequisite: Upper-division standing.

### **SDS 352. Statistical Methods.**

Study of simple and multiple regression, fundamentals of experimental design, and analysis of variance methods. May include logistic regression, Poisson regression, resampling methods, introduction to Bayesian methods, and probability models. Includes substantial use of statistical software. Three lecture hours and one laboratory hour a week for one semester. Statistics and Data Sciences 352 and Statistics and Scientific Computation 352 may not both be counted. Prerequisite: One of the following: Mathematics 316, Statistics and Data Sciences 303 (or Statistics and Scientific Computation 303), 304 (or Statistics and Scientific Computation 304), 305 (or Statistics and Scientific Computation 305), or 306 (or Statistics and Scientific Computation 306).

### **SDS 353. Advanced Multivariate Modeling.**

Advanced topics in statistical modeling, including models for categorical and count data; spatial and time-series data; and survival, hazard, and hierarchical models. Extensive use of statistical software to build on knowledge of introductory probability and statistics, as well as multiple regression. Three lecture hours a week for one semester. Statistics and Data Sciences 353 and Statistics and Scientific Computation 353 may not both be counted. Prerequisite: Mathematics 408D or 408M; and Statistics and Data Sciences 325H (or Statistics and Scientific Computation 325H) or 352 (Statistics and Scientific Computation 352).

### **SDS 358. Special Topics in Statistics.**

Three lecture hours a week for one semester. Statistics and Data Sciences 358 and Statistics and Scientific Computation 358 may not both be counted unless topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites may vary with the topic.

**Topic 1: Applied Regression Analysis.** Through software application, discussion, and guided instruction, explores simple linear regression - what data is appropriate, how to run analysis, and how to interpret the output. Examines multiple regression with combinations of predictor variables, both continuous and categorical. There will be a discussion/application of ANOVA, prior to preceding on to logistic regression: the prediction of discrete events. Statistics and Data Sciences 358 (Topic: Applied Regression Analysis) and 358 (Topic 1) may not both be counted. Additional prerequisite: One of the following with a grade of at least C-: Statistics and Data Sciences 302, 304, 306, 328M.

### **SDS 367S. Simulation Modeling.**

Basic concepts of discrete-event simulation. Statistical input and output analysis; application of simulation software; modeling of systems under uncertainty. Three lecture hours a week for one semester. Only one of the following may be counted: Statistics and Data Sciences 367S, Statistics and Scientific Computation 358 (Topic: Simulation Modeling), 367S. Prerequisite: Upper-division standing and the following with a grade of at least C-: Mathematics 408C, 408K, or 408N; and Statistics and Data Sciences 321 (or Scientific Computation 321) or an equivalent introductory statistics course.

### **SDS 374C. Parallel Computing for Science and Engineering.**

Study of parallel computing principles, architectures, and technologies; and parallel application development, performance, and scalability. Designed to help prepare students to formulate and develop parallel algorithms to implement effective applications for parallel computing systems. Three lecture hours a week for one semester. Statistics and Data Sciences 374C and Statistics and Scientific Computation 374C may not both be counted. Prerequisite: Mathematics 408D or 408M, 340L, and prior programming experience using C or Fortran on Linux or Unix systems.

### **SDS 374D. Distributed and Grid Computing for Science and Engineering.**

Distributed and grid computing principles and technologies. Covers common modes of grid computing for scientific applications, development of grid-enabled applications, and future trends in grid computing. Three lecture hours a week for one semester. Statistics and Data Sciences 374D and Statistics and Scientific Computation 374D may not both be counted. Prerequisite: Mathematics 408D or 408M, 340L, and prior programming experience using C or Fortran on Linux or Unix systems.

### **SDS 374E. Visualization and Data Analysis for Science and Engineering.**

Scientific visualization principles, practices, and technologies, including remote and collaborative visualization. Introduces statistical analysis, data mining, and feature detection. Three lecture hours a week for one semester. Statistics and Data Sciences 374E and Statistics and Scientific Computation 374E may not both be counted. Prerequisite: Mathematics 408D or 408M, 340, and prior programming experience using C or Fortran on Linux or Unix systems.

### **SDS 375. Special Topics in Scientific Computation.**

Three lecture hours a week for one semester. Statistics and Data Sciences 375 and Statistics and Scientific Computation 375 may not both be counted unless topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites may vary with the topic.

### **SDS 378. Introduction to Mathematical Statistics.**

Same as Mathematics 378K. Sampling distributions of statistics, estimation of parameters (confidence intervals, method of moments, maximum likelihood, comparison of estimators using mean square error and efficiency, sufficient statistics), hypothesis tests (p-values, power, likelihood ratio tests), and other topics. Three lecture hours a week for one semester. Mathematics 378K and Statistics and Data Sciences 378 may not both be counted. Prerequisite: Mathematics 362K with a grade of at least C-.

### **SDS 378P. Decision Analytics.**

Examine decision theory with utility functions, including the use of probability, optimization, constrained optimization, and linear algebra. Three lecture hours a week for one semester. Only one of the following may be counted: Mathematics 375T (Topic: Decision Analytics), 378P, Statistics and Data Sciences 378P. Prerequisite: Mathematics 362K and Mathematics 378K with a grade of at least C-, or consent of the instructor.

### **SDS 179R, 279R, 379R, 479R. Undergraduate Research.**

Students work on an individual research project under the supervision of one or more faculty members. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## **Graduate Courses**

### **SDS 380C. Statistical Methods I.**

Introduction to the fundamental concepts and methods of statistics. Includes descriptive statistics, sampling distributions, confidence intervals, and hypothesis testing. May include simple and multiple linear regression, analysis of variance, and categorical analysis. Use of statistical software is emphasized. Three lecture hours a week for one semester. Statistics and Data Sciences 380C and Statistics and Scientific Computation 380C may not both be counted. Prerequisite: Graduate standing.

### **SDS 380D. Statistical Methods II.**

Continuation of Statistics and Data Sciences 380C (or Statistics and Scientific Computation 380C). Surveys advanced statistical modeling and may include random and mixed effects models, time series analysis, survival analysis, Bayesian methods, and multivariate analysis of variance. Use of statistical software is emphasized. Three lecture hours a week for one semester. Statistics and Data Sciences 380D and Statistics and Scientific Computation 380D may not both be counted. Prerequisite: Graduate standing, and Statistics and Data Sciences 380C (or Statistics and Scientific Computation 380C) or the equivalent.

### **SDS 381. Mathematical Methods for Statistical Analysis.**

Introduction to mathematical concepts and methods essential for multivariate statistical analysis. Areas may include basic matrix algebra, eigenvalues and eigenvectors, quadratic forms, vector and matrix differentiation, unconstrained optimization, constrained optimization, and applications in multivariate statistical analysis. Three lecture hours a week for one semester. Statistics and Data Sciences 381 and Statistics and Scientific Computation 381 may not both be counted. Prerequisite: Graduate standing and a course in statistics.

### **SDS 382. Introduction to Probability and Statistics.**

Expectation and variance of random variables, conditional probability and independence, sampling distributions, point estimation, confidence intervals, hypothesis tests, and other topics. Three lecture hours a week for one semester. Statistics and Data Sciences 382 and Statistics and Scientific Computation 382 may not both be counted. Prerequisite: Graduate standing and a second-semester calculus class.

### **SDS 383C. Statistical Modeling I.**

An introduction to core applied statistical modeling ideas from a probabilistic, Bayesian perspective. Topics include exploratory data analysis, programming in R, Bayesian probability models, an introduction to the Gibbs sampler, applied regression analysis, and hierarchical models. Three lecture hours a week for one semester. Statistics and Data Sciences 383C and Statistics and Scientific Computation 383C may not both be counted. Prerequisite: Graduate standing.

### **SDS 383D. Statistical Modeling II.**

Use of structured, probabilistic models that incorporate multiple layers of uncertainty to describe real-world systems. Topics include multivariate normal distribution, mixture models, nonparametric Bayesian analysis, advanced hierarchical models and latent-variable models, generalized linear models, and advanced topics in linear and nonlinear regression. Three lecture hours per week for one semester. Statistics and Data Sciences 383D and Statistics and Scientific Computation 383D may not both be counted. Prerequisite: Graduate standing; Economics 392M (Topic 19), Statistics and Data Sciences 384 (or Statistics and Scientific Computation 384), or the equivalent; and 383C (or Statistics and Scientific Computation 383C).

### **SDS 183K. Data Analysis Applications.**

Introduction to the use of statistical or mathematical applications for data analysis. Two lecture hours a week for eight weeks. Statistics and Data Sciences 183K and Statistics and Scientific Computation 183K may not both be counted unless the topics vary. May be repeated for credit when the topics vary. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

**Topic 1: SPSS Software.** Statistics and Data Sciences 183K (Topic 1) and Statistics and Scientific Computation 183K (Topic 1) may not both be counted. Offered on the credit/no credit basis only.

**Topic 2: SAS Software.** Statistics and Data Sciences 183K (Topic 2) and Statistics and Scientific Computation 183K (Topic 2) may not both be counted. Offered on the credit/no credit basis only.

**Topic 3: Stata Software.** Statistics and Data Sciences 183K (Topic 3) and Statistics and Scientific Computation 183K (Topic 3) may not both be counted. Offered on the credit/no credit basis only.

**Topic 4: The R Software Environment.** Statistics and Data Sciences 183K (Topic 4) and Statistics and Scientific Computation 183K (Topic 4) may not both be counted. Offered on the credit/no credit basis only.

### **SDS 384. Topics in Statistics and Probability.**

Concepts of probability and mathematical statistics with applications in data analysis and research. Three lecture hours a week for one semester. Statistics and Data Sciences 384 and Statistics and Scientific

Computation 384 may not both be counted unless topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; and Statistics and Data Sciences 382 (or Statistics and Scientific Computation 382), an introductory probability course and a statistics course, or consent of instructor.

**Topic 1: Applied Probability.** Basic probability theory, combinatorial analysis of random phenomena, conditional probability and independence, parametric families of distributions, expectation, distribution of functions of random variables, and limit theorems. Statistics and Data Sciences 384 (Topic 1) and Statistics and Scientific Computation 384 (Topic 1) may not both be counted.

**Topic 2: Mathematical Statistics I.** Same as Computational Science, Engineering, and Mathematics 384R and Mathematics 384C. The general theory of mathematical statistics. Includes distributions of functions of random variables, properties of a random sample, principles of data reduction, an overview of hierarchical models, decision theory, Bayesian statistics, and theoretical results relevant to point estimation, interval estimation, and hypothesis testing. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384R, Mathematics 384C, Statistics and Data Sciences 384 (Topic 2). Additional prerequisite: Graduate standing; and Mathematics 362K and 378K, or consent of instructor.

**Topic 3: Mathematical Statistics II.** Same as Computational Science, Engineering, and Mathematics 384S and Mathematics 384D. Continuation of Computational Science, Engineering, and Mathematics 384R and Mathematics 384C. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384S, Mathematics 384D, Statistics and Data Sciences 384 (Topic 3). Additional prerequisite: Graduate standing; Computational Science, Engineering, and Mathematics 384R, or Mathematics 384C; and Mathematics 362K and 378K, Statistics and Data Sciences 382, or consent of instructor.

**Topic 4: Regression Analysis.** Same as Computational Science, Engineering, and Mathematics 384T and Mathematics 384G. Simple and multiple linear regression, inference in regression, prediction of new observations, diagnosis and remedial measures, transformations, and model building. Emphasis on both understanding the theory and applying theory to analyze data. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384T, Mathematics 384G, Statistics and Data Sciences 384 (Topic 4). Additional prerequisite: Graduate standing; and Mathematics 362K and 378K, Statistics and Data Sciences 382, or consent of instructor.

**Topic 6: Design and Analysis of Experiments.** Same as Computational Science, Engineering, and Mathematics 384U and Mathematics 384E. Design and analysis of experiments, including one-way and two-way layouts; components of variance; factorial experiments; balanced incomplete block designs; crossed and nested classifications; fixed, random, and mixed models; and split plot designs. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 384U, Mathematics 384E, Statistics and Data Sciences 384 (Topic 6). Additional prerequisite: Graduate standing; and Mathematics 362K and 378K, Statistics and Data Sciences 382, or consent of instructor.

**Topic 7: Bayesian Statistical Methods.** Fundamentals of Bayesian inference in single-parameter and multi-parameter models for inference and decision making, including simulation of posterior distributions, Markov chain Monte Carlo methods, hierarchical models, and empirical Bayes models. Statistics and Data Sciences 384 (Topic 7) and Statistics and Scientific Computation 384 (Topic 7) may not both be counted.

**Topic 8: Time Series Analysis.** Introduction to statistical time series analysis. Includes autoregressive integrated moving average (ARIMA) and more general models, forecasting, spectral analysis, time domain regression, model identification, estimation of parameters, and diagnostic checking. Statistics and Data Sciences 384 (Topic 8) and Statistics and Scientific Computation 384 (Topic 8) may not both be counted. Additional prerequisite: Mathematics 384D.

**Topic 9: Computational Statistics.** Modern, computation intensive statistical methods, including simulation, optimization methods, Monte Carlo integration, maximum likelihood estimation and expectation-maximization parameter estimation, Markov chain Monte Carlo methods, resampling methods, and nonparametric density estimation. Statistics and Data Sciences 384 (Topic 9) and Statistics and Scientific Computation 384 (Topic 9) may not both be counted.

**Topic 10: Stochastic Processes.** Concepts and techniques of stochastic processes, with emphasis on the nature of change of variables with respect to time. Includes characterization, structural properties, and inference. Statistics and Data Sciences 384 (Topic 10) and Statistics and Scientific Computation 384 (Topic 10) may not both be counted.

**Topic 11: Theoretical Statistics.** Examination of asymptotic theory and empirical processes. The former would include minimax theory, Bernstein von Mises theorem, and Bayesian asymptotics. The latter, would include U statistics and robust estimation. Additional prerequisite: Statistics and Data Sciences 384 (Topic 3) or the equivalent; and advanced probability.

### **SDS 385. Topics in Applied Statistics.**

Theories, models, and methods for the analysis of quantitative data. Three lecture hours a week for one semester. Statistics and Data Sciences 385 and Statistics and Scientific Computation 385 may not both be counted unless topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; and Statistics and Data Sciences 380C (or Statistics and Scientific Computation 380C), 382 (or Statistics and Scientific Computation 382), or consent of instructor.

**Topic 1: Experimental Design.** Principles, construction, and analysis of experimental designs. Includes one-way classification, randomized blocks, Latin squares, factorial and nested designs, fixed and random effects, multiple comparisons, and analysis of covariance. Statistics and Data Sciences 385 (Topic 1) and Statistics and Scientific Computation 385 (Topic 1) may not both be counted.

**Topic 2: Applied Regression.** Examination of the foundation of regression analysis. Subjects include simple and multiple linear regression, residual analysis, transformations, building models with real data, testing models, logistic regression, and panel data analysis. Statistics and Data Sciences 385 (Topic 2) and Statistics and Scientific Computation 385 (Topic 2) may not both be counted. Additional prerequisite: Graduate standing, and one of the following: Public Affairs 397, Statistics and Data Sciences 380C (or Statistics and Scientific Computation 380C), 382 (or Statistics and Scientific Computation 382), or consent of instructor.

**Topic 3: Applied Multivariate Methods.** Introduction to the analysis of multivariate data as applied to examples from the social sciences. Includes multivariate linear models, principal components and factor analysis, discriminant analysis, clustering, and canonical correlation. Statistics and Data Sciences 385 (Topic 3) and Statistics and Scientific Computation 385 (Topic 3) may not both be counted. Additional prerequisite: Statistics and Data Sciences 385 (Topic 2) (or Statistics and Scientific Computation 385 (Topic 2)), or the equivalent.

**Topic 4: Analysis of Categorical Data.** Methods for analyzing categorical data. Includes categorical explanatory variables within the general linear model, models of association among categorical variables, and models in which the response variable is categorical or is a count. Emphasis on logical similarities across methods. Statistics

and Data Sciences 385 (Topic 4) and Statistics and Scientific Computation 385 (Topic 4) may not both be counted.

**Topic 5: Structural Equation Modeling.** Introduction to the basic concepts, methods, and computing tools used in structural equation modeling. Designed to help students develop a working familiarity with some common statistical procedures and their application through the use of statistical software. Statistics and Data Sciences 385 (Topic 5) and Statistics and Scientific Computation 385 (Topic 5) may not both be counted. Additional prerequisite: Statistics and Data Sciences 385 (Topic 2) (or Statistics and Scientific Computation 385 (Topic 2)), or the equivalent or consent of instructor.

**Topic 6: Hierarchical Linear Models.** Introduction to multilevel data structures, model building and testing, effect size, fixed and random effects, missing data and model assumptions, hierarchical linear modeling (HLM) logistics, statistical power, and design planning. Statistics and Data Sciences 385 (Topic 6) and Statistics and Scientific Computation 385 (Topic 6) may not both be counted. Additional prerequisite: Statistics and Data Sciences 385 (Topic 2) (or Statistics and Scientific Computation 385 (Topic 2)), or the equivalent or consent of instructor.

**Topic 7: Survey Sampling and Methodology.** Survey planning, execution, and analysis. Includes the principles of survey research, including sampling and measurement; questionnaire construction and distribution; response effects; validity and reliability; scaling data sources; and data reduction and analysis. Statistics and Data Sciences 385 (Topic 7) and Statistics and Scientific Computation 385 (Topic 7) may not both be counted.

**Topic 8: Introduction to Bayesian Methods.** A practical introduction to Bayesian statistical inference, with an emphasis on applications in behavioral and measurement research. Examines how Bayesian statistical inference differs from classical inference in the context of simple statistical procedures and models, such as hypothesis testing, analysis of variance (ANOVA), and regression. Statistics and Data Sciences 385 (Topic 8) and Statistics and Scientific Computation 385 (Topic 8) may not both be counted. Additional prerequisite: Statistics and Data Sciences 385 (Topic 2) (or Statistics and Scientific Computation 385 (Topic 2)) or the equivalent, or consent of instructor.

**Topic 9: Longitudinal Data Analysis.** Applications of models to data collected at successive points in time. Includes latent growth curve models, models for nonlinear growth, discrete-time and continuous-time event history models, multilevel models for change, random coefficient models, and applications of models to event-occurrence data. Statistics and Data Sciences 385 (Topic 9) and Statistics and Scientific Computation 385 (Topic 9) may not both be counted.

**Topic 10: Modern Statistical Methods.** Introduction to conducting statistical analysis using modern resampling methods, including bootstrapping and Monte Carlo simulation. Emphasis on theoretical understanding and application. Statistics and Data Sciences 385 (Topic 10) and Statistics and Scientific Computation 385 (Topic 10) may not both be counted.

**Topic 11: Applied Mathematical Statistics.** Introduction to the basic concepts of probability and mathematical statistics. Includes probability distributions and estimation theory and hypothesis testing techniques. Designed for doctoral students who plan to use statistical methods in their research but do not require a highly mathematical investigation of the subject. Statistics and Data Sciences 385 (Topic 11) and Statistics and Scientific Computation 385 (Topic 11) may not both be counted. Additional prerequisite: A calculus course covering integration and differentiation.

**Topic 12: Meta-Analysis.** Introduction to the statistics used to synthesize results from a set of studies. May include calculation of different effect sizes, calculating pooled estimates using fixed and random effects models, testing moderating variables using fixed and mixed effects models, testing heterogeneity of effect sizes, and assessing and correcting publication bias. Statistics and Data

Sciences 385 (Topic 12) and Statistics and Scientific Computation 385 (Topic 12) may not both be counted.

**Topic 13: Factor Analysis.** Introduction to exploratory and confirmatory factor analysis. May include review of matrix algebra and vector geometry, principal components and principal axis factoring, and factor rotation methods, as well as single-factor and multiple-factor multisample models, multitrait-multimethod technique, and latent means modeling. Emphasis on critiquing current research. Statistics and Data Sciences 385 (Topic 13) and Statistics and Scientific Computation 385 (Topic 13) may not both be counted. Additional prerequisite: Statistics and Data Sciences 385 (Topic 2) (or Statistics and Scientific Computation 385 (Topic 2)), or the equivalent or consent of instructor.

**Topic 14: Maximum-Likelihood Statistics.** Introduction to the likelihood theory of statistical inference. Includes probability distributions, estimation theory, and applications of maximum-likelihood estimation (MLE) to models with categorical or limited dependent variables, even count models, event history models, models for time-series cross-section data, and models for hierarchical data. Statistics and Data Sciences 385 (Topic 14) and Statistics and Scientific Computation 385 (Topic 14) may not both be counted.

**Topic 15: Survival Analysis and Duration Modeling.** Focuses on the statistical methods related to the analysis of survival or of time to event data. Emphasis on practical applications in medicine, biology, economics, criminology, sociology, and engineering. May include Kaplan-Meier estimators, semiparametric and parametric regression models, model development, and model adequacy assessment. Statistics and Data Sciences 385 (Topic 15) and Statistics and Scientific Computation 385 (Topic 15) may not both be counted.

**Topic 16: Statistical Models for Big Data.** An introduction to approaches for modeling large data sets in the biological, social, and physical sciences. Subjects include: linear and generalized-linear models for very large data sets, graphical models, matrix factorization, latent-variable models, large-scale spatial smoothing, online learning, multiple testing, and convex optimization with applications to data analysis. Additional prerequisite: Basic knowledge of linear algebra and multivariable calculus; knowledge of basic probability and statistics at the level of Statistics and Data Sciences 321 and Mathematics 358K; some familiarity with linear regression modeling; programming experience in R, Python, Matlab, or a similar language.

### **SDS 386C. Probabilistic Graphical Models.**

An introduction to statistical learning methods, exploring both the computational and statistical aspects of data analysis. Topics include numerical linear algebra, convex optimization techniques, basics of stochastic simulation, nonparametric methods, kernel methods, graphical models, decision trees, and data resampling. Three lecture hours a week for one semester. Statistics and Scientific Computation 386C and Statistics and Data Sciences 386C may not both be counted. Prerequisite: Graduate standing.

### **SDS 386D. Monte Carlo Methods in Statistics.**

Stochastic simulation for Bayesian inference, designed to develop an understanding of Markov chain Monte Carlo methods and their underlying theoretical framework. Topics include Markov chains, Monte Carlo integration, Gibbs sampler, Metropolis-Hastings algorithms, slice sampling, and sequential Monte Carlo. Three lecture hours a week for one semester. Statistics and Data Sciences 386D and Statistics and Scientific Computation 386D may not both be counted. Prerequisite: Graduate standing; and Economics 392M (Topic 19), Statistics and Data Sciences 384 (or Statistics and Scientific Computation 384), or the equivalent.

### **SDS 387. Linear Models.**

An exploration of practical applications of the projection approach to linear models, building from a review of essential linear algebra concepts to the theory of linear models from a projection-based perspective. Introduction to Bayesian ideas. Additional topics include analysis of variance, generalized linear models, and variable selection techniques. Three lecture hours a week for one semester. Statistics and Data Sciences 387 and Statistics and Scientific Computation 387 may not both be counted. Prerequisite: Graduate standing; Economics 392M (Topic 19: Probability and Statistics), Statistics and Data Sciences 384 (or Statistics and Scientific Computation 384), or the equivalent; and basic coding skills in R, Matlab, or Stata.

### **SDS 388. Consulting Seminar.**

Supervised experience in applying statistical or mathematical methods to real problems. Includes participation in weekly consulting sessions, directed readings in the statistical literature, the ethics of research and consulting, and report writing and presentations. The equivalent of three lecture hours a week for one semester. Statistics and Data Sciences 388 and Statistics and Scientific Computation 388 may not both be counted. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **SDS 389. Time Series and Dynamic Models.**

Exploration of the general class of state-space models, or dynamic models. Emphasis is placed on the implementation and use of the models presented, with applications focused on the social sciences. Topics include dynamic regression models, the Kalman filter, time series models, multivariate time series models, conditional variance models, Markov chain Monte Carlo algorithms for state-space models, and particle filters. Three lecture hours a week for one semester. Statistics and Data Sciences 389 and Statistics and Scientific Computation 389 may not both be counted. Prerequisite: Graduate standing; Economics 392M (Topic 19), Statistics and Data Sciences 384 (or Statistics and Scientific Computation 384), or the equivalent; and coding skills in R, Matlab, or Stata.

### **SDS 189R, 289R, 389R, 489R. Graduate Research.**

Individual research project supervised by one or more faculty members. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Graduate standing.

### **SDS 190. Readings in Statistics.**

Faculty directed research seminar. Activities may vary, but will include readings of cutting-edge research papers, discussion of on-going student and faculty projects, and consulting projects. May be repeated for credit. Prerequisite: Graduate standing.

### **SDS 190C. Biomedical Big Data Seminar.**

Faculty directed research seminar and workshop. Activities may vary but will include literature reviews and group discussion, discussion of faculty and student projects, and presentations. One lecture hour a week for one semester. Statistics and Data Sciences 183K (Topic: Biomedical Big Data Seminar) and 190C may not both be counted. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing.

### **SDS 391C. Statistical Machine Learning.**

Introduction to statistical machine learning. Subjects include but are not limited to supervised learning (estimation, linear regression, classification, online and margin based classification approaches), unsupervised learning (K-means, mixture of Gaussians, dimensionality reduction PCA/SVD), and non-parametric methods. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite:

Graduate standing; experience in multivariate statistics, probability, linear algebra.

### **SDS 391D. Data Mining.**

Study of various mathematical and statistical aspects of data mining. Includes supervised learning (regression, classification, and support vector machines) and unsupervised learning (clustering, principal components analysis, and dimensionality reduction). Uses technical tools drawn from linear algebra, multivariate statistics, and optimization. Three lecture hours a week for one semester. Statistics and Data Sciences 391D and Statistics and Scientific Computation 391D may not both be counted. Prerequisite: Graduate standing and a linear algebra course.

### **SDS 292, 392. Introduction to Scientific Programming.**

Introduction to programming using both the C and Fortran (95/2003) languages, with applications to basic scientific problems. Covers common data types and structures, control structures, algorithms, performance measurement, and interoperability. For each semester hour of credit earned, one lecture hour a week for one semester. Only one of the following may be counted: Statistics and Data Sciences 222, 322, 292, 392, Statistics and Scientific Computation 222, 322, 292, 392. Prerequisite: Graduate standing and credit or registration for a first-semester calculus course.

### **SDS 392M. Computational Economics.**

Introduction to the development and solution of economic models of growth, macroeconomic fluctuations, environmental economics, financial economics, general equilibrium models, game theory, and industrial economics. Includes neural nets, genetic algorithms and agent-based methods, and stochastic control theory applied to a variety of economic topics. Three lecture hours a week for one semester. Statistics and Data Sciences 392M and Statistics and Scientific Computation 392M may not both be counted. Prerequisite: Graduate standing.

### **SDS 393C. Numerical Analysis: Linear Algebra.**

Same as Computational Science, Engineering, and Mathematics 383C, Computer Science 383C, and Mathematics 383E. Survey of numerical methods in linear algebra: floating-point computation, solution of linear equations, least squares problems, algebraic eigenvalue problems. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 383C, Computer Science 383C, Mathematics 383E, Statistics and Data Sciences 393C. Prerequisite: Graduate standing; Computer Science 367 or Mathematics 368K; and Mathematics 340L, 341, or consent of instructor.

### **SDS 393D. Numerical Analysis: Interpolation, Approximation, Quadrature, and Differential Equations.**

Same as Computational Science, Engineering, and Mathematics 383D, Computer Science 383D, and Mathematics 383F. Survey of numerical methods for interpolation, functional approximation, integration, and solution of differential equations. Three lecture hours a week for one semester. Only one of the following may be counted: Computational Science, Engineering, and Mathematics 383D, Computer Science 383D, Mathematics 383F, Statistics and Data Sciences 393D. Prerequisite: Graduate standing; Computational Science, Engineering, and Mathematics 383C, Computer Science 383C, Mathematics 383E, or Statistics and Data Sciences 393C; and Mathematics 427K and 365C, or consent of instructor.

### **SDS 394. Scientific and Technical Computing.**

Comprehensive introduction to computing techniques and methods applicable to many scientific disciplines and technical applications. Covers computer hardware and operating systems, systems software

and tools, code development, numerical methods and math libraries, and basic visualization and data analysis tools. Three lecture hours a week for one semester. Statistics and Data Sciences 394 and Statistics and Scientific Computation 394 may not both be counted. Prerequisite: Graduate standing, and a third-semester calculus course or the equivalent; prior programming experience is recommended.

### **SDS 394C. Parallel Computing for Science and Engineering.**

Parallel computing principles, architectures, and technologies. Parallel application development, performance, and scalability. Designed to prepare students to formulate and develop parallel algorithms to implement effective applications for parallel computing systems. Three lecture hours a week for one semester. Statistics and Data Sciences 394C and Statistics and Scientific Computation 394C may not both be counted. Prerequisite: Graduate standing, a third-semester calculus course or the equivalent, a linear algebra course or a matrices course, and prior programming experience using C or Fortran on Linux or Unix systems.

### **SDS 394D. Distributed and Grid Computing for Science and Engineering.**

Distributed and grid computing principles and technologies. Covers common modes of grid computing for scientific applications, developing grid-enabled applications, and future trends in grid computing. Three lecture hours a week for one semester. Statistics and Data Sciences 394D and Statistics and Scientific Computation 394D may not both be counted. Prerequisite: Graduate standing, a third-semester calculus course or the equivalent, a linear algebra course or a matrices course, and prior programming experience using C or Fortran on Linux or Unix systems.

### **SDS 394E. Visualization and Data Analysis for Science and Engineering.**

Scientific visualization principles, practices, and technologies, including remote and collaborative visualization. Introduces statistical analysis, data mining, and feature detection. Three lecture hours a week for one semester. Statistics and Data Sciences 394E and Statistics and Scientific Computation 394E may not both be counted. Prerequisite: Graduate standing, a third-semester calculus course or the equivalent, a linear algebra course or a matrices course, and prior programming experience using C or Fortran on Linux or Unix systems.

### **SDS 395. Advanced Topics in Scientific Computation.**

Three lecture hours a week for one semester. Statistics and Data Sciences 395 and Statistics and Scientific Computation 395 may not both be counted unless topics vary. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

### **SDS 197R. Statistics Internship.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of graduate adviser.

### **SDS 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. Statistics and Data Sciences 398R and Statistics and Scientific Computation 398R may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in statistics and data sciences, consent of supervising professor, and consent of graduate adviser.

## **SDS 398T. Supervised Teaching in Statistics and Data Sciences.**

Supervised teaching experience; weekly group meetings, individual consultations, and reports. Three lecture hours a week for one semester. Statistics and Data Sciences 398T and Statistics and Scientific Computation 398T may not both be counted. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and appointment as a teaching assistant.

## **SDS 399W, 699W, 999W. Dissertation.**

Statistics and Data Sciences 399W, 699W, 999W and Statistics and Scientific Computation 399W, 699W, 999W may not both be counted. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Statistics Courses**

## **Statistics: STA**

### **Lower-Division Courses**

#### **STA 301. Introduction to Data Science.**

Restricted to students in the McCombs School of Business. An introduction to the principles and practice of data science for business applications. Explore tidying, summarizing, and visualizing data; statistical computing in R; linear regression; introduction to predictive modeling and out-of-sample model validation; uncertainty quantification using resampling methods; basic probability models, including the normal and binomial distributions; and statistical hypothesis testing. The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only.

#### **STA 301H. Introduction to Data Science: Honors.**

Restricted to students in the McCombs School of Business Honors Program. An introduction to the principles and practice of data science for business applications. Explore tidying, summarizing, and visualizing data; statistical computing in R; linear regression; introduction to predictive modeling and out-of-sample model validation; uncertainty quantification using resampling methods; basic probability models, including the normal and binomial distributions; and statistical hypothesis testing. The equivalent of three lecture hours a week for one semester. Offered on the letter-grade basis only.

#### **STA 309. Elementary Business Statistics.**

Restricted to students in the McCombs School of Business. Training in the use of data to gain insight into business problems; describing distributions (center, spread, change, and relationships), producing data (experiments and sampling), probability and inference (means, proportions, differences, regression and correlation). Three lecture hours a week for one semester. Only one of the following may be counted: Educational Psychology 371, Mathematics 316, Statistics 309, 309H, or Statistics and Data Sciences 301. Offered on the letter-grade basis only. Prerequisite: Mathematics 408Q or credit or registration for Mathematics 408D, 408L, or 408S.

#### **STA 309H. Elementary Business Statistics: Honors.**

Restricted to students admitted to the McCombs School of Business Honors Program. Training in the use of data to gain insight into business problems; describing distributions (center, spread, change, and relationships), producing data (experiments and sampling), probability and inference (means, proportions, differences, regression and correlation). Three lecture hours a week for one semester. Only one of the following may be counted: Educational Psychology 371, Mathematics 316, Statistics 309, 309H and Statistics and Data Science

301. Offered on the letter-grade basis only. Prerequisite: Twenty-four semester hours of college credit, including Mathematics 408Q, 408D, 408L, or 408S.

## **Upper-Division Courses**

### **STA 235. Data Science for Business Applications.**

Restricted to students in the McCombs School of Business. Examine data science for business applications at the intermediate level. Explore building and validating predictive models; advanced regression modeling, including an in-depth treatment of regression; models for binary outcomes; and causal inference. The equivalent of two lecture hours a week for one semester. Statistics 235 and 235H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Statistics 301 or 301H, Mathematics 408Q or credit or registration for Mathematics 408D, 408L, or 408S.

### **STA 235H. Data Science for Business Applications: Honors.**

Restricted to students in the McCombs School of Business Honors Program. Examine data science for business applications at the intermediate level. Explore building and validating predictive models; advanced regression modeling, including an in-depth treatment of regression; models for binary outcomes; and causal inference. The equivalent of two lecture hours a week for one semester. Statistics 235 and 235H may not both be counted. Offered on the letter-grade basis only. Prerequisite: Statistics 301 or 301H, Mathematics 408Q or credit or registration for Mathematics 408D, 408L, or 408S.

### **STA 140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in Statistics.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office or the school's BBA Exchange Programs. Credit is recorded as assigned by the study abroad adviser in the Department of Information, Risk, and Operations Management. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. May be repeated for credit when the topics vary.

### **STA 371G. Statistics and Modeling.**

Restricted to students in the McCombs School of Business. Focuses on methods used to model and analyze data. Explores multiple regression models and their application in the functional areas of business, time-series models, decision analysis and the value of information, and simulation-based methods. Three lecture hours a week for one semester. Only one of the following may be counted: Statistics 371G, 371H, 375, 375H. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 301, 301H, or 310; Statistics 309 or 309H; and credit or registration for Business Administration 324 or 324H.

### **STA 371H. Statistics and Modeling: Honors.**

Restricted to students admitted to the McCombs School of Business Honors Program. Focuses on methods used to model and analyze data. Explores multiple regression models and their application in the functional areas of business, time-series models, decision analysis and the value of information, and simulation-based methods. Three lecture hours a week for one semester. Only one of the following may be counted: Statistics 371G, 371H, 375, 375H. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 301, 301H, or 310; Mathematics 408D, 408L, 408M or 408S; Statistics 309 or 309H; and credit or registration for Business Administration 324H.

### **STA 172, 272, 372. Topics in Statistics.**

Restricted to students in the McCombs School of Business. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite:

Upper-division standing, and Statistics 301, 301H, 309 or 309H with a grade of at least C-; additional prerequisites vary with the topic.

**Topic 1: Statistical Computer Packages.**

**Topic 2: Sampling.**

**Topic 3: Statistical Decision Making for Business.**

**Topic 4: Multivariate Statistical Analysis.**

**Topic 5: Financial and Econometric Time Series Modeling.** Applied skills course that focuses on statistical forecasting methods used in business. Subjects may include Box-Jenkins models; exponential smoothing models; ARCH/GARCH models for varying volatility in financial returns; seasonal adjustment of time series; tests for nonstationarity of time series; and modeling multiple time series. Each subject is illustrated with real data using series such as interest rates and stock returns. Statistics 372 (Topic 5) and Business Analytics 372 (Topic 20) may not both be counted. Additional prerequisite: Statistics 371G, 371H, 375, or 375H; or Statistics and Data Sciences 358 or Economics 341K; or other course with basic knowledge about regression.

**Topic 6: Optimization Methods in Finance.** Explores quantitative methods and techniques in optimization and simulation, and their use in financial decision making. Discusses theory and application in portfolio selection, options and other derivative pricing, index tracking, risk measures, volatility estimating. Specific subjects will include linear, quadratic, nonlinear, and integer programming; dynamic programming; robust optimization; Monte Carlo methods and variance reduction techniques. Emphasis will be placed on problem solving with advanced computational programming languages. Only one of the following may be counted: Finance 372 (Topic: Optimization Method in Finance), 372 (Topic 6), Statistics 372 (Topic 6), Business Analytics 372 (Topic 6), Decision Science 372 (Topic 6).

**Topic 7: Computational Finance.** A systematic introduction to the analysis and implementation of numerical methods used in finance. Covers numerical techniques used in derivative pricing and optimal asset allocation, such as Monte Carlo and quasi-Monte Carlo simulation, methods for solving partial differential equations, and dynamic programming. Statistics 372 (Topic 7) and Decision Science 372 (Topic 7) may not both be counted.

**Topic 8: Time Series Forecasting Models.** An applied skills approach to statistical forecasting methods used in business. Topics may include seasonal adjustment of time series; exponential smoothing models; ARCH/GARCH models for varying volatility in financial returns; diffusion models for new product forecasting; Box-Jenkins models; and modeling multiple time series. Each topic is illustrated with real data. Additional prerequisite: Statistics 235, 235H, 371G, 371H, 375, or 375H.

### **STA 375. Statistics and Modeling for Finance.**

Restricted to students in the McCombs School of Business. Methods used to model and analyze data, especially as applied to problems related to finance. Explores regression models, time-series models, decision analysis and simulation-based methods. Three lecture hours a week for one semester. Only one of the following may be counted: Statistics 371G, 371H, 375, 375H. Prerequisite: Management Information Systems 301, 301H, or 310; Mathematics 408D, 408L, 408M or 408S; Statistics 309 or 309H; and credit or registration for Business Administration 324 or 324H.

### **STA 375H. Statistics and Modeling for Finance: Honors.**

Restricted to students admitted to the McCombs School of Business Honors Program. Methods used to model and analyze data, especially as applied to problems related to finance. Explores regression models, time-series models, decision analysis and simulation-based methods. Three lecture hours a week for one semester. Only one of the following may be counted: Statistics 371G, 371H, 375, 375H. Offered on the letter-grade

basis only. Prerequisite: Management Information Systems 301, 301H, or 310; Mathematics 408D, 408L, 408M or 408S; Statistics 309 or 309H; and credit or registration for Business Administration 324H.

### **STA 376. Intermediate Statistics.**

Restricted to students in a business major. Analysis of forecasting techniques and theory; macroeconomic models; long-range and short-term forecasting; forecasting for the firm, using case material. Three lecture hours a week for one semester. Prerequisite: Statistics 301, 301H, 309 or 309H.

## **Graduate Courses**

### **STA 180, 280, 380. Seminar in Business Statistics.**

Selected topics in the applications of statistical methods to business problems. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

**Topic 1: Correlation and Regression Analysis.**

**Topic 2: Design of Experiments.**

**Topic 3: Statistical Computing with SAS.**

**Topic 4: Nonparametric Methods.**

**Topic 5: Statistical Consulting.** Additional prerequisite: Coursework in mathematical statistics and regression.

**Topic 6: Survey Research Methods.**

**Topic 7: Forecasting.** Development of forecasting techniques for use in business applications. Additional prerequisite: Business Administration 386T or the equivalent.

**Topic 8: Cybernetics and the Law: Societal, Economic, and Other Problems.**

**Topic 9: Applied Linear Models.** Theory and application of linear models in empirically oriented research in business. Additional prerequisite: Business Administration 386T or the equivalent.

**Topic 10: Mathematical Statistics for Applications.** Applications-oriented treatment of mathematical statistics for graduate students who plan to use statistical methods in their research but do not need a highly mathematical development of the subject. Major focus on regression models and related methods. Extensive use of statistical software for data analysis and modeling. Emphasis on understanding how the mathematics of probability and statistics both enables and limits the data analysis that can be done. Additional prerequisite: Differential and integral calculus; familiarity with basic statistics through linear regression.

**Topic 11: Analysis of Variance.** Additional prerequisite: Business Administration 386T or the equivalent.

**Topic 12: Applied Multivariate Methods.** Additional prerequisite: Business Administration 386T or the equivalent, and familiarity with statistical software.

**Topic 13: Statistical Decision Theory.** Development of the mathematical basis of statistical decision theory from both the Bayesian and the frequentist point of view. Additional prerequisite: A calculus-level course in statistics.

**Topic 14: Risk Analysis and Management.** The quantification and analysis of risk, considered from several perspectives: financial risk measures, strategic risk measures, stochastic dominance rules, chance constrained programming, and safety-first approaches.

**Topic 15: Research on Probabilistic Judgment.** Research training and experience for graduate students and advanced Canfield Business Honors Program undergraduate students who are interested in probabilistic judgment. Additional prerequisite: Statistics 309H or the equivalent and consent of instructor.

**Topic 16: Probability and Science in the Courtroom.** The role of probability and scientific reasoning in legal judgments: differences between probability evidence and other types of evidence; legal and

psychological implications of these differences; the role of statistics, formal analyses, and expert opinions in legal decisions; their impact on judges and jurors. Management Science 380 (Topic 20) and Statistics 380 (Topic 16) may not both be counted.

**Topic 17: Predictive Modeling.** Introduction to statistical methods for prediction including regression analysis, logistic and multinomial regression, classification and regression trees, bias-variance trade-off, cross validation, variable selection, principal component regression and partial least squares regression. Additional prerequisite: Consent of instructor.

**Topic 18: Learning Structures and Time Series.** Introduction to exploring data analysis, clustering, dimension reduction, networks, text mining, and time series. Additional prerequisite: Consent of instructor.

### **STA 280N. Topics in Statistics.**

Two lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

**Topic 1: Advanced Statistics and Econometrics with R.** Statistics 280N (Topic 1) and 284N (Topic: Advanced Statistics And Econom) may not both be counted. Offered on the letter-grade basis only.

### **STA 381. Sampling.**

Theory of sampling; sample design, including stratified, systematic, and multistage sampling; nonsampling errors. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Business Administration 386T.

### **STA 184N, 284N, 384N. Topics in Business Analytics.**

Restricted to students admitted to Master's of Science in Information, Risk, and Operations Management program. Selected topics in business analytics. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **STA 287, 387. Business Analytics and Decision Modeling.**

Introduction to some of the basic concepts in quantitative business analysis that are used to support organizational decision making over various time frames. Explores methods that apply to all areas of an organization, with emphasis on financial decision making. For 287, four lecture hours a week for a half a semester; for 387, three lecture hours a week for one semester. Prerequisite: Graduate standing and admission to the McCombs School of Business.

### **STA 287C. Business Analytics and Decision Modelling for Executives.**

Restricted to students in the Executive MBA Program. Examine risky decision-making with an emphasis on case studies that show how Excel models can be used to improve decision-making. Two lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing.

## **Professional Courses**

# **Studio Art Courses**

## **Studio Art: ART**

### **Lower-Division Courses**

#### **ART 310P (TCCN: ARTS 2333). Introduction to Print.**

Restricted to studio art and visual art studies majors. Introduction to the concepts, methods, and materials of print including a combination of intaglio, relief, lithography, serigraphy, and/or book arts. Six laboratory hours a week for one semester. Offered on the letter-grade basis only.

Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

#### **ART 311C (TCCN: ARTS 1316). Core Studio: Drawing.**

Restricted to art history, studio art, and visual art studies majors. Explore techniques of drawing in a contemporary context. Focus on line, line weight, continuous line, contour line, sighting, figure, gesture, perspective (two point, three point, and isometric/orthogonal drawing), value, color, and texture. Six laboratory hours a week for one semester. Studio Art 302C and 311C may not both be counted. Offered on the letter-grade basis only.

#### **ART 311K (TCCN: ARTS 2316). Painting I.**

Restricted to studio art and visual art studies majors. Introduction to painting techniques, composition, and exploration of personal expression. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

#### **ART 312C (TCCN: ARTS 1311). Core Studio: 2D.**

Restricted to art history, studio art, and visual art studies majors. Create planar works and explore formal principles and conceptual concerns in a contemporary context. Six laboratory hours a week for one semester. Studio Art 301C and 312C may not both be counted. Offered on the letter-grade basis only.

#### **ART 313C (TCCN: ARTS 1312). Core Studio: 3D.**

Restricted to art history, studio art, and visual art studies majors. Create spatial works and explore formal principles and conceptual concerns in a contemporary context. Six laboratory hours a week for one semester. Studio Art 303C and 313C may not both be counted. Offered on the letter-grade basis only.

#### **ART 313K (TCCN: ARTS 2326). Beginning Sculpture.**

Restricted to studio art and visual art studies majors. Introduction to the processes involved in the production of object-oriented sculpture using direct methods of hot and cold construction. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

#### **ART 314C. Core Studio: Time and Technology.**

Restricted to art history, studio art, and visual art studies majors. Explore time-based media and digital technology in a contemporary context. Six laboratory hours for one semester. Offered on the letter-grade basis only.

#### **ART 315K (TCCN: ARTS 1317). Beginning Drawing.**

Restricted to studio art and visual art studies majors. Exploration of various methods, subjects, and expressive possibilities in drawing. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

#### **ART 316K (TCCN: ARTS 2323). Beginning Life Drawing.**

Restricted to studio art and visual art studies majors. Problems in drawing and construction of the human figure in selected media. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

**ART 316V. Transmedia: Expanded Media I.**

Introduction to video, digital, net.art, and multiple media art forms with an emphasis on experimentation and a DIY approach to production. Focuses on the history, theory, and evolution of media art practices and their relation to the Internet and social media networks. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

**ART 317C. Transmedia: Performance Art I.**

An introduction to the practice, history, and theory of performance art in a variety of contexts and spaces, including theatrical, the white cube, and the workaday world. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

**ART 317K (TCCN: ARTS 2356). Beginning Photography.**

Restricted to studio art and visual art studies majors. An introduction to still photography, including basic technical skills and concepts. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

**ART 318C. Transmedia: Digital Time-Art I.**

Study in digital video, sound, and animation, with emphasis on the exploration of movement, image, and montage. Guided inquiry into pertinent conceptual, perceptual, and practical skills. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

**ART 119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, 919Q. Topics in Studio Art.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**ART 319T. Topics in Studio Art: Laboratory.**

Restricted to studio art and visual art studies majors. Intensive study of various disciplines of studio art. Six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

**Upper-Division Courses****ART 320F. Digital Fabrication I.**

Restricted to studio art and visual art studies majors. Study of the artistic culture and techniques associated with digital visualization, three dimensional data acquisition, and various forms of digital fabrication including 3D Printing, computer numerical controlled milling, and Laser Cutting. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

**ART 320K. Topics in Studio Art.**

Six laboratory hours a week for one semester. May not be counted toward a degree in the Department of Art and Art History. May be repeated for credit when the topics vary.

**ART 320L. Topics in Studio Art.**

Continuation of Studio Art 320K. Six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and Studio Art 320K with a grade of at least C.

**ART 321K. Painting II.**

Restricted to studio art and visual art studies majors. Problems in composition and exploration of personal expression. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 311K with a grade of at least C.

**ART 322K. Intermediate Drawing.**

Restricted to studio art and visual art studies majors. Continuation of Studio Art 315K. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 315K with a grade of at least C.

**ART 323K. Intermediate Sculpture.**

Restricted to studio art and visual art studies majors. Exploration of the concepts and processes involved in the production of object-oriented sculpture, with emphasis on indirect methods of mold-making and casting. Encourages individual direction. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 313K with a grade of at least C.

**ART 323S. Installation Sculpture.**

Restricted to studio art and visual art studies majors. Exploration of the theories and methods involved in the production of installation sculpture through the investigation of form and space and of their function in transforming environmental, architectural, or invented sites. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 313K with a grade of at least C.

**ART 325G. Intermediate Print: Serigraphy.**

Restricted to studio art and visual art studies majors. Practice in the theories and techniques of multicolor serigraphy and photoserigraphy. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 310P with a grade of at least C.

**ART 325J. Intermediate Print: Relief.**

Restricted to studio art and visual art studies majors. Instruction in relief print processes in conjunction with digital technologies. Utilization of laser cutters, CNC routers, and large-format photo printers as well as traditional techniques to generate dynamic projects in woodcut, linocut, and more. Emphasis on contemporary print practice in the expanded field. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 310P with a grade of at least C.

**ART 325K. Intermediate Print: Intaglio.**

Restricted to studio art and visual art studies majors. Instruction in the theories and techniques of intaglio printmaking, color, assemblage, stencil, viscosity, collography, photo process, and relief. Six laboratory hours a week for one semester. May be taken twice for credit. May be

repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 310P with a grade of at least C.

### **ART 325M. Intermediate Print: Lithography.**

Restricted to studio art and visual art studies majors. Instruction in the theories and techniques of metal plate, multicolor, and stone lithography and photolithography. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 310P with a grade of at least C.

### **ART 129Q, 229Q, 329Q, 429Q, 529Q, 629Q, 729Q, 829Q, 929Q. Topics in Studio Art.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Art and Art History. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **ART 330P. Advanced Print Workshop.**

Restricted to studio art and visual art studies majors. Focuses on the concepts and practice of print. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 310P with a grade of at least C, and one of the following with a grade of at least C: Studio Art 325J, 325K, 325G, or 325M.

### **ART 335K. Intermediate Photography.**

Restricted to studio art and visual art study majors. Practice in still photography, including materials and processes. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 317K with a grade of at least C.

### **ART 336V. Transmedia: Expanded Media II.**

Advanced practice of media art exploring time, space, and reality through multidimensional forms. An investigation of media technologies and networks: aesthetically, formally, theoretically or conceptually using traditional media, new media, and immaterial approaches. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 337C. Transmedia: Performance Art II.**

Advanced workshop in performance art that focuses on the development of researched solo and collaborative projects. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 338C. Transmedia: Digital Time-Art II.**

Study in digital video, sound, and animation, with emphasis on the exploration of cinematic time and its time-based installation. Guided inquiry into the relationship between video and video projections, and technics and technology. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 340F. Digital Fabrication II.**

Restricted to studio art and visual art studies majors. Advanced study of the artistic culture and techniques associated with digital visualization, three dimensional data acquisition, and various forms of digital fabrication including 3D Printing, computer numerical controlled milling, and Laser Cutting. Six laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 320F and twelve additional hours of studio credit, with a grade of at least C in each.

### **ART 341K. Painting III.**

Restricted to studio art and visual art studies majors. Continuation of Studio Art 321K. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 321K with a grade of at least C.

### **ART 346K. Intermediate Life Drawing.**

Restricted to studio art and visual art studies majors. Advanced problems in drawing and construction of the human figure. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 316K with a grade of at least C.

### **ART 350. Philosophy, Theory, and Criticism.**

Restricted to studio art and visual art studies majors. Advanced exploration of philosophy, theory, and criticism from a studio art perspective. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

### **ART 350C. The New Color.**

A study of color through the lenses of science, technology, psychology, arts, design and popular culture. Exploration of color using thought experiments, written analysis, tools for independent inquiry with creative research projects, collaborative teamwork exercises, and hands-on experiments. Three lecture hours or two lecture hours and one lab/discussion a week for one semester. Offered on the letter-grade basis only.

### **ART 350M. Topics in Studio Art Practice.**

Six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **ART 350N. Topics in Studio Art Lecture.**

Three hours once a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

### **ART 350P. Professional Practices.**

Restricted to studio art and visual art studies majors. Exploration of professional practices as they relate to the field of visual arts. Focus on writing an artist statement and resume, as well as learning about writing and applying for exhibition, grant, and residency opportunities. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C).

### **ART 352C. Painting for Nonmajors.**

Restricted to non-department of art and art history majors. Exploration of various methods, subjects, and expressive possibilities in painting. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 352D. Drawing for Nonmajors.**

Restricted to non-department of art and art history majors. Exploration of various methods, subjects, and expressive possibilities in drawing. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 352E. Figure Drawing for Nonmajors.**

Restricted to non-department of art and art history majors. Exploration of the human figure in selected media. Six laboratory hours a week for

one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 352F. Print for Nonmajors.**

Restricted to non-department of art and art history majors. Exploration of the concepts, methods, and materials of print. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 352G. Sculpture for Nonmajors.**

Restricted to non-department of art and art history majors. Exploration of the processes involved in the production of object-oriented sculpture. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 352J. Photography for Nonmajors.**

Restricted to non-department of art and art history majors. Exploration of still photography. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 352K. Transmedia for Nonmajors.**

Restricted to non-department of art and art history majors. Exploration of time-based media. Six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 355. Studio Projects.**

Restricted to studio art and visual art studies majors. Study of specific techniques or problems. Six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Studio Art 311C, 312C, 313C, and 314C with a grade of at least C in each (or two of the following three courses with a grade of at least C in each: Studio Art 301C, 302C, 303C), and twelve additional semester hours of coursework in studio art with a grade of at least C in each course.

**Topic 1: Design Issues.** Offered on the letter-grade basis only.

**Topic 2: Installation of Film Art.** Offered on the letter-grade basis only.

**Topic 3: Monoprinting and Relief Printing.** Offered on the letter-grade basis only.

### **ART 356V. Transmedia: Expanded Media III.**

Student-initiated research and development of complex media art and hybrid media art projects. Six laboratory hours a week for one semester. May be taken three times for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 336V with a grade of at least C.

### **ART 357C. Transmedia: Performance Art III.**

Advanced independent inquiry into the development of performance art projects requiring focused research and time. Six laboratory hours a week for one semester. May be taken three times for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 358C. Transmedia: Digital Time-Art III.**

Advanced study in video, sound, and animation with an emphasis on individual research reflecting students' artistic goals. Six laboratory hours a week for one semester. May be taken three times for credit. May be repeated for credit. Offered on the letter-grade basis only.

### **ART 361K. Painting IV.**

Restricted to studio art and visual art studies majors. Continuation of Studio Art 341K. Six laboratory hours a week for one semester. May be taken three times for credit. May be repeated for credit. Offered on the

letter-grade basis only. Prerequisite: Studio Art 341K with a grade of at least C.

### **ART 363K. Advanced Sculpture.**

Restricted to studio art and visual art studies majors. Advanced research in the theory, technology, and methods involved in the production of sculpture, with emphasis on individual direction. Six laboratory hours a week for one semester. May be taken three times for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 323K or 323S with a grade of at least C.

### **ART 366K. Advanced Life Drawing.**

Restricted to studio art and visual art studies majors. Problems in drawing and construction of the human figure. Six laboratory hours a week for one semester. May be taken three times for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 346K with a grade of at least C.

### **ART 368N. Advanced Drawing.**

Restricted to studio art and visual art studies majors. Continuation of Studio Art 322K. Six laboratory hours a week for one semester. May be taken three times for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 322K with a grade of at least C.

### **ART 372K. Advanced Photography.**

Restricted to studio art and visual art studies majors. Practice in photography with an emphasis on long-term photography-based projects, more advanced technical knowledge, and a deeper familiarity with uses of the medium. Six laboratory hours a week for one semester. May be taken three times for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 317K and 335K with a grade of at least C in each.

### **ART 376. Independent Study: Studio Art.**

Restricted to studio art and visual art studies majors. Individual projects to be completed under faculty supervision. The equivalent of six laboratory hours a week for one semester. May be taken twice for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Completion of at least fifteen semester hours of upper-division coursework in studio art, a grade point average of at least 3.00 in upper-division studio art, and consent of the studio assistant chair of the department.

### **ART 376K. Contemporary Issues in Photography.**

Restricted to studio art and visual art studies majors. Inquiry of specific themes in photography which can include: photographic intervention, photography since 1945, photo book making, abstraction in photography, appropriation in photography, and lighting for photography. Six laboratory hours a week for one semester. May be taken three times for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Studio Art 317K and 335K with a grade of at least C in each.

### **ART 179S, 379S. Advanced Topics in Studio Art: Lecture.**

Restricted to studio art and visual art studies majors. Intensive advanced study of various disciplines of studio art. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Studio Art 311C, 312C, 313C, and 314C (or Studio Art 301C and 302C) with a grade of at least C in each; and twelve additional semester hours of coursework in studio art with a grade of at least C in each course.

### **ART 279T, 379T. Advanced Topics in Studio Art: Laboratory.**

Restricted to studio art and visual art studies majors. Intensive advanced study of various disciplines of studio art. The equivalent of three or six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; Studio Art 311C, 312C, 313C, and 314C (or Studio Art 301C and 302C) with a grade of at least C in each; and twelve additional semester hours of coursework in studio art with a grade of at least C in each course.

## **Graduate Courses**

### **ART 380, 480. Group Critique in Studio Art.**

Group critiques of student artwork organized under the leadership of the instructor, in addition to regular individual studio visits between the instructor and each student. For each semester hour of credit earned, one lecture hour a week for one semester with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Graduate standing in studio art and consent of the graduate adviser.

### **ART 181, 281, 381, 481, 581, 681, 781. Graduate Committee Study.**

Studio hours to be arranged. May be repeated for credit. Prerequisite: Graduate standing in studio art and consent of instructor and the graduate adviser.

### **ART 382. Seminar in Studio Art.**

Addresses topics and issues in contemporary art. Uses lectures, readings, guest presentations, discussions, and writings to articulate and define contemporary art practices. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing in studio art and consent of the graduate adviser.

### **ART 482T. Topics Seminar in Studio Art.**

Topics and issues in contemporary art. Lectures, readings, guest presentations, discussions, and writings provide an opportunity for students to discuss the production and reception of culture. Four lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in studio art and consent of the graduate adviser.

### **ART 383, 483. Graduate Independent Study Outside Student's Concentration.**

Studio hours to be arranged. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor and the graduate adviser.

### **ART 384F, 484F. Master of Fine Arts First-Year Seminar.**

Restricted to first-semester graduate students in studio art. Introduction to the extensive research assets of the University. Focus on critical assessment skills and developing effective and consistent habits for working in the studio. For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Graduate standing in studio art and consent of the graduate adviser.

### **ART 384S. Master of Fine Arts Assembly.**

Restricted to second-semester graduate students in studio art. Continuation of Studio Art 384F. Focuses on critiquing skills, talking and writing about artwork, and defining effective studio practices. Students work with peers and faculty from across the studio disciplines. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing and Studio Art 384F with a grade of at least B.

### **ART 390. Advanced Issues in Studio Art.**

Restricted to graduate students in design or studio art. Intensive advanced study of various disciplines of studio art. May be repeated for

credit when the topics vary. Prerequisite: Graduate standing, consent of graduate adviser, and consent of instructor.

### **ART 490T. Advanced Issues in Studio Art.**

Restricted to graduate students in design or studio art. Intensive advanced study of various disciplines of studio art. The equivalent of two lecture hours a week and four laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, consent of graduate adviser, and consent of instructor.

### **ART 398P, 498P. Professional Practices for Fine Artists.**

Restricted to second-year studio art graduate students. Study of effective strategies for entering various aspects of the art world. Experiences may include lectures, guest specialists, field trips, and readings. For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Graduate standing in studio art and consent of instructor and the graduate adviser.

### **ART 398R. Master's Portfolio Report.**

Written interpretation of the artwork created in the graduate program, addressing influences on and concepts of the work, and including a digital portfolio of major works and influences. The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in studio art, concurrent enrollment in Studio Art 398S, and consent of the graduate adviser.

### **ART 398S, 498S. Master's Exhibition Seminar.**

Preparation for the presentation of a professional exhibition in which significant work from each student is displayed. The exhibition is curated by the instructor with all students collaborating in its execution. The students' final sixty-hour review takes place during the exhibition and is individually conducted by faculty committee. At a later date during the exhibition, students publicly discuss and present their work in a colloquium open to the public. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in studio art, concurrent enrollment in Studio Art 398R, and consent of the graduate adviser.

### **ART 398T. Teaching Methodologies in Studio Art.**

Training in teaching methods and procedures for studio art classes, including weekly group meetings with the instructor and individual consultations. Three lecture hours a week for one semester. Prerequisite: Graduate standing in studio art, or graduate standing and appointment as a teaching assistant; and consent of the graduate adviser.

## **Professional Courses**

# **Sustainability Studies Courses**

## **Sustainability Studies: SUS**

### **Lower-Division Courses**

#### **SUS 301. Introduction to Sustainability Studies.**

Introduction to basic concepts in sustainability, including the varied disciplinary approaches used to theorize and practice sustainability. Explore these concepts through foundational sustainability scholarship, place-based experiential learning opportunities, and team-based projects. Three lecture hours a week for one semester.

### **Upper-Division Courses**

#### **SUS 374. Capstone Experience in Sustainability Studies.**

Work independently to complete a research project that assembles and integrates knowledge and skills acquired across your university career. Current concerns and methodology in the field of Sustainability Studies;

an introduction to theory and research in Sustainability topics. Three lecture hours a week and a minimum of seventy hours of field research work for one semester. Prerequisite: Upper-division standing.

### **SUS 679H. Honors Tutorial Course.**

For honors candidates in sustainability studies. Read selected works individually for one semester, followed in the second semester by the writing of an honors thesis. Participate in regular conferences with the faculty supervisor. The equivalent of three lecture hours a week for two semesters. Prerequisite: For 679HA, a University GPA of at least 3.0 and a GPA in sustainability studies of at least 3.5. For 679HB, Sustainability Studies 679HA.

### **SUS 379L. Directed Internships in Sustainability.**

Experience working in an appropriate government agency, non-governmental organization, or private business. Three lecture hours a week and a minimum of seventy hours of internship work for one semester. Prerequisite: Upper-division standing.

## **Graduate Courses**

## **Professional Courses**

## **Swahili Courses**

### **Swahili: SWA**

#### **Lower-Division Courses**

##### **SWA 601C. Intensive Swahili I.**

Six lecture hours a week for one semester. Swahili 601C and 506 may not both be counted. Swahili 601C and 507 may not both be counted.

##### **SWA 506. First-Year Swahili I.**

Five lecture hours a week for one semester. Swahili 601C and 506 may not both be counted.

##### **SWA 507. First-Year Swahili II.**

Five lecture hours a week for one semester. Swahili 601C and 507 may not both be counted. Prerequisite: Swahili 506.

##### **SWA 611C. Intensive Swahili II.**

Six lecture hours a week for one semester. Swahili 611C and 312K may not both be counted. Swahili 611C and 312L may not both be counted. Prerequisite: Swahili 601C.

##### **SWA 612. Accelerated Second-Year Swahili.**

Not open to native speakers of Swahili. Eight lecture hours a week for one semester.

##### **SWA 312K. Second-Year Swahili I.**

Three lecture hours a week for one semester. Swahili 611C and 312K may not both be counted. Prerequisite: Swahili 507.

##### **SWA 312L. Second-Year Swahili II.**

Three lecture hours a week for one semester. Swahili 611C and 312L may not both be counted. Prerequisite: Swahili 312K.

#### **Upper-Division Courses**

##### **SWA 360. Conference Course in Swahili Language and Literature.**

Supervised individual study of selected problems in Swahili language or literature. Conference course. May be repeated for credit. Prerequisite: Consent of instructor.

## **Graduate Courses**

## **Professional Courses**

## **Swedish Courses**

### **Swedish: SWE**

#### **Lower-Division Courses**

##### **SWE 604. Accelerated First-Year Swedish.**

Six lecture hours a week for one semester, with optional laboratory available.

##### **SWE 612. Accelerated Second-Year Swedish.**

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Swedish 604.

##### **SWE 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Swedish.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer work is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **Upper-Division Courses**

##### **SWE 327. Advanced Swedish I.**

Three lecture hours a week for one semester. Prerequisite: Swedish 612 with a grade of at least C.

##### **SWE 328. Advanced Swedish II.**

Three lecture hours a week for one semester. Prerequisite: Swedish 327 with a grade of at least C.

##### **SWE 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Swedish.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

##### **SWE 130D. Swedish across Disciplines.**

Read and discuss Swedish language materials related to the subject matter of another designated course. One lecture hour a week for one semester. May be repeated for credit. Prerequisite: Three semester hours of upper-division coursework in Swedish with a grade of at least C.

##### **SWE 379. Conference Course in Swedish Language or Literature.**

Supervised individual study of selected problems in Swedish language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## **Graduate Courses**

## **Professional Courses**

# Tamil Courses

## Tamil: TAM

### Lower-Division Courses

#### TAM 604. Accelerated First-Year Tamil.

Not open to native speakers of Tamil. Designed for students who understand or speak but do not read or write Tamil. Six class hours a week for one semester. Tamil 604 and 506 may not both be counted; Tamil 604 and 507 may not both be counted.

#### TAM 506. First-Year Tamil I.

Not open to native speakers of Tamil. Five lecture hours a week for one semester. Tamil 506 and 604 may not both be counted.

#### TAM 507. First-Year Tamil II.

Not open to native speakers of Tamil. Five lecture hours a week for one semester. Tamil 604 and 507 may not both be counted. Prerequisite: Tamil 506 with a grade of at least C.

#### TAM 612. Accelerated Second-Year Tamil.

Not open to native speakers of Tamil. Continuation of Tamil 604. Designed for students who understand or speak but do not read or write Tamil. Six class hours a week for one semester. Tamil 612 and 312K may not both be counted; Tamil 612 and 312L may not both be counted. Prerequisite: Tamil 604 with a grade of at least C.

#### TAM 312K. Second-Year Tamil I.

Not open to native speakers of Tamil. Three lecture hours a week for one semester. Tamil 612 and 312K may not both be counted. Prerequisite: Tamil 507 with a grade of at least C.

#### TAM 312L. Second-Year Tamil II.

Not open to native speakers of Tamil. Three lecture hours a week for one semester. Tamil 612 and 312L may not both be counted. Prerequisite: Tamil 312K with a grade of at least C.

### Upper-Division Courses

#### TAM 320K. Advanced Tamil I.

Not open to native speakers of Tamil. Three lecture hours a week for one semester. Prerequisite: Tamil 312L with a grade of at least C.

#### TAM 320L. Advanced Tamil II.

Not open to native speakers of Tamil. Three lecture hours a week for one semester. Prerequisite: Tamil 320K with a grade of at least C.

#### TAM 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Tamil.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### TAM 330. Topics in Tamil Language and Literature.

Not open to native speakers of Tamil. Study of specific subjects related to South Asian culture as reflected in Tamil literary productions and other modes of expression. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Tamil 312L with a grade of at least C.

#### TAM 360. Conference Course in Tamil Language and Literature.

Supervised individual study of selected problems in Tamil language and literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor on form obtained from the undergraduate adviser.

### Graduate Courses

#### TAM 381. Conference Course in Tamil Language and Culture.

Supervised individual study in Tamil language or culture. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor on form obtained from the graduate coordinator.

#### TAM 384. Topics in Tamil Language and Culture.

Study of various aspects and periods of Tamil language and culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Tamil 312L with a grade of at least C.

### Professional Courses

## Telugu Courses

### Telugu: TEL

#### Lower-Division Courses

#### TEL 604. Accelerated First-Year Telugu.

Six lecture hours a week for one semester. Telugu 604 and 506 may not both be counted; Telugu 604 and 507 may not both be counted.

#### TEL 506. First-Year Telugu I.

Not open to native speakers of Telugu. Five class hours a week for one semester. Telugu 604 and 506 may not both be counted.

#### TEL 507. First-Year Telugu II.

Not open to native speakers of Telugu. Five class hours a week for one semester. Telugu 604 and 507 may not both be counted. Prerequisite: Telugu 506 with a grade of at least C.

#### TEL 612. Accelerated Second-Year Telugu.

Continuation of Telugu 604. Six lecture hours a week for one semester. Telugu 612 and 312K may not both be counted; Telugu 612 and 312L may not both be counted. Prerequisite: Telugu 604.

#### TEL 312K. Second-Year Telugu I.

Not open to native speakers of Telugu. Three lecture hours a week for one semester. Telugu 612 and 312K may not both be counted. Prerequisite: Telugu 507 with a grade of at least C.

#### TEL 312L. Second-Year Telugu II.

Not open to native speakers of Telugu. Three lecture hours a week for one semester. Telugu 612 and 312L may not both be counted. Prerequisite: Telugu 312K with a grade of at least C.

#### TEL 118K. Practice in Spoken Telugu.

Not open to native speakers of Telugu. Instruction and practice in conversation for intermediate-level students. Two lecture hours a week for one semester. Prerequisite: Telugu 507 with a grade of at least C.

#### TEL 118L. Practice in Spoken Telugu II.

Not open to native speakers of Telugu. Instruction and practice in conversation for intermediate-level students. Two lecture hours a week

for one semester. Prerequisite: Telugu 312K or 118K with a grade of at least C.

## Upper-Division Courses

**TEL 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S.**

### Topics in Telugu.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### TEL 330. Telugu Language and Literature.

Three lecture hours a week for one semester. Prerequisite: Telugu 312L with a grade of at least C.

### TEL 360. Conference Course in Telugu Language and Literature.

Individual instruction. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor on form obtained from the undergraduate adviser.

## Graduate Courses

### TEL 381. Conference Course in Telugu Language and Literature.

Supervised individual study in Telugu language or literature. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor on forms obtained from the graduate coordinator.

### TEL 384. Topics in Telugu Language and Culture.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and Telugu 312L with a grade of at least C.

## Professional Courses

# Textiles and Apparel Courses

## Textiles and Apparel: TXA

### Lower-Division Courses

#### TXA 301. Clothing the Planet.

Study of the role textiles and apparel play in human lives. Introduction to the textile and apparel industries, and the broad perspective and core skill sets that characterize the field. Subjects include terminology, fibers and fabrics, textile technology, product development through fashion design and retail merchandising, global sourcing and manufacturing, international promotion and marketing, and textile conservation, exhibition, and collection management. Three lecture hours a week for one semester.

#### TXA 103, 203, 303. Topics in Textiles and Apparel.

For each semester hour of credit earned, the equivalent of one hour a week for one semester. May be repeated for credit when the topics vary.

#### TXA 205, 305. Textiles.

Chemical and physical properties of fibers and yarns, fabric construction, and finishes. For each semester hour of credit earned, one lecture hour a week for one semester.

#### TXA 105L. Textiles Laboratory.

Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Textiles and Apparel 205.

#### TXA 212K. Apparel Industry.

Introduction to the integrated apparel design industry from the creative and merchandising perspective. Two lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration for Textiles and Apparel 212L; and the following coursework with a grade of at least C- in each course: Textiles and Apparel 316L or 316Q; and 219C or 119L.

#### TXA 212L. Apparel Product Development and Design Laboratory.

Six laboratory hours a week for one semester. Prerequisite: Credit or registration for Textiles and Apparel 212K.

#### TXA 313. Aesthetics: Theory and Practice.

Introduction to the theoretical and practical aspects of the principles of design and visual literacy in the field of textiles and apparel. Introduction to the principles and theories that define what is aesthetically pleasing and the vocabulary necessary to identify, describe, and critique them. Three lecture hours a week for one semester.

#### TXA 214K, 314K. Product Development.

Introduction to all stages of product development involved in fashion and functional design with an emphasis on target market identification, cost analysis, material selection, and the organization of product development within the industry structure. Apply product development skills and strategies involved in fashion and functional design. For 214K, two lecture hours a week for one semester; for 314K, six laboratory hours a week for one semester.

#### TXA 214L. Product Development Laboratory.

Application of product development skills and strategies involved in fashion and functional design. Emphasis on target market identification, cost analysis, material selection, and the position of product development within the industry structure. Six laboratory hours a week for one semester. Prerequisite: Concurrent registration for Textiles and Apparel 214K.

#### TXA 316L. Apparel I.

Industrial techniques of pattern design and garment construction. One lecture hour and six laboratory hours a week for one semester.

#### TXA 316Q. Sewn Products Analysis.

Evaluation of soft goods, including materials, quality of work, and costs. Three lecture hours a week for one semester. Prerequisite: Credit with a grade of at least C- or registration in Textiles and Apparel 205 and 105L.

#### TXA 219C, 319C. Applied Art in Visual Presentation.

Explore the principles and elements of design as related to merchandising presentation, display planning, execution, and coordination. For each semester hour of credit earned, one lecture hour a week for one semester.

#### TXA 119L. Applied Art in Visual Presentation Laboratory.

Application of the principles and elements of design as related to merchandise presentation, display planning, execution, and coordination. Three laboratory hours a week for one semester. Students with credit for Textiles and Apparel 319 may not earn credit for Textiles and Apparel 119L. Prerequisite: Credit with a grade of at least C- or registration for Textiles and Apparel 219C.

**TXA 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S.**  
**Topics in Textiles and Apparel.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **TXA 325K. Culture, Gender, and Appearance.**

Social, economic, aesthetic, and political aspects of historic costume and of the evolution of modern dress. Three lecture hours a week for one semester. Prerequisite: Textiles and Apparel 219C and 119L with a grade of at least C- in each, or Art History 301.

### **TXA 325L. History of Dress and Cultural Change I.**

Social, economic, aesthetic, and political aspects of costume evolution from ancient times through the Renaissance. Three lecture hours a week for one semester. Textiles and Apparel 325K and 325L may not both be counted. Prerequisite: Upper-division standing.

### **TXA 325M. History of Dress and Cultural Change II.**

Social, economic, aesthetic, and political aspects of costume evolution from the Baroque period through modern times. Three lecture hours a week for one semester. Textiles and Apparel 325K and 325M may not both be counted. Prerequisite: Upper-division standing.

### **TXA 126, 326. Apparel II.**

Advanced apparel construction techniques using industry standards and portfolio development. For 126, one lecture hour a week for one semester; for 326, one lecture and five laboratory hours a week for one semester. Prerequisite: Textiles and Apparel 316L with a grade of at least C-.

### **TXA 226L. Apparel II Laboratory.**

Advanced apparel construction techniques using industry standards and portfolio development. Six laboratory hours a week for one semester. Prerequisite: Credit or registration for Textiles and Apparel 126.

### **TXA 327. Clothing and Human Behavior.**

The social, psychological, and nonverbal significance of clothing and the influence of clothing on behavior. Three lecture hours a week for one semester. Prerequisite: Three semester hours of coursework in psychology, sociology, or the School of Human Ecology.

### **TXA 328. Research Methods in Textiles and Apparel.**

Basic research methodology and academic writing. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, completion of an introductory statistics course, and Textiles and Apparel 205 and 105L with a grade of at least C- in each.

**TXA 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S.**  
**Topics in Textiles and Apparel.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the School of Human Ecology. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **TXA 331. Textiles and Apparel in a Global Market.**

Overview of the textiles and apparel industry including apparel industry standards, labor costs, economics, distribution, and structure in the modern global marketplace. Subjects include the analysis of consumption patterns and retailing systems to inform product development; exploring cross-cultural comparisons between global consumer markets; understanding importing and exporting systems and other procedures involved in modern supply chain activities; and grasping the collaborative nature of innovation and design, manufacturing and distribution, retailing, and customer satisfaction leading to sales in the global market. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **TXA 350. Advanced Apparel Design Portfolio.**

Extensive sociological, cultural, and historic visual research for apparel design. Through a range of projects that incorporate computer-aided design, product illustration, technical packets, proposed production plans, and target market identification, students will produce a professional level, hard copy and online, portfolio that will help prepare them for a career in the apparel industry. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing; Textiles and Apparel 164K (Topic 1) and 264L (Topic 1); and admission to the Apparel Design Internship Program.

### **TXA 151. Pre-Internship Seminar.**

Preparation course for students seeking internships. Subjects include application, internship interview process, effective professional communication, ethical decision making, leadership development, site expectations, and the impact of business environments on personal and career effectiveness in the field of textiles and apparel. One lecture hour a week for one semester. Prerequisite: Upper-division standing, Textiles and Apparel 301, 205, 105L, 214K, 214L, 316Q, 219C, 119L, and 376.

### **TXA 352C, 652C. Field Experience in Textile Conservation.**

Participation in an approved internship after completion of all conservation science stream coursework. Students will be placed in an appropriate site under the supervision of an available professional such that students may experience collection management, artifact storage and conservation, exhibit planning/installation, environmental monitoring, and/or other museum or conservation activities. A formal agreement between the faculty supervisor and internship sponsor will govern activities and be monitored throughout the experience through assignments, regular electronic communication, and a site visit. For Textiles and Apparel 352C, a minimum of 150 hours of supervised fieldwork for one semester. For Textiles and Apparel 652C, a minimum of 225 hours of supervised fieldwork for one semester. Prerequisite: Upper-division standing; and Admission to the Conservation Certificate Program, or Textiles and Apparel 219C, 119L, 354C, 354D, 354E, 354F, and 355D, and admission to the Conservation Internship Program for Conservation Science, Option IV major.

### **TXA 352D. Field Experience in Apparel Design.**

Application of apparel design techniques and principles in a professional environment. At least 154 hours of fieldwork for one semester. Prerequisite: Admission to the Apparel Design Internship Program, and Textiles and Apparel 164K (Topic 1: Flat Pattern) and 264L (Topic 1: Flat Pattern) with a grade of at least C- in each.

### **TXA 352M. Field Experience in Retail Merchandising.**

Application of merchandising techniques and principles in a professional environment. At least 154 hours of supervised fieldwork for one semester. Prerequisite: Admission to the Retail Merchandising Internship Program.

### **TXA 353. Field Experience I.**

Application of merchandising strategic planning in a professional environment with faculty and site director supervision. At least 150 hours of supervised fieldwork for one semester. Textiles and Apparel 315K and Textiles and Apparel 353 may not both be counted. Prerequisite: Admission to the Retail Merchandising Internship Program.

### **TXA 354C. Material Properties and Deterioration.**

Overview of the major mechanisms of textile deterioration from a variety of sources including light, dirt, various insects and microorganisms, as well as mechanical wear and tear. Examination of the peculiarities of these deterioration phenomena through the study of the basic chemical and physical properties of the fibers constituting the textiles. Three lecture hours a week for one semester. Prerequisite: Textiles and Apparel 354E with a grade of C- or better.

### **TXA 354D. Instrumental Methods for Conservation Assessment.**

Overview of primary instrumental methods for evaluating historical textiles in terms of physical characteristics, chemical content, strength loss, structural deterioration, color change, and overall structural integrity and status of impact of environmental factors. Focus on instrumental features, measuring procedures, and interpretation of instrumental data. Three lecture hours a week for one semester. Prerequisite: Textiles and Apparel 354E with a grade of at least C-.

### **TXA 354E. Conservation Planning and Preventive Treatments.**

Implementation and management of textile conservation. Subjects include general requirements for preserving historical textiles, procedures for planning textile conservation projects, and major physical and chemical methods of preventive and postdamage treatments for historical textiles. One lecture hour and four laboratory hours a week for one semester. Prerequisite: The following with a grade of at least C-: Chemistry 320M, Textiles and Apparel 260L, and 260M.

### **TXA 354F. Advanced Exhibit Planning and Installation.**

Planning and implementation of a full museum exhibit including budget, selection and preparation of artifacts, prop construction, signage, educational and promotional materials, donor/supporter communication, and opening event. Serves as a pre-internship/capstone course for conservation science majors. Six laboratory hours a week for one semester. Prerequisite: Textiles and Apparel 325L, 325M, and 355D.

### **TXA 155, 355. Problems Course.**

Intensive study of selected problems of an interdisciplinary nature. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

### **TXA 355C. Computer-Aided Design for Apparel.**

Computer technology used to create textile prints, weaves, illustrations, flat patterns, promotional pieces, and pattern markers. One lecture hour and six laboratory hours a week for one semester. Prerequisite: Textiles and Apparel 205 and 105L with a grade of at least C- in each; and credit with a grade of at least C- or registration for Textiles and Apparel 164K (Topic 1: Flat Pattern) and 264L (Topic 1: Flat Pattern); for non-majors, consent of instructor.

### **TXA 355D. Textiles Artifact Management and Conservation.**

Principles and techniques in the identification, documentation, conservation, and exhibition of textile-based artifacts. Six laboratory hours a week for one semester. Prerequisite: Textiles and Apparel 325M.

### **TXA 355K. Textile and Apparel Economics.**

Economic and regulatory aspects of the textile and apparel industries. Three lecture hours a week for one semester. Prerequisite: Textiles and Apparel 205 and 105L with a grade of at least C- in each, and Economics 304K and 304L with a grade of at least C- in each.

### **TXA 355N. History of Textiles.**

Role of textiles in the social, economic, aesthetic, and technological development of society; including production and design of textiles throughout history. Three lecture hours a week for one semester. Prerequisite: Textiles and Apparel 205 and 105L and three semester hours of coursework in art history, with a grade of at least C- in each course.

### **TXA 355P. Problems in Retail Merchandising.**

Intensive study of selected problems related to field experience; development of analytical and problem-solving skills for retailing. At least 154 hours of supervised fieldwork for one semester. Prerequisite: Admission to the Retail Merchandising Internship Program.

### **TXA 359H. Honors Reading Course.**

Supervised individual reading on special subjects. Conference course. Prerequisite: Upper-division standing, a University grade point average of at least 3.00, and consent of the undergraduate adviser.

### **TXA 360. Textile Testing.**

Analyze and evaluate textile performance. Four-and-one-half laboratory hours a week for one semester. Textiles and Apparel 360 and 260M may not both be counted. Prerequisite: Credit or registration for Textiles and Apparel 260L.

### **TXA 260L, 360L. Advanced Textiles.**

Composition, structure, and properties of textile products; contributions of textile research. For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Textiles and Apparel 205 and 105L; Chemistry 301, 302, or 304K, 305; six semester hours of upper-division coursework in textiles and apparel with a grade of at least C- in each course; and credit with a grade of at least C- or registration for Textiles and Apparel 260M.

### **TXA 361. Consumer Behavior in the Marketplace.**

Internal and external factors that influence consumer behavior in the marketplace. Application of concepts and theories from the social sciences to the areas of textiles, clothing, and appearance; experience in conducting market and consumer research. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and three semester hours of coursework in economics.

### **TXA 364C. Advanced Apparel Design: Flat Pattern.**

Explore the creative application of flat pattern processes. One lecture hour and five lab hours a week for one semester. Textiles and Apparel 364C and 164K (Topic 1) may not both be counted. Textiles and Apparel 364C and 264L (Topic 1) may not both be counted. Prerequisite: Textiles and Apparel 212K, 212L, 316L, 126, and 226L, with a grade of at least C- in each; and credit with a grade of at least C- or registration for Textiles and Apparel 326.

### **TXA 364D. Advanced Apparel Design: Draping.**

Examine advanced apparel design. Explore the creative application of draping processes. One lecture hour and five lab hours a week for one semester. Textiles and Apparel 364D and 164K (Topic 2) may not both be counted. Textiles and Apparel 364D and 264L (Topic 2) may not both be counted. Prerequisite: Textiles and Apparel 212K, 212L, 316L, 126,

and 226L, with a grade of at least C- in each; and credit with a grade of at least C- or registration for Textiles and Apparel 364C.

### **TXA 364E. Advanced Apparel Design: Collections.**

Examine advanced apparel design. Explore the creation of an apparel collection. One lecture hour and five lab hours a week for one semester. Textiles and Apparel 364E and 164K (Topic 3) may not both be counted. Textiles and Apparel 364E and 264L (Topic 3) may not both be counted. Prerequisite: Textiles and Apparel 212K, 212L, 316L, 126, and 226L, with a grade of at least C- in each; and credit with a grade of at least C- or registration for Textiles and Apparel 364D.

### **TXA 164K. Advanced Problems in Clothing.**

Creative application of flat pattern or draping processes. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Textiles and Apparel 212K, 212L, 316L, 126, and 226L, with a grade of at least C- in each; and credit with a grade of at least C- or registration for the same topic of Textiles and Apparel 264L.

### **TXA 264L. Advanced Problems in Apparel Laboratory.**

Six laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Credit with a grade of at least C- or registration for the same topic of Textiles and Apparel 164K.

### **TXA 165, 265, 365. Advanced Topics in Textiles and Apparel.**

For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing. Additional prerequisites vary with the topic.

### **TXA 376. Principles of Retail Merchandising.**

Retail strategic planning and implementation for soft goods and apparel. Three lecture hours a week for one semester. Prerequisite: Marketing 320F and six semester hours of upper-division coursework in textiles and apparel, business, studio art, or journalism.

### **TXA 377. Merchandising Systems.**

Application course focusing on the calculation and analysis of the selling price, profitability, assortment planning, purchasing, and inventory control. Includes spreadsheet application and exercises. Prerequisite: Upper-division standing; Textiles and Apparel 301, 205, 105L, 214K, 214L, 316Q, 219C, 119L, 151, and 376; and admission to the Retail Merchandising Internship Program.

### **TXA 378H. Honors Seminar in Textiles and Apparel.**

The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, a University grade point average of at least 3.00, and consent of the honors adviser.

### **TXA 379H. Honors Tutorial Course.**

Supervised individual research on a special topic in textiles and apparel; oral presentation and preparation of a scholarly paper covering the research. May be based on laboratory, library, or field research. Conference course. May be taken twice for credit. May be repeated for credit. Prerequisite: Upper-division standing, admission to the Textiles and Apparel Honors Program, Textiles and Apparel 359H with a grade of at least B-, and consent of the honors adviser.

## **Graduate Courses**

### **TXA 392. Research Problems in Textile and Apparel Technology.**

Directed research in various topics in the area of textile and apparel technology. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing

in textile and apparel technology, or graduate standing and consent of instructor.

### **TXA 394. Recent Advances in Textile and Apparel Technology.**

An in-depth study of textile and apparel topics. Students may read original research papers and carry out fieldwork assignments. Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Graduate standing in textile and apparel technology, or graduate standing and consent of instructor.

#### **Topic 1: Advances in Product Development and Technical Design.**

Development of specification, sizing, grading systems, and quality control methodology. Three lecture hours a week for one semester.

**Topic 2: International Sourcing and the Global Economy.** Economic, social, and public issues related to international production and sourcing of textiles and apparel. Three lecture hours a week for one semester.

**Topic 3: E-Commerce and Direct Marketing.** Recent developments and evaluation of nontraditional retailing of apparel. Three lecture hours a week for one semester.

**Topic 4: Textile Instrumentation.** Application of image analysis, neural networks, and wavelet transforms to textile and apparel products. Three lecture hours a week for one semester.

**Topic 5: Digital Design and Printing.** Principles and elements of digital design and printing. Recent developments in digital knits, weaves, prints, and nonwoven textiles. Two lecture hours and three laboratory hours a week for one semester.

**Topic 6: Textile Functional Finishes.** Study of the application and adaptation of functional finishes to textiles. Three lecture hours a week for one semester.

**Topic 7: Textile Microscopy and Image Analysis.** Basic techniques for characterizing fiber properties visually with a microscope and using technology and computer analysis. Three lecture hours a week for one semester.

**Topic 8: Digital Modeling of Textiles.** Recent developments in two- and three-dimensional modeling. Three lecture hours a week for one semester.

**Topic 9: Production Mechanics and Properties of Woven Fabrics.** The relationship between the mechanics of production and mechanical properties of woven fabric; the unit operations required to prepare yarns for weaving and the mechanisms employed in weaving; fabric structure, geometry, and mechanical properties; designing for specific fabric properties. Three lecture hours a week for one semester.

**Topic 10: Global Textile and Apparel Business Dynamics.** Elements of competitive strategy and planning methods within the textile complex, with an emphasis on the concepts of strategy in a mature industry, defining business in a global industry, allocating resources through strategic planning methods, and implementing strategy in single- and multi-business firms. Three lecture hours a week for one semester.

**Topic 11: Market Research in Textiles.** Study and analysis of quantitative methods employed in market research in the textile industry, including the function of market research and its proper orientation to management and decision making. Three lecture hours a week for one semester.

**Topic 12: Color Science.** The basis of modern techniques for color specification, measurement, control, and communication. Applications of color science to textiles, plastics, color reproduction, computer-based imaging, and display systems. Basic concepts are taught using computer color graphics. Three lecture hours a week for one semester.

### **TXA 395. Seminar in Textiles and Apparel.**

Lectures and discussions on current topics in textiles and apparel. Three lecture hours a week for one semester. May be repeated for credit when

the topics vary. Prerequisite: Graduate standing in textile and apparel technology, or graduate standing and consent of instructor.

**Topic 1: Mass Customization of Apparel.** The principles and implementation of newly developed three-dimensional technology for apparel mass customization.

**Topic 2: Advanced Functional Textiles.** Current science and technology concerning functional textiles. Emphasis is on the relationship between materials, development, structure, and properties.

### TXA 698. Thesis.

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in textile and apparel technology and consent of the graduate adviser; for 698B, Textiles and Apparel 698A.

## Professional Courses

# Theatre and Dance Courses

## Theatre and Dance: T D

### Lower-Division Courses

#### T D 301 (TCCN: DRAM 1310). Introduction to Theatre.

Open to all University students except majors in the Department of Theatre and Dance. A study of theatrical texts and practices of the past and present. Three lecture hours a week for one semester; attendance at all major productions of the department is required.

#### T D 302S. Arts Integrations for Multidisciplinary Connections.

Same as Fine Arts 308. Through readings, videos, in-class activities, discussion, field trips, micro-teaching, and written reflection, designed to develop a practical understanding of the techniques and skills associated with integrating the arts into various contexts. Provides experience in each art content area (dance, music, theatre arts, and visual arts) to develop an introductory understanding of each of these disciplines. Three lecture hours a week for one semester. Fine Arts 308 and Theatre and Dance 302S may not both be counted. Offered on the letter-grade basis only.

#### T D 102T, 202T, 302T. Topics in Dance Technique.

Fundamental study of principles and vocabulary of dance. One, two, or three lecture hours a week for one semester. May not be counted toward the Bachelor of Fine Arts degree with a major in dance. May be repeated for credit when the topics vary.

**Topic 1: Ballet I.** A study of the elements of classical ballet through exploration of movement principles as defined by traditional ballet technique. Only one of the following may be counted: Theater and Dance 302T (Topic: Ballet I), 302T (Topic: Topics in Dance: Ballet I-Nonmajors), 302T (Topic 1).

**Topic 2: Ballet II.** A continuation of the study of the elements of classical ballet through exploration of movement principles as defined by traditional ballet technique. Only one of the following may be counted: Theater and Dance 302T (Topic: Ballet II), 302T (Topic: Topics in Dance: Ballet II-Nonmajors), 302T (Topic 2).

**Topic 3: Modern I.** A study of the multiple aspects of modern dance technique including Humphrey-Limon, Release Technique, Laban Movement Analysis, and Bartenieff Fundamentals. Only one of the following may be counted: Theater and Dance 302T (Topic: Modern I), 302T (Topic: Topics in Dance: Modern-Nonmajors), 302T (Topic 3).

**Topic 4: Modern II.** A continuation of the study of the multiple aspects of modern dance technique as developed in Modern I. Theatre and Dance 102T (Topic 4), 202T (Topic 4), 302T (Topic 4) and 112T (Topic:

Modern Dance II), 212T (Topic: Modern Dance II), 312T (Topic: Modern Dance II), may not both be counted.

**Topic 5: Jazz I.** An introduction to four styles of twentieth and twenty-first century jazz dance through exploration of the fundamental principles of movement with a parallel study of the historical development of the jazz dance aesthetic. Theatre and Dance 102T (Topic: Jazz I), 202T (Topic: Jazz I), 302T (Topic: Jazz I), and 102T (Topic 5), 202T (Topic 5), 302T (Topic 5) may not both be counted.

**Topic 6: Jazz II.** A continuation of the study of jazz dance as developed in Jazz I.

**Topic 7: Afro-Contemporary Dance.** The study of contemporary dance informed by African aesthetics and vernacular movement found throughout the African diaspora. Theatre and Dance 302T (Topic: Afro-Contemporary Dance Techn) and 302T (Topic 7) may not both be counted.

**Topic 8: Improvisational Dance.** The study and practice of improvisational dance. Theatre and Dance 302T (Topic: Improvisational Dance) and 302T (Topic 8) may not both be counted.

**Topic 9: Yoga for Dance.** The study of yoga as it pertains to movement in dance. Only one of the following may be counted: Theatre and Dance 302T (Topic: Yoga for Dance), 102T, 202T, 302T (Topic 9), 352T (Topic: Yoga for Dancers), or 152T, 252T, 352T (Topic 15).

**Topic 10: Yoga: Moving into Stillness.** A study of yoga in order to develop the ability to coordinate movement and breathing in dance.

**Topic 11: Hip-Hop for Beginners.** One, two, or three lecture hours a week for one semester.

#### T D 303. Fundamentals of Acting.

Not open to theatre and dance majors. Basic principles of acting and practical work in scenes from plays. Three lecture hours a week for one semester. Theatre and Dance 303 and 313C may not both be counted.

#### T D 303C (TCCN: DRAM 2336). Training the Speaking Voice.

Restricted to non-theatre and dance majors. Exercising the fundamental principles of vocal production and speech. Three lecture hours a week for one semester.

#### T D 303V. Acting for Voice Performance Majors I.

Fundamental inquiry into the acting process. Three lecture hours a week for one semester. Prerequisite: A major in voice performance in the Butler School of Music.

#### T D 303W. Acting for Voice Performance Majors II.

Techniques for playing and shaping action within scene structures. Three lecture hours a week for one semester. Prerequisite: Theatre and Dance 303V.

#### T D 305S. Topics in Black Theatre and Dance.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary.

**Topic 2: The Revolution Will Be Dramatized.** Same as African and African Diaspora Studies 315E, American Studies 315K, and Women's and Gender Studies 301 (Topic 25). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315E, 317F (Topic: The Revolution Will Be Dramatized), American Studies 315 (Topic: The Revolution Will Be Dramatized), 315K, Theatre and Dance 305S (Topic 2), 311T (Topic: The Revolution Will Be Dramatized), Women's and Gender Studies 301 (Topic: The Revolution Will Be Dramatized), 301 (Topic 25).

**Topic 3: Toni Morrison and August Wilson.** Same as African and African Diaspora Studies 315F, American Studies 315L, and Women's and Gender Studies 301 (Topic 26). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315F, 317F (Topic: Toni Morrison and

August Wilson), American Studies 315 (Topic: Toni Morrison and August Wilson), 315L, Theatre and Dance 305S (Topic 3), 311T (Topic: Toni Morrison and August Wilson), Women's and Gender Studies 301 (Topic: Toni Morrison and August Wilson), 301 (Topic 26).

### **T D 306. Introduction to Improvisational Drama.**

General introduction to improvisational activities with application to the theatre. Three lecture hours a week for one semester.

### **T D 307K. Dance, Identity and Cultural Expression.**

Analyze dance as a significant tool for defining and articulating the many varied and intersecting facets of identity such as gender, sexuality, race, class, and nationality among others. Examine many forms of dance occurring in diverse contexts from the modern dance innovators of the 1950s, to vogue and ballroom culture of the 1980s, to representations of dance across contemporaneous media platforms like Instagram. Explore how distinct dance communities enact a multicultural and non-static notion of identity in American culture. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **T D 308K. Costume, Culture, and Change on Stage and Screen.**

Explore costuming and costume design as an agent in our social reality, both reflecting and constructing the identities which we interact with daily. Engage with a wide range of archival materials, streaming video, live performances, creative group work, and interviews with locally and internationally renowned artists. Three lecture hours a week for one semester.

### **T D 109C. Musical Theatre Performing Ensemble.**

Restricted to Department of Theatre and Dance majors. Rehearsing and performing solo and group numbers from musical theatre and other genres in cabaret-style entertainment and musical revues for on- and off-campus events. Three laboratory hours a week for one semester, with additional laboratory hours to be arranged. Theatre and Dance 109C and 113P, 213P, 313P may not both be counted. May be repeated for credit. Prerequisite: Consent of Instructor.

### **T D 109D. Studio Voice I.**

Restricted to Department of Theatre and Dance majors. Establishes foundational vocal technique for musical theatre singing. Develops successful vocal practice strategies and effective, healthy technique through the study of a comprehensive range of musical theatre styles including musical comedy, Golden Age musical drama, and concept and rock musicals. One laboratory hour a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Consent of Instructor.

### **T D 109E. Studio Voice II.**

Restricted to Department of Theatre and Dance majors. Continuation of Theatre and Dance 109D. Focus on vocal range, flexibility, and endurance. Text analysis through the study of music and lyrics, using these components as the basis of character development. One laboratory hour a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Two semesters of Theatre and Dance 109D and consent of instructor.

### **T D 309K. Musical Theatre on Stage and Screen.**

Examine the various histories explored by musical theatre. Investigate the conventions utilized by musical theatre during their development and original productions. Consider the various types of musicals, and how these musicals explore historical and cultural events and persons through this unique medium. Three lecture hours a week for one semester. Offered on the letter-grade basis only.

### **T D 311. Languages of the Stage.**

Introduction to the ways that performance communicates meaning, as a foundation for further study in theatre and dance. Three lecture hours a week for one semester. Prerequisite: A major in the Department of Theatre and Dance or consent of instructor.

### **T D 311C. Performance as Public Practice.**

Restricted to students with a major in the Department of Theatre and Dance. Examines current and historical performance policy in order to understand how the entertainment industry operates nationally. Three lecture hours and one laboratory hour a week for one semester. Theatre and Dance 311 and 311C may not both be counted.

### **T D 311D. Performance as a Collaborative Practice.**

Restricted to students with a major in the Department of Theatre and Dance. Explores and defines the creative process of performance collaboration. Three lecture hours and one laboratory hour a week for one semester. Theatre and Dance 311 and 311D may not both be counted.

### **T D 111T, 211T, 311T. Introductory Topics in Theatre and Dance.**

Introductory topics in theatre and dance, including basic research methods, contemporary and local performance, the role of the artist in society, the philosophy of a fine arts education, and the exploration of campus resources. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary.

### **T D 112, 212. Freshman Movement and Physical Conditioning.**

Restricted to Department of Theatre and Dance majors. Principles and techniques of physical conditioning. For each semester of credit hour earned, the equivalent one and one-half laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Consent of the dance faculty.

### **T D 312C. Contemporary Dance Technique.**

Intensive study of principles, technique, and vocabulary of contemporary dance. Six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

### **T D 312D. Intermediate Contemporary Dance Technique.**

Intensive study of intermediate-level theory, technique, and vocabulary of contemporary dance. Six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

### **T D 312F. Ballet Technique.**

Intensive study of principles, technique, and vocabulary of ballet. Six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

### **T D 312G. Intermediate Ballet Technique.**

Study of intermediate-level theory, technique, and vocabulary of ballet as a supporting style. Six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

### **T D 312M. Movement Improvisation.**

Exploration and study of elements of movement design. Three hours a week for one semester, with additional laboratory hours as required. May

be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance.

### **T D 312N. Movement Composition.**

Continuation of Theatre and Dance 312M. Three hours a week for one semester, with additional laboratory hours as required. Prerequisite: Theatre and Dance 312M or consent of instructor.

### **T D 112P, 212P, 312P. Fundamental Projects in Dance Performance and Repertory.**

Preparation and performance laboratory related to production. At least six laboratory hours a week for one semester; additional laboratory hours may be required for rehearsals and performances. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

### **T D 112T, 212T, 312T. Topics in Dance Technique.**

Restricted to majors in the Department of Theatre and Dance. For each semester hour of credit earned, at least one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of the dance faculty.

#### **Topic 1: Somatic Practice.**

### **T D 313C (TCCN: DRAM 1351). Acting I.**

Restricted to Department of Theatre and Dance majors. Approaches to incorporating Stanislavski-based principles in acting, including dramatic action, given circumstances, subtext, sense memory, the magic if, and tempo/rhythm. Three lecture hours a week for one semester, with additional hours to be arranged.

### **T D 313D (TCCN: DRAM 1352). Acting II.**

Restricted to Department of Theatre and Dance majors. Continuation of Acting I. Application of Stanislavski-based principles to scene work selected from realistic genres. Three lecture hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313C.

### **T D 313E (TCCN: DRAM 2351). Acting III.**

Restricted to Department of Theatre and Dance majors. Continuation of Acting II, with greater emphasis on personalization of character needs, given circumstances, actor-to-actor communication, and emotional life. Three lecture hours a week for one semester, with additional hours to be arranged. Theatre and Dance 313E and 324E may not both be counted. Prerequisite: Theatre and Dance 313D.

### **T D 313F. Voice and Movement I.**

Understanding the relationship between voice and body in acting, with a focus on freeing tension, releasing vocal power, and enabling physical expression. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: A major in acting or consent of instructor.

### **T D 313G. Voice and Movement II.**

Continuation of Voice and Movement I. Deeper understanding of the vocal-physical connection as a means of playing dramatic action. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313F.

### **T D 313K. Voice Laboratory I.**

Advanced voice and speech work in breath, support, placement, focus, range, resonance, articulation and endurance. Emphasis placed on personalization of language and text from selected plays. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313G or consent of instructor.

### **T D 313L. Voice Laboratory II.**

Continuation of Voice Laboratory I. Advanced voice and speech work connected to personalization and truth in classical and heightened text. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313K.

### **T D 313M. Movement Laboratory I.**

Using the body as an instrument for playing action and bringing the actor to a deeper understanding of physical stage presence. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313G or consent of instructor.

### **T D 313N. Movement Laboratory II.**

Continuation of Movement Laboratory I. The practice of physical theatre disciplines as a means of deepening the actor's understanding of character and behavior. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Theatre and Dance 313M.

### **T D 113P, 213P, 313P. Projects in Acting and Directing.**

Preparation and performance laboratory related to production. For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Consent of the acting/directing faculty.

### **T D 314C (TCCN: DRAM 1330). Design for Performance.**

Introduction to the techniques, practices, and processes in costume, lighting, scenic, and sound design. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: A major in the Department of Theatre and Dance.

### **T D 314M (TCCN: DRAM 2331). Technical Theatre.**

Restricted to majors in the Department of Theatre and Dance. Introduction to the technical aspects of theatrical performance—in costumes, lighting, scenery, and media. Three lecture hours a week for one semester.

### **T D 314P. Production Laboratory.**

Restricted to College of Fine Arts majors. Three hours a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance; and Theatre and Dance 314M, except for dance majors in the BFA degree program.

### **T D 314Q. Production Shop.**

Restricted to theatre studies majors. Assist in the creation of props, lighting, costumes, projection, audio, or scenery for department productions. Nine laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Prerequisite: A major in the Bachelor of Fine Arts in Theatre Studies.

### **T D 315. Playwriting I.**

Same as Creative Writing 315D. The study and practice of writing plays. Three lecture hours a week for one semester. Creative Writing 315D and Theater and Dance 315 may not both be counted.

### **T D 315C. Foundations of Narrative Design.**

Three lecture hours a week for one semester. May be repeated for credit.

### **T D 316D. Directing I.**

Restricted to students with a major in the Department of Theatre and Dance. Study and practice of the fundamentals of stage directing: composition, dramatic action, movement, and textual analysis. Three lecture hours a week for one semester with additional laboratory hours

as required. Theatre and Dance 316D and 323C may not both be counted. Prerequisite: Sophomore standing or Theatre and Dance 313C.

**T D 317C (TCCN: DRAM 2361). Theatre History through the Eighteenth Century.**

Three lecture hours a week for one semester. Prerequisite: For theatre and dance majors, Theatre and Dance 311 or 311C; for others, none.

**T D 317D (TCCN: DRAM 2362). Theatre History since the Eighteenth Century.**

Three lecture hours a week for one semester. Prerequisite: For theatre and dance majors, Theatre and Dance 311 or 311C; for others, none.

**T D 317M. Dance History I.**

An exploration of world dance as an expression of cultural identity and change. Three lecture hours a week for one semester. Prerequisite: Theatre and Dance 311 or 311C.

**T D 317N. Dance History II.**

Continuation of Theatre and Dance 317M. Three lecture hours a week for one semester. Prerequisite: Theatre and Dance 317M.

**T D 119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, 919Q. Topics in Theatre and Dance.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Theatre and Dance. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## Upper-Division Courses

**T D 320J. Introduction to Creating New Media.**

Introduces student actors to strategies to grow as generative artists and master the basics of a few common media production tools to give their creative voice a broader reach in the world. Three lecture hours a week for one semester, with additional hours to be arranged. Only one of the following may be counted: Theatre and Dance 320J, 353T (Topic: Intro to Creating New Media), or 353T (Topic 11). Offered on the letter-grade basis only. Prerequisite: Upper-division standing, and Theatre and Dance 313E with a grade of at least B-; or consent of the acting/directing faculty.

**T D 121P, 221P, 321P. Festival Project and Production.**

Students initiate, develop, and/or participate in an approved departmental major festival project or production under the supervision of a faculty member. For each semester hour of credit earned, at least one lecture hour a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Consent of instructor.

**T D 322. Dance Pedagogy.**

Techniques and materials used in the teaching of dance. Two lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Upper-division standing and consent of instructor.

**T D 322C. Contemporary Dance Technique.**

Intensive study of principles, technique, and vocabulary of contemporary dance. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Fine Arts degree with a major in dance. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

**T D 322D. Intermediate Contemporary Dance Technique.**

Intensive study of intermediate-level theory, technique, and vocabulary of contemporary dance. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Fine Arts degree with a major in dance. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

**T D 322E. Advanced Contemporary Dance Technique.**

Intensive study of advanced theory, technique, and style of contemporary dance. Six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

**T D 322F. Ballet Technique.**

Intensive study of principles, technique, and vocabulary of ballet. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Fine Arts degree with a major in dance. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

**T D 322G. Intermediate Ballet Technique.**

Study of intermediate-level theory, technique, and vocabulary of ballet as a supporting style. Six laboratory hours a week for one semester. May not be counted toward the Bachelor of Fine Arts degree with a major in dance. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

**T D 322J. Advanced Ballet Technique.**

Study of advanced theory, technique, and vocabulary of ballet as a supporting style. Six laboratory hours a week for one semester. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

**T D 122P, 222P, 322P. Projects in Dance Performance and Repertory.**

Preparation and performance laboratory related to production. At least six laboratory hours a week for one semester; additional laboratory hours may be required for rehearsals and performances. May be repeated for credit. Prerequisite: A major in the Department of Theatre and Dance and consent of the dance faculty.

**T D 323C. Directing I.**

Study and practice of the fundamentals of stage directing: composition, picturization, movement, gesture, and unit structure. Three lecture hours a week for one semester, with laboratory hours as required. Theatre and Dance 316D and 323C may not both be counted. Prerequisite: Upper-division standing and a major in the Department of Theatre and Dance.

**T D 323D. Directing II.**

Dramatic and environmental analysis of full-length plays. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: Theatre and Dance 316D or 323C.

**T D 323E. Directing III.**

Theory and techniques of play directing, with practical applications in projects and scenes. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: Upper-division standing, Theatre and Dance 323D, and consent of instructor.

**T D 323F. Acting Shakespeare.**

Restricted to bachelor of fine arts in acting majors. Incorporating language as action by applying basic acting principles to the demand of Shakespearean text. Three laboratory hours a week for one semester, with additional hours to be arranged. Only one of the following may be counted: Theatre and Dance 323F, 353T (Topic: Acting Shakespeare),

or 353T (Topic 1). Prerequisite: Theatre and Dance 313E or consent of instructor.

### **T D 323G. Acting in Period Plays.**

Exploration of classical and idiosyncratic texts to enable personal and artistic growth in actors. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Upper-division standing, and Theatre and Dance 323F or consent of instructor.

### **T D 123P, 223P, 323P. Advanced Projects in Acting and Directing.**

For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing and consent of the acting/directing faculty.

### **T D 324. Design and Technology for Performance.**

Exploration of aspects of design and technology in performance, including costume, lighting, scenery, and sound. Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit. Prerequisite: Theatre and Dance 314C, 314M, and consent of instructor.

### **T D 324E. Acting III.**

Restricted to theatre and dance majors. Continuation of Acting II, with greater emphasis on personalization of character needs, given circumstances, actor-to-actor communication, and emotional life. Three lecture hours a week for one semester, with additional hours to be arranged. Theatre and Dance 313E and 324E may not both be counted. Offered on the letter-grade basis only. Prerequisite: Upper-division standing, and Theatre and Dance 313D.

### **T D 124P, 224P, 324P. Advanced Production Laboratory.**

Same as Arts and Entertainment Technologies 124P. Same as Arts and Entertainment Technologies 224P. Same as Arts and Entertainment Technologies 324P. Restricted to theatre and dance and arts and entertainment technologies majors. For each semester hour of credit earned, one lecture hour a week for one semester, with additional laboratory hours to be arranged. Theatre and Dance 124P, 224P, 324P and Arts and Entertainment Technologies 124P, 224P, 324P may not both be counted. May be repeated for credit. Prerequisite: For Theatre and Dance majors, Theatre and Dance 314P or consent of instructor; For Arts and Entertainment Technologies majors, Arts and Entertainment Technologies 316C.

### **T D 325. Playwriting II.**

Same as Creative Writing 340D. Emphasis on the form and writing of the full-length play or equivalent. Three lecture hours a week for one semester. Creative Writing 340D and Theatre and Dance 325 may not both be counted. Prerequisite: Upper-division standing, Creative Writing 315D or Theatre and Dance 315, and consent of instructor.

### **T D 125P, 225P, 325P. Projects in Playwriting.**

For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **T D 326. Dramatic Activities for the Classroom.**

Theory, materials, and practice, including story dramatization, storytelling, puppets, pantomime, shadow plays, role-playing, and theatre games. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: Upper-division standing.

### **T D 326C. Theatre Studies: Creative Drama.**

Theory and practice of creative drama for children, both as an art form and as a process for emphasizing creative expression and aesthetic growth. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: Upper-division standing and consent of instructor.

### **T D 326D. Theatre Studies: Theatre for Young Audiences.**

Theory and practice of all phases of play production for young audiences. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: Upper-division standing.

### **T D 326E, 626E. Theatre Studies: Directing the Young Performer.**

Introduction to the theory and practice of directing and producing theatre with young performers, with emphasis on appropriate literature. Three lecture hours a week for one semester, with additional laboratory hours as required; this course includes field-based instruction in area high schools. Prerequisite: Upper-division standing, Theatre and Dance 323D, and consent of instructor.

### **T D 326F. Creative Drama II.**

Advanced investigation of drama and drama-based instructional strategies. Observation, teaching and/or co-teaching in one or more practical contexts during the semester as a way to hone skills needed to successfully plan, implement, and evaluate drama-based lessons. Three lecture hours a week for one semester. Only one of the following may be counted: Theatre and Dance 326F, 351T (Topic: Creative Drama II), 151T (Topic 1), 251T (Topic 1), 351T (Topic 1). Offered on the letter-grade basis only. Prerequisite: Upper-division standing, Theatre and Dance 326C, and consent of instructor.

### **T D 126P, 226P, 326P. Projects in Theatre Studies.**

For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **T D 326Q. Directing Project in Theatre Studies.**

Producing and directing a play in an elementary or secondary school. The equivalent of three hours a week for one semester, with additional laboratory hours as required. Prerequisite: Upper-division standing and Theatre and Dance 326E, 626E.

### **T D 127P, 227P, 327P. Projects in History, Criticism, and Performance Studies.**

For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **T D 329C. Musical Theatre Performance Workshop.**

Restricted to Department of Theatre and Dance majors. Private coaching, master classes, and small and large group rehearsals, culminating in staged public performances of musical revues and/or chamber musicals. Three laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **T D 129D. Studio Voice III.**

Restricted to Department of Theatre and Dance majors. Continuation of Theatre and Dance 109E. Emphasizes the synthesis of singing and acting skills. One laboratory hour a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit.

Prerequisite: Upper-division standing, two semesters of Theatre and Dance 109E, and consent of instructor.

#### **T D 129E. Studio Voice IV.**

Restricted to Department of Theatre and Dance majors. Continuation of Theatre and Dance 129D. Refines, expands, and strengthens the specialized performance skills required of a musical theatre performer, including studio recording techniques. One laboratory hour a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing and two semesters of Theatre and Dance 109D.

#### **T D 129Q, 229Q, 329Q, 429Q, 529Q, 629Q, 729Q, 829Q, 929Q. Topics in Theatre and Dance.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Theatre and Dance. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **T D 332M. Choreography.**

Advanced study of the principles and practices of choreography. Three hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing, Theatre and Dance 312N, and consent of instructor.

#### **T D 332N. Choreography: Design for Dance and Movement Theatre.**

Continuation of Theatre and Dance 332M. Three hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Prerequisite: Theatre and Dance 332M.

#### **T D 232P, 332P. Advanced Projects in Dance Performance and Repertory I.**

For 232P, at least six laboratory hours a week for one semester, with additional hours as required; for 332P, at least seven laboratory hours a week for one semester, with additional hours as required. May be repeated for credit. Prerequisite: Upper-division standing, Theatre and Dance 222P, a major in the Department of Theatre and Dance, and consent of the dance faculty.

#### **T D 232Q, 332Q. Advanced Projects in Dance Performance and Repertory II.**

For 232Q, at least six laboratory hours a week for one semester, with additional laboratory hours as required; for 332Q, at least seven laboratory hours a week for one semester, with additional hours as required. May be repeated for credit. Prerequisite: Upper-division standing, Theatre and Dance 232P or 332P, a major in the Department of Theatre and Dance, and consent of the dance faculty.

#### **T D 332R. Dance Pedagogy.**

Principles, techniques, and materials used in the teaching of dance. Three lecture hours a week for one semester; with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing, a major in the Department of Theatre and Dance, and consent of the dance faculty instructor.

#### **T D 332S. Dance Pedagogy Practicum.**

Practical application techniques and materials used in the teaching of dance. Three laboratory hours a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite:

Upper-division standing, Theatre and Dance 332R, a major in the Department of Theatre and Dance, and consent of the dance faculty.

#### **T D 340D. Advanced Techniques in Acting.**

Restricted to juniors pursuing a Bachelor of Fine Arts in Theatre and Dance. Explore advanced work with text and personal connection to character. The equivalent of three lecture hours, with additional hours to be arranged. Prerequisite: Upper-division standing and Theatre and Dance 313E.

#### **T D 350J. Topics in Performance Lab.**

Subjects in acting including voice/speech, movement, character, composition and collaboration with directors. Three lecture hours a week for one semester, with additional lab hours to be arranged as needed. May be repeated for credit when the topics vary.

**Topic 1: Spectacle.**

**Topic 2: Classics.**

**Topic 3: Contemporary Plays.**

**Topic 4: Composition.**

**Topic 5: Actors.** Offers students experience and training in performance techniques and methods for working collaboratively with directors in rehearsal.

**Topic 6: Language.** Offers students experience and training in performance techniques and methods for working collaboratively with directors in rehearsal.

#### **T D 351F. Teaching Artists in Schools and Community Settings.**

Explores how to use the arts to educate in arts and non-arts settings (professional arts organizations, after-school programs, schools, museums, and community sites). Engagement with a variety of local arts organizations that hire and train teaching artists including dancers, visual artists, and theatre professionals through service learning projects. Includes outside service learning projects with local community organizations or schools. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and consent of instructor.

#### **T D 351S. Seminar in Theatre and Dance.**

Three lecture hours a week for one semester. Prerequisite: Completion of at least ninety semester hours of coursework, a major in the Department of Theatre and Dance, and consent of instructor.

#### **T D 151T, 251T, 351T. Topics in Theatre and Dance.**

For each semester hour of credit earned, the equivalent of one class hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

**Topic 2: Digital Storytelling with Youth and Communities.** Explores digital storytelling and applied theatre as tools for reflecting on self, building community, and fostering cultural engagement.

Engagement in creative writing and devising through drama and digital technologies; collaborative development and documentation of digital stories and performance collages. Extra lab hours may be required for digital documenting and editing. Theater and Dance 351T (Topic: Digital Storytelling) and 151T, 251T, 351T (Topic 2) may not both be counted.

**Topic 3: Drama and Theatre in Museums.** Explores the history and multiple contexts of drama/theatre applications in museum settings in the U.S. and international sites.

**Topic 4: Immersive Theatre Lab Practice and Production.** Theater and Dance 351T (Topic: Immersive Theatre Lab Prac/Prod) and 151T, 251T, 351T (Topic 4) may not both be counted.

**Topic 5: Devised Theatre Lab.** Theater and Dance 351T (Topic: Devised Theatre Lab) and 151T, 251T, 351T (Topic 5) may not both be counted.

### **T D 352. Experiential Anatomy.**

Restricted to Department of Theatre and Dance majors. Principles and techniques of physical conditioning with practical applications to injury prevention for dance and theatre practitioners. Three laboratory hours a week for one semester, with additional hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing, Theatre and Dance 232P (or 332P), and consent of the dance faculty.

### **T D 152P, 252P, 352P. Projects in Dance Movement Studies.**

For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **T D 152T, 252T, 352T. Topics in Dance and Movement.**

Fundamental study of principles and vocabulary of dance. For each semester hour of credit earned, at least one hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

**Topic 1: Musical Theatre Dance I.** Explores original repertoire from a wide variety of musical theatre styles. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged. Theatre and Dance 152T, 252T, 352T (Topic: Dance for Musical Theatre) and 152T, 252T, 352T (Topic 1) may not both be counted. Prerequisite: Upper-division standing.

**Topic 2: Musical Theatre Dance II.** Explores original musical theatre choreography from a variety of styles. Repertoire will require a higher level of skills. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged. Theatre and Dance 152T, 252T, 352T (Topic: Dance for Musical Theatre II) and 152T, 252T, 352T (Topic 2) may not both be counted. Prerequisite: Upper-division standing, and Theatre and Dance 352T (Topic 1).

**Topic 3: Broadway Jazz I.** Refines and expands dance technique and skills essential to Broadway-style choreography. Original Broadway choreography requiring a high level of technique and character development. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged. Theatre and Dance 152T, 252T, 352T (Topic: Broadway Jazz I) and 152T, 252T, 352T (Topic 3) may not both be counted. Prerequisite: Upper-division standing, and Theatre and Dance 152T, 252T, 352T (Topic 2).

**Topic 4: Broadway Jazz II.** Continues to refine and expand dance technique and skills essential to Broadway style choreography. Original Broadway choreography requiring a high level of technique and character development. For each semester hour of credit earned, one lecture hour a week for one semester, with additional hours to be arranged. Theatre and Dance 152T, 252T, 352T (Topic: Broadway Jazz II) and 152T, 252T, 352T (Topic 4) may not both be counted. Prerequisite: Upper-division standing, and Theatre and Dance 352T (Topic 3).

**Topic 5: Pointe.** A study and practice of classical and contemporary ballet pointe technique. Distinguishes between and practice various 'schools' of pointe technique, study its anatomical principles, and learn repertoire ranging from the nineteenth century to the current day. Increasingly complex combinations of movements, positions, and rhythms will be applied toward developing physical skills, cognitive skills, and performance quality. Individual expression and artistry is encouraged. Theatre and Dance 152T (Topic: Pointe) and 152T, 252T, 352T (Topic 5) may not both be counted.

**Topic 6: Tap.**

**Topic 7: Advanced Pilates: Evolved Lab.** Utilizes Pilates-evolved techniques, equipment, and readings to investigate a daily mind/body practice of efficient alignment, core strengthening, movement re-education and execution to enhance movement expressivity in performance. Theatre and Dance 352T (Topic: Advanced Pilates: Evolved Lab) and 152T, 252T, 352T (Topic 7) may not both be counted.

**Topic 8: Gyrokinesis.** Theatre and Dance 302T (Topic: Intro to Gyrokinesis) and 152T, 252T, 352T (Topic 8) may not both be counted.

**Topic 9: Beginning Hip-Hop.** Introduction to the foundation of street dance styles, specifically old school Hip Hop. Exploration of the teachings of Philadelphia-born street dance pioneer, Rennie Harris, and his codification terminology and stylized movement vocabulary. Study of these dances and understand their cultural origins through an exploration of movement principles, history, and philosophy of street dance. Foundational House dance technique may also be introduced.

**Topic 10: Intermediate/Advanced Hip-Hop.** Continued introduction to the foundation of street dance styles, specifically old school Hip Hop and House dance techniques. Exploration of these dance styles and their cultural origins through an investigation of movement principles, history, and philosophy of street dance. Theatre and Dance 302T (Topic: Hip-Hop) and 152T (Topic 10) may not both be counted.

**Topic 11: Hip-Hop History.** Introduction to Hip-Hop dance as a culturally significant form. Explores history, the social and political forces at work, and the fundamental techniques (Campbell Locking, Popping, Breaking etiquette/movements, Hip-Hop Party Dance and House). Intellectual challenge is offered through the lens of critical race theory and historical context. Addresses the origin and evolution of American Hip-Hop dance rooted in a theoretical structure that springs from the elemental nature of the African Diaspora. Emphasis on the social, political, and economic environment in which it was fashioned. Theatre and Dance 352T (Topic: Hip Hop History) and 152T (Topic 11) may not both be counted.

**Topic 12: Kinetic Storytelling.** Making use of tools found in Africanist performance traditions to explore issues and experiment with ways to craft a movement-based performance that expresses a specific point of view and draws out questions about our chosen issue or effort. Theatre and Dance 352T (Topic: Kinetic Storytelling) and 152T (Topic 12) may not both be counted.

**Topic 13: Advanced Tap.** Only one of the following may be counted: Theatre and Dance 302T (Topic: Advanced Tap), 352T (Topic: Advanced Tap), or 152T, 252T, 352T (Topic 13).

**Topic 14: Theory and Practice Pilates-Evolved Lab.** Explore daily mind/body practice of efficient alignment, core strengthening, movement re-education and execution using Pilates-evolved techniques, equipment, and readings to enhance movement expressivity in performance. Theatre and Dance 352T (Topic: Thry/Prac Pilates-Evolved Lab) and 152T (Topic 14) may not both be counted.

**Topic 15: Yoga.** Only one of the following may be counted: Theatre and Dance 302T (Topic: Yoga for Dance), 102T, 202T, 302T (Topic 9), 352T (Topic: Yoga for Dancers), or 152T, 252T, 352T (Topic 15).

### **T D 353C. Devised Work.**

A survey of contemporary devising techniques. Work explores present-day parallels for making performance for both individual and collaborative practices. The equivalent of three lecture hours, with additional hours to be arranged. Prerequisite: Upper-division standing

### **T D 353D. Acting and the Camera I.**

Fundamentals of acting for the camera; adjusting from the stage to the demands of the camera. Six laboratory hours a week for one semester. Theatre and Dance 351T (Topic: Acting for the Camera) and 353D may not both be counted. Prerequisite: For Bachelor of Fine Arts in Acting majors, upper-division standing and Theatre and Dance 353C; for others,

upper-division standing, and Theatre and Dance 313E with a grade of at least B- or consent of instructor.

### **T D 353E. Acting and the Camera II.**

Advanced technique for the camera. Professional audition protocols and career preparation. Six laboratory hours a week for one semester. Theatre and Dance 351T (Topic: Acting for the Camera II) and 353E may not both be counted. Prerequisite: Upper-division standing and Theatre and Dance 353D.

### **T D 353G. Application for Rehearsal.**

Restricted to majors in the Department of Theatre and Dance. Three lecture hours a week for one semester. Theatre and Dance 353G and 353T (Topic: Application/Rehearsal-L A) may not both be counted. Prerequisite: Upper-division standing.

### **T D 353K. Voice-Over and Narration.**

Microphone technique and the use of the voice to create character in various media applications such as narration, video games, and commercial copy. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Upper-division standing; and Theatre and Dance 313L and 323F, or consent of instructor.

### **T D 353Q. Portfolio Preparation.**

Restricted to Bachelor of Fine Arts in Acting majors. Selection and rehearsal of materials in preparation for professional acting interviews and auditions. Three laboratory hours a week for one semester, with additional hours to be arranged. Prerequisite: Upper-division standing.

### **T D 353R. Business of Acting.**

Restricted to majors in the Department of Theatre and Dance. Survey of marketing oneself as an actor, the actor's relationship to agents and casting directors, and methods for initiating and maintaining a professional acting career. Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

### **T D 353T. Topics in Acting and Directing.**

Restricted to majors in the Department of Theatre and Dance. Topics in acting including voice/speech, movement, and directing. Three lecture hours a week for one semester, with additional hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and Theatre and Dance 313E with a grade of at least B- or consent of the acting/directing faculty.

**Topic 1: Acting Shakespeare.** Incorporating language as action by applying basic acting principles to the demand of Shakespearean text. Only one of the following may be counted: Theatre and Dance 323F, 353T (Topic: Acting Shakespeare), or 353T (Topic 1).

**Topic 2: Comedy Acting.** Focus on issues of acting in comedy. Address the problems that confront the actor when rehearsing and performing in extant comedy play scripts. Uses improvisational, non-theatrical, and original material for developing comedy skills. Participation as an actor is mandatory. Only one of the following may be counted: Theatre and Dance 351T (Topic: Comedy Acting), 353T (Topic: Comedy Acting), or 353T (Topic 2).

**Topic 3: Dialects for the Stage.** Emphasizes dialect skills and good vocal production for actors pursuing professional work. Emphasis is placed on independent dialect study projects. Theatre and Dance 353T (Topic: Dialects for the Stage) and 353T (Topic 3) may not both be counted.

**Topic 4: Advanced Singing in Musical Theatre.** Explore the significance of music, composers, shows, and singers as they relate to the use of voice. Additional prerequisite: Some facility with voice and a background in musical or choral theatre is recommended.

**Topic 5: Stage Combat for the Actor.** Introduction to theatrical fighting and violence. Explores the techniques used to create the illusion of stage fighting and violence both with and without weapons. Focus on the practical application of violence to tell stories on the stage and/or screen. An opportunity to have work observed in front of a Fight Master of the Society of American Fight Directors. Theatre and Dance 353T (Topic: Stage Combat for the Actor) and 353T (Topic 5) may not both be counted.

**Topic 6: Audition Techniques.** Developing skills for bringing your personal self to acting and to the audition. Theatre and Dance 353T (Topic: Audition Techniques) and 353T (Topic 6) may not both be counted.

**Topic 11: Introduction to Creating New Media For Actors.** Introduces student actors to strategies to grow as generative artists and master the basics of a few common media production tools to give their creative voice a broader reach in the world. Only one of the following may be counted: Theatre and Dance 320J, 353T (Topic: Intro to Creating New Media), or 353T (Topic 11).

### **T D 354F. Foundations of Acting.**

Restricted to majors in the Department of Theatre and Dance. Three lecture hours a week for one semester. Theatre and Dance 353T (Topic: Foundations of Acting-L A) and 354F may not both be counted. Prerequisite: Upper-division standing.

### **T D 154P, 254P, 354P. Projects in Design and Technology.**

Individual projects in theatre design and technology. For each semester hour of credit earned, at least one hour a week for one semester and additional laboratory hours as required. May be repeated for credit. Prerequisite: Consent of instructor.

### **T D 354T. Topics in Design and Technology.**

Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

**Topic 2: Fabric Painting and Dyeing.** Fundamentals of textile surface design.

**Topic 3: Mask Making.** Fundamentals of mask theory, design, and construction for theatre and live performance.

**Topic 4: Millinery.** Fundamentals of hat design, fitting, and construction techniques. Theatre and Dance 354T (Topic: Millinery) and 354T (Topic 4) may not both be counted.

**Topic 5: Scenery Technology I.**

**Topic 6: Costume Rendering.** Fundamentals of costume research and drawing.

**Topic 7: Drawing for Theatre Designers.**

**Topic 8: Painting.**

**Topic 9: Automated Lighting I.** Fundamentals of automated and computer-aided lighting for theatre and live performance.

**Topic 10: Costume Design Skills.** Fundamentals of research, drawing, rendering, and script/character analysis and critique for costume design. Theatre and Dance T D 354T (Topic: Design Skills: Costume) and 354T (Topic 10) may not both be counted.

**Topic 11: Lighting Design Skills.** Fundamentals of research, paperwork communication, and technology for lighting designers. Arts and Entertainment Technologies 329E and Theatre and Dance 354T (Topic 11) may not both be counted.

**Topic 12: Scenery Design Skills.** Fundamentals of designing, drafting, and model building of scenery for theatrical and film designers.

**Topic 13: Stage Makeup.** Tools and products used by professional makeup artists. Includes techniques for natural, character, and special effects makeup in theatre, opera, dance, film, and TV.

**Topic 14: Figure and Fabric Rendering.** Principles of figure and fabric painting from life.

**Topic 15: Scene Painting.** Scene painting techniques for theatrical designers.

**Topic 16: Automated Lighting II.** Advanced automated and computer-aided lighting theory and techniques.

**Topic 17: Game Development Capstone: Two-Dimensional Games.** Same as Computer Science 354S and Music 354S. Participation in an interdisciplinary team to gain a thorough understanding of the two-dimensional game development process, through modeling of the environment and practices that are used in game studios. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 354S, 378 (Topic: Game Development Capstone: 2D Games), Music 354S, 376J (Topic: Game Development Capstone: 2D Games), Theatre and Dance 354T (Topic 17). Additional prerequisite: For computer science majors, Computer Science 354 with a grade of at least C-; for others, consent of instructor.

**Topic 18: Game Development Capstone: Three-Dimensional Games.** Same as Computer Science 354T and Music 354T. Participation in interdisciplinary teams to gain a thorough understanding of the three-dimensional game development process, through modeling of the environment and practices that are used in game studios. Three lecture hours a week for one semester. Only one of the following may be counted: Computer Science 354T, Music 354T, 376J (Topic: Game Development Capstone: 3D Games), Theatre and Dance 354T (Topic 18). Additional prerequisite: For computer science majors, Computer Science 354R with a grade of at least C- or consent of instructor; for others, consent of instructor.

**Topic 19: Sound Design I.** Introduction to sound design for live performance. Theatre and Dance 354T (Topic: Sound Design I) and 354T (Topic 19) may not both be counted.

**Topic 20: Sound Design II.** Advanced instruction in sound design for live performance. Theatre and Dance 354T (Topic: Sound Design II) and 354T (Topic 20) may not both be counted. Additional prerequisite: Theatre and Dance 354T (Topic 19).

**Topic 21: Classical Tutu Design and Construction.** Fundamentals of classical tutu construction, including draping, pattern making, fitting techniques on a live model.

**Topic 22: Puppet Design and Construction.** Theory and technique of puppet creation and performance. May include marionettes, hand and rod, and body puppets.

**Topic 23: Armour and Fabrication.** Exploring the uses of leather as a medium for armour making. Shaping, tooling, coloring application for uses in theatre and film. Theatre and Dance 354T (Topic: Armour Design and Fabrication) and 354T (Topic 23) may not both be counted.

**Topic 24: Design Skills: Scenic Renderings.** Fundamentals of drawing and color for renderings of scenery for theatre and film. Theatre and Dance 354T (Topic: Scenic Rendering) and 354T (Topic 24) may not both be counted.

**Topic 25: Portfolio for Designers.** Fundamentals of self-marketing for theatre artists. Theatre and Dance 354T (Topic: Portfolio for Designers) and 354T (Topic 25) may not both be counted.

**Topic 26: Media Creation for Live Performance.** Introduction to the particulars of producing and integrating media into live performance environments. Only one of the following may be counted: Arts and Entertainment Technologies 329, 329C, Theatre and Dance 354T (Topic: Media Creation for Live Perf), 354T (Topic 26).

**Topic 27: Festival and Event Management.** Fundamentals of the stage management process for large public events. Theatre and Dance 354T (Topic: Festival/Event Management) and 354T (Topic 27) may not both be counted.

**Topic 28: Tailoring I.** Fundamental theory and techniques in tailoring for the live performer. Theatre and Dance 354T (Topic: Tailoring I) and 354T (Topic 28) may not both be counted.

**Topic 29: Tailoring II.** Advanced theory and techniques in tailoring for the live performer. Theatre and Dance 354T (Topic: Tailoring II) and

354T (Topic 29) may not both be counted. Additional prerequisite: Theatre and Dance 354T (Topic 28).

**Topic 30: Wig Making and Styling.** Fundamentals of building and styling wigs for use in the theatre. Only one of the following may be counted: Theatre and Dance 354T (Topic: Wig Making and Styling), 354T (Topic 30) and 388L (Topic: Wig Making and Styling).

**Topic 31: Scenic Design.** Introduction to the conceptualization and design of scenery for the theatre.

**Topic 32: Stage Craft.** Fundamentals of scenery construction and assembly. Theatre and Dance 354T (Topic: Stage Craft) and 354T (Topic 32) may not both be counted.

**Topic 33: Projection Design.** Introduction to the field of projection design in live performance. Theatre and Dance 354T (Topic: Projection Design) and 354T (Topic 33) may not both be counted.

**Topic 34: Entertainment Systems Design.** Explores interconnectedness between lighting, projection, and media that is commonly found in live entertainment environments.

**Topic 36: Stage Management.** Fundamentals of the stage management process for theatrical production. Theatre and Dance 354T (Topic: Stage Management) and 354T (Topic 36) may not both be counted.

**Topic 37: Advanced Stage Management.** Advanced instruction in stage management for theatrical production. Theatre and Dance 354T (Topic: Advanced Stage Management) and 354T (Topic 37) may not both be counted.

### T D 355. Playwriting III.

Same as Creative Writing 355D. Focus on experiments in revising dramatic text in order to create a common vocabulary around narrative structure. Revision often includes the creation of multiple new drafts, digging through past drafts for abandoned themes, lost focus, and new inspiration as well as exploring character, narrative, and/or language. Three lecture hours a week for one semester, with laboratory hours as required. Only one of the following may be counted: Creative Writing 355D, Theatre and Dance 355T (Topic: Playwriting III), 355. Prerequisite: Upper-division standing, Creative Writing 340D or Theatre and Dance 325, and consent of instructor.

### T D 355T. Topics in Playwriting.

Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

### T D 356T. Topics in Theatre Studies.

Topics in theatre studies, including creative drama, theatre for children and youth, and theatre with young adults. Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

#### Topic 1: Puppetry.

**Topic 2: Latino Theatre for Young Audiences.** Theatre and Dance 356T (Topic: Latino Thtr for Young Audience) and 356T (Topic 2) may not both be counted.

**Topic 3: Creative Drama in the Museum.** The application of creative drama methods in museum settings. Theatre and Dance 356T (Topic: Creative Drama in the Museum) and 356T (Topic 3) may not both be counted.

### T D 357D. Dramaturgy.

Restricted to theatre and dance majors. Three lecture hours a week for one semester. Theatre and Dance 351T (Topic: Dramaturgy) and 357D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Sophomore standing.

## **T D 357T. Topics in History, Criticism, and Performance Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

**Topic 1: Latin American Theatre and Drama.** Same as Latin American Studies 322 (Topic 13: Latin American Theatre and Drama).

**Topic 2: Gender And Sexuality in Performance.** Same as Women's and Gender Studies 345 (Topic 56). Consider what physical performance and dance tell us about gender, sexuality and the body. Previous knowledge of performance or gender studies is not required. Only one of the following may be counted: Theater and Dance 357T (Topic: Gender And Sexuality in Performance), 357T (Topic 2), Women's and Gender Studies 345 (Topic: Gender And Sexuality in Performance), 345 (Topic 56). Additional prerequisite: Upper-division standing and consent of instructor.

**Topic 3: Theatre for Dialogue.**

**Topic 4: Confronting LGBTQ Oppression.** Theatre and Dance 357T (Topic: Confronting LGBTQ Oppression) and 357T Topic 4 may not both be counted.

**Topic 5: Writing for Black Performance.** Same as African and African Diaspora Studies 330F, American Studies 321Q, and Creative Writing 325T. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330F, 372E (Topic: Writing for Black Performance), American Studies 321 (Topic: Writing for Black Performance), 321Q, Creative Writing 325T, English 376M (Topic: Writing for Black Performance), Theatre and Dance 357T (Topic: Writing for Black Performance), 357T (Topic 5). Additional prerequisite: Upper-division standing.

**Topic 7: African Religious Culture and Creativity.** Same as African and African Diaspora Studies 340T and Religious Studies 360C. Examine religion as an aesthetic practice and explore the inventiveness of the imagination that underlines African religious practices. Study religious practices spanning from the pre-colonial and post-colonial eras to the contemporary period particularly in urban centers. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340T, 372G (Topic: Afr Relig Cultur/Creativity), Religious Studies 360 (Topic: Afr Relig Cultur/Creativity), 360C, Theatre and Dance 357T (Topic: Afr Relig Cultur/Creativity), 357T (Topic 7). Additional prerequisite: For theatre and dance majors, consent of instructor; for all others, upper-division standing.

**Topic 9: Greek Tragedies and Postcolonial Dramas.** Same as African and African Diaspora Studies 330V and Comparative Literature 323 (Topic 73). Study the adaptation of great dramatic literature of the Greek civilizations to their phenomenal evolution into popular African performances. Putting classical writings from Ancient Greek in dialogue with texts that formed the background of African anti-colonial revolutions, analyze how Africans have used these works to re-shape literary canon and given their world and their histories universal purchase. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330V, 374F (Topic: Greek Tragedy/Postcol Drama), Comparative Literature 323 (Topic: Greek Tragedy/Postcol Drama), 323 (Topic 73), Theatre and Dance 357T (Topic: Greek Tragedy/Postcol Drama), 357T (Topic 9). Additional prerequisite: For theatre and dance majors, consent of instructor; for all others, upper-division standing.

**Topic 10: Gwendolyn Brooks.** A study of the prose and poetry of Gwendolyn Brooks, giving particular attention to her novel, *Maud Martha*. Analyze texts, develop performance scripts, create criticism, and present readings centered around the work of Gwendolyn Brooks. Emphasis will be placed on Black Feminist staging strategies, the role of Chamber Theatre in the development of black art, and the position

of Gwendolyn Brooks in the literary world. Theatre and Dance 357T (Topic: Gwendolyn Brooks) and 357T (Topic 10) may not both be counted.

**Topic 11: Gwendolyn Brooks.** Same as African and African Diaspora Studies 330E and Women's and Gender Studies 340 (Topic 72). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330E, 372E (Topic: Gwendolyn Brooks), English 349S (Topic: Gwendolyn Brooks), Theatre and Dance 357T (Topic: Gwendolyn Brooks), 357T (Topic 11), Women's and Gender Studies 340 (Topic: Gwendolyn Brooks), 340 (Topic 72). Additional prerequisite: Upper-division standing.

**Topic 12: Reading Cannon.**

## **T D 372, 672, 972. Industry Internship.**

Restricted to majors in the Department of Theatre and Dance. Professional internship position in business and/or production. For every three semester hours of credit earned, at least ten internship hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, a University grade point average of at least 2.50, and consent of instructor.

## **T D 375H. Honors Seminar.**

Restricted to majors in the Department of Theatre and Dance. Comprehensive introduction to research in the area of theatre and dance. Three lecture hours a week for one semester. Prerequisite: Upper-division standing; admission to the Honors Program in Theatre and Dance; and consent of the head of the Theatre and Dance Honors Program.

## **T D 376H. Reading Tutorial in Theatre and Dance Problems.**

Individual projects to be completed under faculty supervision. The equivalent of three lecture hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing; Theatre and Dance 375H; admission to the Honors Program in Theatre and Dance; and consent of the head of the Theatre and Dance Honors Program.

## **T D 379H. Thesis Course for Departmental Honors.**

The equivalent of three lecture hours a week for one semester, with additional laboratory hours as required. May be taken twice for credit. May be repeated for credit. Prerequisite: Upper-division standing, Theatre and Dance 375H, admission to the Honors Program in Theatre and Dance, and consent of the head of the Theatre and Dance Honors Program.

## **Graduate Courses**

### **T D 280G. Production Skills for Actors.**

Laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, a major in acting, and consent of instructor.

### **T D 680M. Performance Studio.**

Exploration and practice in the skills and craft of acting, voice, dance, directing, and playwriting. Twenty laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit when the projects vary. Prerequisite: Graduate standing and consent of instructor.

### **T D 380N. Topics in Acting.**

Topics, restricted or broad in scope, related to the theory of acting, stage combat, movement, and voice. Laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**T D 180P, 280P, 380P. Advanced Projects in Performance.**

Projects inappropriate to organized courses but pertinent to students' training and development in acting, directing, dance, and playwriting. For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester, with laboratory hours as required. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**T D 381D. Seminar in Directing Theory.**

Application of aesthetic and creative principles to directing theory; application of directing theory to textual analysis and production concept. Three lecture hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**T D 381E. Topics in Directing Theory.**

Topics, restricted or broad in scope, related to the theory of directing. Three lecture hours a week for one semester, with additional laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**T D 381F. Advanced Acting and Directing.**

Problems in the theory and practice of acting and directing for the theatre. Three lecture hours a week for one semester, with additional laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, a major in acting, and consent of instructor.

**Topic 1: Advanced Acting.** Full exploration of the sources of dramatic action that reside in the self.

**Topic 2: Classical Acting.** Training in the acting skills needed for the performance of Shakespeare and other verse dramatists.

**Topic 3: Voice Studies I.** Training the actor in vocal coaching, voice anatomy, muscularity of speech, and vocal health.

**Topic 4: Voice Studies II.** Application of vocal techniques. Additional prerequisite: Theatre and Dance 381F (Topic 3).

**T D 481G. Advanced Acting and Directing Laboratory.**

Practical application of acting and directing techniques for the theatre. Twelve laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, a major in acting, and consent of instructor.

**Topic 1: Voice, Speech, and Movement I.** The basics of speech, phonetics, and mind and body awareness for the actor.

**Topic 2: Voice, Speech, and Movement II.** The physical side of acting, and articulation as it is applied to various types of text. Additional prerequisite: Theatre and Dance 481G (Topic 1).

**Topic 3: Voice, Speech, and Movement III.** Stage dialects and physical character development. Additional prerequisite: Theatre and Dance 481G (Topic 2).

**Topic 4: Voice, Speech, and Movement IV.** Individual research projects and advanced movement techniques. Additional prerequisite: Theatre and Dance 481G (Topic 3).

**Topic 5: Acting for the Camera.** Fundamentals of on-camera acting techniques.

**Topic 6: Acting Showcase.** Scenes and monologues to be used in the New York and Los Angeles evaluation showcases.

**Topic 7: Directing.** Practical application of directing techniques for the theatre.

**T D 381J. Directing: Modern Drama.**

Theory, analysis, and practice in directing plays from the modern period. Three lecture hours a week for one semester, with laboratory hours as

required. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**T D 381L. Directing: Period Drama I.**

Theory, analysis, and practice in directing plays from historical periods of drama. Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**T D 381M. Directing: Period Drama II.**

Continuation of Theatre and Dance 381L. Theory, analysis, and practice in directing plays from historical periods of drama. Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

**T D 382K. Seminar in Secondary School Theatre Curriculum.**

Theory and design of secondary school theatre curriculum. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, secondary school teacher certification, and consent of instructor.

**T D 383M. Topics in Theatre Outreach.**

Topics, restricted or broad in scope, related to the theory and practice of theatrical outreach. Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Theatre Outreach Methods.** Theory and design of a variety of outreach offerings.

**T D 183N, 283N, 383N. Theatre Outreach Practicum.**

Practical application of theatre outreach methods in communities. For each semester hour of credit earned, the equivalent of one class hour a week for one semester, with laboratory hours as required. May be repeated for credit when the projects vary. Prerequisite: Graduate standing and consent of instructor.

**T D 383P. Topics in Drama and Theatre for Youth.**

Topics pertinent to students' training and development in drama and theatre for youth. Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Puppetry.** Design, construction, and performance of puppets in children's theatre.

**Topic 2: Children's Dramatic Literature.** Comprehensive study of dramatic literature for children.

**Topic 3: Children's Dramatic Literature--International.** Comprehensive study of international dramatic literature for children. Material is studied in translation.

**Topic 4: Theatre in Education.** Theory and practice of interactive theatre in education.

**Topic 5: Creative Drama.** Advanced theory and practice of creative drama in field and educational settings.

**Topic 6: Practicum in Drama and Theatre for Youth.** Practical applications of approaches to drama and theatre for youth.

**Topic 7: Youth Theatre Tour.** Rehearsal, production, and performance of theatre for children in schools.

**Topic 8: Issues and Practices in Youth Theatre.** Issues in professional and community theatres for children.

**Topic 9: Special Problems: Directing for Young Audiences.** Challenges in staging plays for young audiences.

**Topic 10: Myth, Legend, and Tale.**

**Topic 11: Creative Drama in the Museum.** The application of creative drama methods in museum settings.

**Topic 19: Digital Storytelling with Youth and Communities.** Explores digital storytelling and applied theatre as tools for reflecting on self, building community, and fostering cultural engagement. Engagement in creative writing and devising through drama and digital technologies; collaborative development and documentation of digital stories and performance collages. Theatre and Dance 383P (Topic: Digital Storytelling) and 383P (Topic 19) may not both be counted.

#### **T D 184, 284, 384. Special Problems in Theatre and Dance.**

For each semester hour of credit earned, the equivalent of one class hour a week for one semester, with laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

#### **T D 385C. Topics in Theatre History.**

Topics, restricted or broad in scope, chosen from the history of theatre, both Western and non-Western. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Theatre History, 1660-1900.**

**Topic 2: Medieval and Renaissance Theatre History.** European theatrical history from the medieval and Renaissance periods.

**Topic 3: Classical and Asian Theatre History.** Survey of ancient Greek, Roman, and Asian theatrical history.

**Topic 4: 20th-Century Theatre History.**

**Topic 5: French Theatre, 1945-2000.**

**Topic 6: Contemporary Theatre History.**

#### **T D 385D. Topics in Dramaturgy.**

Topics pertinent to students' training and development in dramaturgical theory and practice. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Dramaturgy.**

**Topic 2: New Play Dramaturgy.**

**Topic 3: Production Dramaturgy.**

#### **T D 386. Topics in Dance.**

Topics pertinent to students' training and development in dance and choreography. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Dance in Academia.**

#### **T D 386C. Topics in the History, Theory, and Criticism of Dance.**

Topics pertinent to students' training and development in the history and theory of dance and choreography. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

#### **T D 186D, 286D, 386D, 486D. Dance Technique.**

Training in ballet, modern, and other forms of dance. For each semester hour of credit earned, the equivalent of one class hour a week for one semester, with laboratory hours as required. May be repeated for credit when the projects vary. Prerequisite: Graduate standing and consent of instructor.

#### **T D 387D. Topics in Performance Studies.**

Topics, restricted or broad in scope, related to performance studies. Three lecture hours a week for one semester. May be repeated for credit

when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Applied Drama and Theatre.** Survey of various applications of drama and theatre for communitarian and educational purposes.

**Topic 2: Performance Analysis.**

**Topic 3: Performance Ethnography.**

**Topic 4: Performing Autobiography.** The overlapping territory between performing the self and performing the biographical other.

**Topic 5: Seminar in Theatre History and Performance Studies.**

**Topic 6: Historical Case Studies.**

**Topic 8: Women and American Performance.**

**Topic 9: Adaptation for Stage and Screen.**

**Topic 10: Performance and Politics in the 1960s.**

**Topic 11: Performative Criticism.**

**Topic 12: Performing Black Feminisms.**

**Topic 13: Theatre of the Oppressed.** Overview of the movement inspired by Augusto Boal's Theatre of the Oppressed.

**Topic 14: American Musical Theatre.**

**Topic 15: Body, Culture, and Performance.**

**Topic 16: Dance, Women, and Narrative.**

**Topic 17: Feminist Theory and Performance.**

**Topic 18: Performance and Activism.**

**Topic 19: Performance and Cultural Studies.**

**Topic 20: Performance Theory Analysis.**

**Topic 21: Performative Writing.**

**Topic 22: Performing America, 1840-1940.**

**Topic 23: Queer Performance and Theory.** Current theories and practices of queer performance.

#### **T D 387M. Topics in Dramatic Theory and Criticism.**

Topics, restricted or broad in scope, concerning theory and criticism as they relate to drama or theatre. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Dramatic Theory and Criticism, Ancient Greece to the Eighteenth Century.**

**Topic 2: Dramatic Theory and Criticism, the Eighteenth Century to 1960.**

**Topic 3: World Theatre in Context.** Practical application of dramaturgical case study for the actor.

#### **T D 387N. Topics in Dramatic Form and Structure.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 2: Devised Work.** Theatre and Dance 387N (Topic: Devised Work) and 387N (Topic 2) may not both be counted.

#### **T D 387P. Playwriting Workshop.**

Theory and practice of dramatic writing. Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

#### **T D 387R. Playwriting For Youth.**

Advanced study and practice of writing plays for children and youth. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

#### **T D 388. Research Methods and Resources.**

Theory and practice of academic research for theatre artists. Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of instructor.

### **T D 388J. Advanced Design and Technology Studio.**

Problems in the theory of scenic design, costume design, lighting design, and theatre technology. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Costume Design.**

**Topic 2: Costume Technology.**

**Topic 3: Lighting Design.**

**Topic 4: Scenic Design.** Designed primarily for students studying scenic design. Fundamentals of scenic design.

**Topic 5: Theatre Technology.** Theory and application of the technical direction process.

### **T D 488K. Advanced Design and Technology Laboratory.**

Practical applications of production theory for theatrical designers and technicians. Laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Lighting Laboratory.** Practical and individual design experience in lighting.

**Topic 2: Technology Laboratory.** Practical and individual design experience in theatrical technology.

**Topic 3: Scenery Laboratory.** Practical and individual design experience in scenery.

**Topic 4: Costuming Laboratory.** Practical and individual design experience in costuming.

### **T D 388L. Advanced Topics in Design and Technology.**

Topics that are related to and support the study of theatrical design and technology. Three lecture hours a week for one semester, with laboratory hours as required. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Costume Rendering.** Fundamentals of costume research and drawing.

**Topic 2: Drawing for Theatre Designers.** Fundamentals of drawing and drafting for theatrical designers.

**Topic 3: Painting.** Painting techniques for theatrical designers.

**Topic 4: Automated Lighting I.** Fundamentals of automated and computer-aided lighting for theatre and live performance.

**Topic 5: Mask Making I.** Fundamentals of mask theory, design, and construction for theatre and live performance.

**Topic 6: Advanced Makeup.** Advanced theatrical makeup theory and techniques.

**Topic 7: Fabric Painting and Dyeing I.** Fundamentals of textile surface design.

**Topic 9: Draping I.** Basic clothing construction for theatrical productions.

**Topic 10: Draping II.** Advanced clothing construction for theatrical productions.

**Topic 11: Mask Making II.** Mask theory, design, construction for theatrical and live productions.

**Topic 12: Automated Lighting II.** Advanced automated and computer-aided lighting theory and techniques.

**Topic 13: Scenic Rendering.**

**Topic 14: Millinery I.** Fundamentals of hat design, fitting, and construction techniques.

**Topic 16: Rigging for the Theatre.** Historical and modern practices of theatrical rigging systems.

**Topic 17: Tailoring I.** Fundamental theory and techniques in tailoring for the live performer.

**Topic 18: Tailoring II.** Advanced theory and techniques in tailoring for the live performer.

**Topic 19: Concert Lighting.** Use of automation, computers, and remote control in lighting for live performance. Taught in San Jose, Costa Rica.

**Topic 23: Fabric Painting and Dyeing II.** Advanced textile surface design.

**Topic 24: Millinery II.** Advanced hat design, fitting, and construction techniques.

**Topic 25: Audio Production.** Fundamentals of audio production for the stage and other live performances.

**Topic 26: Costume Design Skills.** Fundamentals of research, drawing, rendering, and script and character analysis and critique for costume design.

**Topic 27: Lighting Design Skills.** Fundamentals of research, paperwork communication, and technology for lighting designers.

**Topic 28: Scenery Design Skills.** Fundamentals of drawing, drafting, and model building for theatrical designers.

**Topic 29: Figure and Fabric Rendering.** Principles of figure and fabric painting from life.

**Topic 30: Scene Painting.** Scene painting techniques for theatrical designers.

### **T D 188M, 288M, 388M. Advanced Projects in Design and Technology.**

Advanced independent study projects in scenic design, costume design, lighting design, and theatre technology. For each semester hour of credit earned, the equivalent of one class hour a week for one semester, with laboratory hours as required. May be repeated for credit when the projects vary. Prerequisite: Graduate standing and consent of instructor.

### **T D 388R. Research and History for the Visual Theatre.**

Study of the development of dress and decor, as seen in a general historical context, with an introduction to research methods appropriate for theatrical designers and technicians. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **T D 390C. Professional Development Workshop.**

Restricted to theatre and dance majors. New project development workshop for second year Playwrights and Directors who will collaborate with other students in teams to explore and develop new works. Three lecture hours a week for one semester with additional hours to be arranged. May be repeated for credit. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Graduate Standing and consent of instructor

### **T D 190K. Play Readings.**

Weekly readings of plays in various stages of development. One lecture hour a week for one semester, with laboratory hours as required. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **T D 390L. New Playwriting Studio.**

Three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and consent of instructor.

### **T D 190M, 290M, 390M. New Works Projects.**

Independent study projects in the production of new work. For each semester hour of credit earned, the equivalent of one class hour a week for one semester, with additional laboratory hours as required. May be repeated for credit when the projects vary. Prerequisite: Graduate standing and consent of instructor.

### **T D 391. Topics in Performance as Public Practice.**

Topics, restricted or broad in scope, related to performance as public practice. Three meeting hours a week for one semester. May be repeated

for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

**Topic 1: Historiography.** The history of history, in practice, as a discipline, and in writing.

**Topic 2: Proseminar: Performance as Public Practice.**

**Topic 3: Public Intellectuals and the Arts.**

**Topic 4: Community-Based Theatre.** The practice of theatre as a tool for community and social change.

**Topic 5: Cultural Policy and the Arts.**

### **T D 392, 692, 992. Graduate Internship in Theatre.**

Participation and observation as a working member of a theatre or theatre-related organization. Laboratory hours as required by the sponsor. The amount of credit awarded is commensurate with the duties of the internship. Offered on the credit/no credit basis only. Prerequisite: Completion of one year of a graduate degree program in the Department of Theatre and Dance, consent of instructor, approval of the faculty of the student's area of study, and approval of the Internship Committee of the Graduate Studies Committee.

### **T D 393. Seminar in Theory, Criticism, and Analysis.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **T D 395. Readings in History, Theory, Criticism, and Performance Studies.**

In-depth exploration of literature in specialized areas of interest, primarily as preparation for doctoral examinations and dissertation proposals. Conference course equivalent to three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of instructor.

### **T D 195P, 295P, 395P. Advanced Projects in Performance Studies.**

Advanced independent study projects in performance studies, theatre history, theory, criticism, performance as public practice, drama and theatre for youth, theatre outreach, and dramaturgy. For each semester hour of credit earned, the equivalent of one class hour a week for one semester, with laboratory hours as required. May be repeated for credit when the projects vary. Prerequisite: Graduate standing and consent of instructor.

### **T D 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. Offered on the credit/no credit basis only. Prerequisite: For Theatre and Dance 698A, graduate standing and consent of the graduate adviser; for 698B, Theatre and Dance 698A (or Drama 698A).

### **T D 398T. Supervised Teaching in Theatre and Dance.**

Theory and practice of pedagogy in theatre and dance. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### **T D 399W, 699W, 999W. Dissertation.**

May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Admission to candidacy for the doctoral degree.

## **Professional Courses**

# **Turkish Courses**

## **Turkish: TUR**

### **Lower-Division Courses**

#### **TUR 601C. Intensive Turkish I.**

First semester of intensive Turkish language instruction. Six lecture hours a week for one semester. Turkish 601C and 506 may not both be counted. Turkish 601C and 507 may not both be counted.

#### **TUR 506. First-Year Turkish I.**

Modern Standard Turkish. Five lecture hours a week for one semester. Turkish 601C and 506 may not both be counted.

#### **TUR 507. First-Year Turkish II.**

Modern Standard Turkish. Continuation of Turkish 506. Five lecture hours a week for one semester. Turkish 601C and 507 may not both be counted. Prerequisite: Turkish 506 with a grade of at least C.

#### **TUR 611C. Intensive Turkish II.**

Second semester of intensive Turkish language instruction. Six lecture hours a week for one semester. Turkish 611C and 412K may not both be counted. Turkish 611C and 412L may not both be counted. Prerequisite: Turkish 601C or 507 with a grade of at least C.

#### **TUR 412K. Second-Year Turkish I.**

Conversational Turkish and readings in contemporary Turkish literature and newspapers. Review of the grammar covered in Turkish 506 and 507, and introduction of more complex grammatical patterns. Four lecture hours a week for one semester. Turkish 611C and 412K may not both be counted. Prerequisite: Turkish 601C or 507 with a grade of at least C.

#### **TUR 412L. Second-Year Turkish II.**

Continuation of Turkish 412K. Four lecture hours a week for one semester. Turkish 611C and 412L may not both be counted. Prerequisite: Turkish 412K with a grade of at least C.

#### **TUR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Turkish.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

#### **TUR 320K. Intermediate Turkish I.**

Not open to native speakers of Turkish. Intermediate to high-level Turkish in four basic language skills: speaking, listening, reading, and writing. Turkish culture. Three lecture hours a week for one semester. Prerequisite: Turkish 611C or 412L with a grade of at least C.

#### **TUR 320L. Intermediate Turkish II.**

Not open to native speakers of Turkish. Continuation of Turkish 320K. Three lecture hours a week for one semester. Prerequisite: Turkish 320K with a grade of at least C.

#### **TUR 325K. Advanced Turkish I.**

Restricted to nonnative speakers of Turkish. Three lecture hours a week for one semester. Turkish 325K and 329 (Topic: Advanced Turkish I) may

not both be counted. Prerequisite: Turkish 320L with a grade of at least C.

### **TUR 325L. Advanced Turkish II.**

Restricted to nonnative speakers of Turkish. Advanced Turkish language instruction. Three lecture hours a week for one semester. Turkish 325L and 329 (Topic: Advanced Turkish II) may not both be counted. Prerequisite: Turkish 325K or the equivalent.

### **TUR 329. Topics in Turkish Language, Literature, and Culture.**

Conducted in Turkish. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and Turkish 611C or 412L with a grade of at least C.

### **TUR 329C. Turkish Cinema.**

Three lecture hours a week for one semester. Turkish 329 (Topic: Turkish Cinema) and 329C may not both be counted. Prerequisite: Turkish 611C or 412L with a grade of at least C.

### **TUR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Turkish.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Middle Eastern Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **TUR 130D. Turkish across Disciplines.**

Students read and discuss Turkish language materials related to the subject matter of another designated course. One lecture hour a week for one semester. No more than three semester hours may be counted toward the major in either Middle Eastern Studies or Middle Eastern Languages and Culture. May be repeated for credit. Prerequisite: Upper-division standing, Turkish 320L, and consent of instructor.

### **TUR 369. Conference Course in Turkish Language and Literature.**

Supervised individual study of selected problems in Turkish language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

### **TUR 679H. Honors Tutorial Course.**

Supervised individual reading for one semester, followed by research and writing to produce a substantial paper. Conference course for two semesters. Prerequisite: For 679HA, admission to the Turkish Language and Literature Honors Program; for 679HB, Turkish 679HA.

## **Graduate Courses**

### **TUR 380. Topics in Turkish Language and Literature.**

Study of various aspects or eras of Turkish language and literature. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and Turkish 412L or the equivalent.

### **TUR 381H. Intensive Graduate Language Instruction I.**

Intensive cultural and literacy-focused training in Turkish at the beginning level in preparation for research in the Turkic-speaking world or with Turkish sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Six lecture hours a week for one semester. Prerequisite: Graduate standing.

### **TUR 381J. Intensive Graduate Language Instruction II.**

Intensive cultural and literacy-focused training in Turkish at the low-intermediate level in preparation for research in the Turkic-speaking world or with Turkish sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Six lecture hours a week for one semester. Prerequisite: Graduate standing and Turkish 381H with a grade of at least B.

### **TUR 381K. Intermediate Graduate Language Instruction I.**

Intensive cultural and literacy-focused training in Turkish at the intermediate level in preparation for research in the Turkic-speaking world or with Turkish sources. Includes an independent project component. Incoming students are placed in the appropriate level by means of a departmental placement test. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Turkish 381J with a grade of at least B.

### **TUR 381L. Intermediate Graduate Language Instruction II.**

Intensive cultural and literacy-focused training in Turkish at the high-intermediate level in preparation for research in the Turkic-speaking world or with Turkish sources. Includes an independent project component. Incoming students are placed in the appropriate level by means of a placement test. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Turkish 381K with a grade of at least B.

### **TUR 381M. Advanced Language Instruction I.**

Restricted to non-native speakers of Turkish. Intensive cultural and literacy-focused training in Turkish at the advanced level in preparation for research in the Turkic-speaking world or with Turkish sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Turkish 381L or the equivalent with a grade of at least C.

### **TUR 381N. Advanced Language Instruction II.**

Restricted to non-native speakers of Turkish. Intensive cultural and literacy-focused training in Turkish at the advanced level in preparation for research in the Turkic-speaking world or with Turkish sources. Incoming students are placed in the appropriate level by means of a departmental placement test. Three lecture hours a week for one semester. Prerequisite: Graduate standing and Turkish 381M or the equivalent with a grade of at least C.

### **TUR 382. Topics in Turkish Culture.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing; additional prerequisites vary with the topic.

### **TUR 389. Conference Course in Turkish Studies.**

Supervised individual study of selected problems in Turkish studies. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing, consent of the graduate adviser, and consent of instructor.

### **TUR 390K. Advanced Turkish I.**

Intermediate to high-level Turkish in four basic language skills: speaking, listening, reading, and writing. Turkish culture. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Turkish 412L or the equivalent.

## **TUR 390L. Advanced Turkish II.**

Continuation of Turkish 390K. Three lecture hours a week for one semester. Prerequisite: Graduate standing, and Turkish 390K or the equivalent.

## **Professional Courses**

# **Tutorial Course Courses**

## **Tutorial Course: T C**

### **Lower-Division Courses**

#### **T C 302. First-Year Signature Course: Plan II.**

Restricted to first-year Plan II students. Small-group seminar involving reading, discussion, writing, and oral reporting around a central interdisciplinary topic. Designed to introduce undergraduates to scholarly analysis from an interdisciplinary perspective. Includes an introduction to University resources, such as research facilities, museums, and attendance at University lectures or performances as assigned. Multiple sections may be offered in the fall and spring with various topics and instructors. Three lecture hours a week for one semester. Some sections may require additional meeting times. Only one of the following may be counted: Tutorial Course 302, Undergraduate Studies 302, or 303.

#### **T C 303C. Plan II World Literature Part I.**

Restricted to students in the Plan II Honors Program. Reading of masterpieces of world literature and intensive training in writing and in critical analysis of literature. Three lecture hours a week for one semester. Only one of the following may be counted: Tutorial Course 303C, 603A; English 303C, 603A; Rhetoric and Writing 306, 306Q.

#### **T C 303D. Plan II World Literature Part II.**

Restricted to students in the Plan II Honors Program. Reading of masterpieces of world literature and intensive training in writing and in critical analysis of literature. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 315, English 303D, 603B, 316N, Tutorial Course 303D, 603B Prerequisite: Tutorial Course 303C or English 303C.

#### **T C 310. Modes of Reasoning.**

Introduction to forms of quantitative reasoning: computer science, game theory, operations research, or statistics and probability. Three lecture hours a week for one semester. Philosophy 313Q and Tutorial Course 310 may not both be counted. Prerequisite: Admission to the Plan II Honors Program.

## **Upper-Division Courses**

#### **T C 325. Topics in the Arts and Sciences.**

Analysis of various topics within the arts and sciences through reading, research, written reports, and discussion. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing in the Plan II Honors Program or consent of instructor; additional prerequisites vary with the topic.

#### **T C 125K. Subjects in the Arts and Sciences.**

Analysis of subjects in the arts, sciences, and social sciences through reading, discussion, and lectures. The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only. Prerequisite: Upper-division standing in the Plan II Honors Program or consent of instructor.

## **T C 126. Plan II/Knowledge Is Power Program Charter Schools Partnership.**

Restricted to students in the Plan II Honors Program. Mentorship of younger students attending an Austin-area Knowledge Is Power Program (KIPP) school. Through mentoring and class meetings, students will be deeply immersed in issues related to education reform, (in)equality of educational opportunity, and in promising strategies, such as those used by KIPP, for addressing such issues. The equivalent of one lecture hour and two hours of service a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Consent of instructor.

#### **T C 127. Civic Viewpoints.**

Restricted to students in the Plan II Honors Program. Explores civic engagement and innovative solutions for societal justice. The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only.

#### **T C 330. Special Topics in Plan II.**

Restricted to Plan II majors. Three lecture hours a week for one semester, with additional hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

#### **T C 358. Plan II Junior Seminar.**

Restricted to students in the Plan II Honors Program. Seminar sections of about fifteen students. The subjects vary, but in each the attempt is made through careful reading, discussion, and written work to analyze and compare varied approaches to topics of lasting importance. Three lecture hours a week for one semester. Students must take this course twice with different topics to fulfill degree requirements. May be repeated for credit when topics vary. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

#### **T C 359T. Essay Course.**

Directed reading followed by the writing of an essay. Conference course, with additional hours to be arranged. Prerequisite: Two semesters of Tutorial Course 358 (or 357) and consent of the director.

#### **T C 660H. Thesis Course: Honors.**

Directed reading followed by the writing of a substantial essay. Conference course for two semesters, with additional hours to be arranged. Prerequisite: For 660HA, two semesters of Tutorial Course 358 (or 357) and consent of the director; for 660HB, Tutorial Course 660HA.

## **Graduate Courses**

## **Professional Courses**

# **Ukrainian Courses**

## **Ukrainian: UKR**

### **Lower-Division Courses**

#### **UKR 406. First-Year Ukrainian I.**

Explore listening, speaking, reading, and writing. Four lecture hours a week for one semester. Only one of the following may be counted: Slavic and Eurasian Languages 330 (Topic: Ukrainian for Slavic Lrn I), Ukrainian 406, 308.

#### **UKR 407. First-Year Ukrainian II.**

Continue to explore listening, speaking, reading, and writing. Four lecture hours a week for one semester. Only one of the following may be counted: Slavic and Eurasian Languages 330 (Topic: Ukrainian for Slavic Lrn II), Ukrainian 407, 309. Prerequisite: Ukrainian 406.

# Undergraduate Studies Courses

## Undergraduate Studies: UGS

### Lower-Division Courses

#### UGS 302. First-Year Signature Course.

Restricted to first-year students. Seminar class focusing on a contemporary issue. Designed to introduce undergraduates to scholarly analysis from an interdisciplinary perspective. Includes an introduction to University resources, such as research facilities, museums, and attendance at University lectures or performances as assigned. Multiple sections may be offered in the fall and spring with various topics and instructors. Three lecture hours a week for one semester. Some sections may require additional meeting times; these are identified in the Course Schedule. Only one of the following may be counted: Tutorial Course 302, Undergraduate Studies 302, 303.

#### UGS 303. First-Year Signature Course.

Restricted to first-year students. Large-group lecture and discussion class focusing on a contemporary issue. Designed to introduce undergraduates to scholarly analysis from an interdisciplinary perspective. Includes an introduction to University resources, such as research facilities, museums, and attendance at University lectures or performances as assigned. Multiple sections may be offered in the fall and spring with various topics and instructors. Three lecture hours a week for one semester. Some sections may require additional meeting times; these are identified in the Course Schedule. Only one of the following may be counted: Tutorial Course 302, Undergraduate Studies 302, 303.

#### UGS 104. First-Year Interest Group Mentor Seminar.

Restricted to students selected as mentors for the First-Year Interest Group program. Issues and research in various areas of leadership, communication, student development, and the transition from high school to college. One lecture hour a week for one semester. Offered on the pass/fail basis only. Prerequisite: Consent of the program coordinator of the First-Year Interest Group program office.

#### UGS 104T. Transfer Year Interest Group Mentor Seminar.

Restricted to students selected as mentors for the Transfer-Year Interest Group program. Issues and research in various areas of leadership, communication, student development, and transfer student success. One hour a week for one semester. Offered on the pass/fail basis only.

#### UGS 106C. DSP Spring Seminar.

Restricted to students in the Discovery Scholars Program. Basic issues in various interdisciplinary fields of study. One hour a week for one semester. Offered on the pass/fail basis only.

#### UGS 107D. Topics in Undergraduate Studies.

Restricted to students in the School of Undergraduate Studies. Topics in undergraduate major and course exploration. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

**Topic 1: Spatial Visualization.** Research has shown that students with developed spatial visualization skills are more successful in physics, chemistry and calculus courses. Focus on how to 'see' things in 3-D, improving their success in these subjects and their ability to problem solve. Offered on the letter-grade basis only. Additional prerequisite: An appropriate score on the spatial visualization placement exam.

**Topic 2: Exploring Careers and Majors.** Aimed at undeclared students who are choosing a major or in the early stages of career exploration. Learn skills to make an informed and meaningful career decision

#### UKR 308. Ukrainian for Slavic Learners I.

Introduction to the Ukrainian language for those with a very basic background in one or more Slavic languages, who can read Cyrillic, and are familiar with some grammatical concepts. Explore listening, speaking, reading and writing skills, and integrate information on Ukrainian culture and life. Three lecture hours a week for one semester. Only one of the following may be counted: Slavic and Eurasian Languages 330 (Topic: Ukrainian for Slavic Lrn I), Ukrainian 406, 308. Prerequisite: A basic background in at least one Slavic Language and/or the ability to read Cyrillic.

#### UKR 309. Ukrainian for Slavic Learners II.

Continued introduction to the Ukrainian language for those with a very basic background in one or more Slavic languages. Continue to explore listening, speaking, reading and writing skills, as well as grammar. Read authentic texts and write responses to them, while integrating information on Ukrainian culture and life. Three lecture hours a week for one semester. Only one of the following may be counted: Slavic and Eurasian Languages 330 (Topic: Ukrainian for Slavic Lrn II), Ukrainian 407, 309. Prerequisite: Ukrainian 308.

#### UKR 312K. Second-Year Ukrainian I.

Explore listening, speaking, reading, and writing at the second-year level. Three lecture hours a week for one semester. Prerequisite: Ukrainian 309 or 407.

#### UKR 312L. Second-Year Ukrainian II.

Explore listening, speaking, reading, and writing at the advanced second-year level. Three lecture hours a week for one semester. Prerequisite: Ukrainian 312K.

#### UKR 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Ukrainian.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### Upper-Division Courses

#### UKR 325. Third-Year Ukrainian I.

Explore oral expression, reading, and composition. Three lecture hours a week for one semester. Prerequisite: Ukrainian 312L.

#### UKR 326. Third-Year Ukrainian II.

Continue to explore oral expression, readings, and composition. Three lecture hours a week for one semester. Prerequisite: Ukrainian 325.

#### UKR 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Ukrainian.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad advisor in the academic unit. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### Graduate Courses

### Professional Courses

and begin the process of career development. Use self-exploration activities and learn about resources to identify majors and careers that fit with their values, interests, personality and skills. Explores professional skills such as resume writing and internship planning to continue career development strategies. Offered on the letter-grade basis only.

### **UGS 309. Analytical Reading and Writing.**

Examine fundamental concepts in analytical reading from different disciplinary perspectives, with an emphasis on sociocultural influences on comprehension and writing styles. Three lecture hours a week for one semester.

### **UGS 110K, 210K, 310K. Undergraduate Research Experience.**

Restricted to freshmen and sophomores. Supervised research with a faculty member. Research may consist of an individual project or assisting a faculty research project. Individual instruction. Undergraduate Studies 110K and 110 may not both be counted. May be taken six times for credit. May be repeated for credit. Prerequisite: Consent of the undergraduate studies research coordinator.

### **UGS 111, 211, 311. Undergraduate Internship Experience.**

Supervised internship experience. Internships may be on or off campus, be paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. For 111, three hours of fieldwork a week for one semester; for 211, six hours of fieldwork a week for one semester; for 311, ten hours of fieldwork a week for one semester. Prerequisite: Consent of the undergraduate studies research coordinator.

### **UGS 312. Research Methods.**

Interdisciplinary introduction to research methods, designed to lead students through the process of designing an undergraduate research project. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of the undergraduate research coordinator.

### **UGS 114M. Fundamentals.**

Restricted to students in the School of Undergraduate Studies. Learn skills to increase academic potential. A specialized course facilitated by a Learning Specialist from the Sanger Learning Center designed to support students experiencing academic difficulty by providing structured academic support. Two lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Referral from academic advisor.

### **UGS 017. First-Year Connection Seminar.**

Restricted to students in a First-Year Connection seminar program. Basic issues in various interdisciplinary fields of study. One lecture hour a week for one semester. May not be counted toward any University of Texas at Austin degree. Fulfills the criteria for a 360 Connection. May be repeated for credit.

### **UGS 018. First-Year Interest Group Seminar.**

Restricted to students in the First-Year Interest Group Program. Basic issues in various interdisciplinary fields of study. One lecture hour a week for one semester. Fulfills the criteria for a 360 Connection.

### **UGS 018S. Sophomore Interest Group Seminar.**

Restricted to students in the Sophomore Interest Group program. Basic issues in various interdisciplinary fields of study. One lecture hour a week for one semester. May not be counted toward any University of Texas at Austin degree. May be repeated for credit.

### **UGS 018T. Transfer Interest Group Seminar.**

Restricted to students in the Transfer Interest Group Program. Basic issues in various interdisciplinary fields of study. One lecture hour a week for one semester. May not be counted toward any University of Texas at Austin degree. May be repeated for credit.

### **UGS 119. International Learning Seminar.**

Restricted to students registered in a Maymester Abroad course. Discussion of various issues related to the academic, cultural, and personal aspects of studying abroad in particular locations. Two lecture hours a week for eight weeks, or as required by the topic. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

## **Upper-Division Courses**

### **UGS 120K, 220K, 320K. Undergraduate Research Experience.**

Supervised research with a faculty member. Research may consist of an individual project or assisting a faculty research project. Individual instruction. Undergraduate Studies 120K, 220K, 320K and 120, 220, 320 may not both be counted. May be taken six times for credit. May be repeated for credit. Prerequisite: Upper-division standing and consent of the undergraduate studies research coordinator.

### **UGS 320L. Undergraduate Research Experience.**

Supervised research with a faculty member. Research may consist of an individual project and must meet the criteria for the independent inquiry flag. The equivalent of three lecture hours a week for one semester. With consent of the undergraduate studies research coordinator, may be repeated for credit. Undergraduate Studies 320F and 320L may not both be counted. May be repeated for credit.

### **UGS 121, 221, 321. Undergraduate Internship Experience.**

Supervised internship experience. Internships may be on or off campus, be paid or unpaid, and may include work with nonprofit agencies, government offices, or private corporations. For 121, three hours of fieldwork a week for one semester; for 221, six hours of fieldwork a week for one semester; for 321, ten hours of fieldwork a week for one semester. Prerequisite: Upper-division standing and consent of the undergraduate studies research coordinator.

## **Graduate Courses**

## **Professional Courses**

# **Urban Design Courses**

## **Urban Design: UDN**

### **Lower-Division Courses**

### **Upper-Division Courses**

### **Graduate Courses**

#### **UDN 380C. Topics in Visual Communication and Representation.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate advisor.

#### **UDN 381E. Topics in Landscape and Ecology.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of graduate advisor.

### **UDN 382M. Topics in Urban Development and Real Estate.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate advisor.

**Topic 1: Urban Land Institute Workshop.** Same as Architecture 386M (Topic 22). Only one of the following may be counted: Architecture 386M (Topic: Urban Land Institute Workshop) or Architecture 386M (Topic 22) or Urban Design 382M (Topic 1)

### **UDN 383M. Topics in Urban Geography.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate advisor.

### **UDN 384M. Topics in Urban Housing.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate advisor.

### **UDN 385M. Topics in Transportation Planning.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate advisor.

### **UDN 386M. Topics in Community and Regional Planning.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of graduate advisor.

### **UDN 387C. Urban Design Independent Research.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing, consent of the graduate advisor, and the approval of the Urban Design Graduate Committee.

### **UDN 387D. Urban Design Honors Research.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing and consent of the graduate advisor.

### **UDN 388K. Urban Design History, Theory, Criticism.**

Examine critical theories and practices that affect the built environment. Three lecture hours a week for one semester Urban Design 388K and Architecture 391C may not both be counted. Prerequisite: Graduate standing and consent of the graduate advisor.

### **UDN 188R, 388R. Topics in Urban Design History and Theory.**

For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate advisor.

**Topic 1: Futures and Cities.** For each semester hour of credit earned, the equivalent of one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate advisor.

### **UDN 389R. Topics in Historic Preservation.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate advisor.

### **UDN 690. Urban Design Planning Project.**

Restricted to students in the Master of Science in Community and Regional Planning and Master of Science in Urban Design dual degree program. Research project in urban design. The equivalent of three

lecture hours a week for two semesters. Urban Design 690 and Architecture 690J may not both be counted. Prerequisite: Graduate standing and consent of the graduate adviser

### **UDN 696. Topics in Urban Design Studio.**

The equivalent of fifteen laboratory hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate advisor.

### **UDN 696C. Urban Design Options Studio II.**

The equivalent of fifteen laboratory hours a week for one semester. Prerequisite: Graduate standing, Urban Design 696 with a grade of at least C, and consent of the graduate advisor.

### **UDN 696D. Urban Design Terminal Studio III.**

The equivalent of fifteen laboratory hours a week for one semester. Prerequisite: Graduate standing, completion of Urban Design 696C with a grade of at least C, and consent of the graduate advisor.

### **UDN 696E. Urban Design Honors Project.**

The equivalent of fifteen laboratory hours a week for one semester. Prerequisite: Graduate standing, Urban Design 387D with a grade of at least C, and consent of the graduate advisor.

### **UDN 698. Thesis.**

Three lecture hours a week for two semesters. Prerequisite: For 698A, graduate standing and consent of the graduate advisor; for 698B, Urban Design 698A.

## **Professional Courses**

# **Urban Studies Courses**

## **Urban Studies: URB**

### **Lower-Division Courses**

#### **URB 301. Introduction to Urban Studies.**

Same as Geography 307C. A multidisciplinary study of cities and complex urban environments; historical and contemporary issues from both national and international perspectives. Three lecture hours a week for one semester.

#### **URB 305. Introductory Topics in Urban Studies.**

An introduction to urban studies within the framework of different disciplines. Topics include urban history, urban education, politics and governance, economics, design and planning, and society and culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### **URB 315. Urban Studies Research Methods.**

An introduction to urban studies research methodologies. Includes sources of urban data, the use of the library in urban research, formulating research questions, research design, methods commonly used in urban research, the use of computers to store and manipulate quantitative urban data, and an introduction to data analysis and theoretical and practical applications of urban research. Three lecture hours a week for one semester. Prerequisite: Mathematics 408C or 408K with a grade of at least C-; Mathematics 316 and Urban Studies 301.

## **Upper-Division Courses**

#### **URB 320M. Modernism in American Design and Architecture.**

Same as American Studies 330 and Art History 339Q. A historical survey of artifacts, buildings, and urban environments, focusing on responses to machine-age civilization. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 330, Art

History 339Q, Urban Studies 352 (Topic 5), 320M. Prerequisite: Upper-division standing.

### **URB 320T. The Culture of Cities.**

Same as American Studies 370 (Topic 13) and Geography 356T (Topic 1). Examines the social, geographical, and cultural evolution of the United States from a rural and small-town society to an urban and suburban nation. Subjects may include the segregation of public and private space; the formation of urban subcultures organized by gender, work, race, religion, and sexuality; social and spatial divisions between rich and poor and native-born and immigrant; and the increasing importance of "cultural capital" in reshaping urban politics and in conflicts over revitalization and gentrification. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic 13), Geography 356T (Topic 1), Urban Studies 320T, 354 (Topic 4). Prerequisite: Upper-division standing.

### **URB 321D. Development Economics.**

Same as Economics 333K. Introduction to theories of economic development. Economic analysis of leading issues. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 333K, Urban Studies 351 (Topic 4), 321D. Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **URB 321R. Introduction to Risk Management.**

Same as Risk Management 357E. Principles of risk management for individuals and organizations, financial aspects of insurance companies and markets, industry structure, managerial aspects of underwriting and pricing, and public policy issues. Three lecture hours a week for one semester. Only one of the following may be counted: Risk Management 357E, Urban Studies 321R, 351 (Topic: Intro to Risk Management), 351 (Topic 6).

### **URB 321U. Urban Sociology.**

Same as Sociology 321U. Introduction to the study of the city and the suburbs. Specific focus on inequality in urban space, with emphasis on three major United States cities (New York, Chicago, and Los Angeles) and on several third world cities. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Urban Sociology), 321U, Urban Studies 354 (Topic 11), 321U. Prerequisite: Upper-division standing.

### **URB 322C. Vienna: Memory and the City.**

Same as American Studies 370 (Topic 41), European Studies 346 (Topic 5), and History 362C. Examines the ways in which cultural memory has shaped, and continues to shape, urban life in Vienna, Austria. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic 41), European Studies 346 (Topic 5), Geography 356T (Topic: Vienna: Memory and the City), Germanic, Scandinavian, and Dutch Studies 360 (Topic: Vienna: Memory and the City), History 362C, 362G (Topic 2), Urban Studies 322C, 354 (Topic 7). Prerequisite: Upper-division standing.

### **URB 322E. Urban Economics.**

Same as Economics 334K. Economic analysis of urban areas, emphasizing current problems, such as spatial concentration of poverty, lack of access to jobs and financial services, and transportation systems. Examines the role of policy in addressing these problems. Three lecture hours a week for one semester. Only one of the following may be counted: Economics 334K, Urban Studies 322E, 351 (Topic 2). Prerequisite: Economics 420K or 421K with a grade of at least C-.

### **URB 322P. Anthropology of Infrastructure.**

Same as Anthropology 323R. Explore how infrastructure creates relationships between resources, energy, built form, information,

and people. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 323R, 324L (Topic: Anthropology of Infrastructure), Urban Studies 322P, 352 (Topic: Anthropology of Infrastructure). Prerequisite: Upper-division standing.

### **URB 322T. Texas, 1900 to the Present.**

Same as History 320F and Mexican American Studies 320F. Examine the steady dissociation of Texas from its Old South status to a transitional state and a power in national politics. Three lecture hours a week for one semester. Only one of the following may be counted: History 320F, 320R, Mexican American Studies 320F, 374 (Topic 16), Urban Studies 322T, 353 (Topic 2). Prerequisite: Upper-division standing.

### **URB 323S. Building the Sustainable City.**

Same as Sociology 323S. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Building the Sustainable City), 323S, Urban Studies 323S, 352 (Topic: Building the Sustainable City), 352 (Topic 7). Prerequisite: Upper-division standing.

### **URB 324C. Urban Publics.**

Same as Geography 356T (Topic 5). The concept of the public in the city and how it has shifted over time along the lines of gender, ethnicity, race, and class. Examines contemporary struggles over defining the urban public and how those struggles are linked to social, cultural, political, and economic forces. Subjects include uses of public space, the public sphere, eminent domain, urban politics, civic engagement, and political participation. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 356T (Topic 5), Urban Studies 324C, 354 (Topic: Urban Publics). Prerequisite: Upper-division standing.

### **URB 324G. Global Cities in the United States.**

Same as American Studies 370 (Topic 64). Engage with the history of the global city at various levels, using text from disciplines including history, geography, anthropology, and sociology, as well as primary sources, images, readings, and films. Define the global city in the past and present and explore questions of race, class, gender, the politics of space, the culture of empire, and the changing shape of U.S. capitalism. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Global Cities in the U.S.), 370 (Topic 64), Urban Studies 324G. Prerequisite: Upper-division standing.

### **URB 325. Special Topics in Urban Studies.**

Three lecture hours a week for one semester. Additional hours may be required for some topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **URB 325E. The Healthy, Livable City.**

Same as Geography 325E. Explore the design of the built environment and its potential for addressing and preventing many childhood and adult health concerns in the United States. Examine how to create healthy, walkable, vital communities for all. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 325E, Geography 356 (Topic: The Healthy, Livable City), Urban Studies 325E, 352 (Topic: The Healthy, Livable City). Prerequisite: Upper-division standing.

### **URB 325L. Sociology of Criminal Justice.**

Same as Sociology 325L. Examination of the police, courts, and prisons: how they work, their impact on those who pass through them. Introduction to the American criminal justice system, its policies and procedures. The primary focus will be on the roles and functions of the police, the courts, and corrections, with a special emphasis on how well or not so well the system operates. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology

325L, Urban Studies 325L, 354 (Topic 12). Prerequisite: Upper-division standing.

### **URB 325R. Introduction to Real Estate and Urban Land Development.**

Same as Real Estate 358. An examination of the principles of real estate and urban land economics. Subjects include investment, valuation, financing, and public policy in real estate and mortgage markets. Three lecture hours a week for one semester. Only one of the following may be counted: Real Estate 358, Urban Studies 325R, 351 (Topic: Introduction to Real Estate and Urban Land Development), 351 (Topic 5). Prerequisite: Accounting 310F or 311 or 311H; and Finance 357 or 357H.

### **URB 326F. Berlin.**

Same as Comparative Literature 323 (Topic 44), European Studies 347 (Topic 34), German, Scandinavian, and Dutch Studies 361M, and History 361F. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Berlin), 323 (Topic 44), European Studies 347 (Topic: Berlin), 347 (Topic 34), German, Scandinavian, and Dutch Studies 360 (Topic: Berlin), 361M, History 361F, 362G (Topic: Berlin), 362G (Topic 17), Urban Studies 326F, 353 (Topic: Berlin), 353 (Topic 7). Prerequisite: Upper-division standing.

### **URB 327D. African American History since 1860.**

Same as African and African Diaspora Studies 357D, American Studies 321F, and History 357D. Survey of the history of African Americans in the United States from 1860 to the present: Emancipation, Reconstruction politics, migration and urbanization, and the evolution of African American culture; kinds of sources and methods valuable for analyzing African American life and culture. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 357D, American Studies 321 (Topic: African American History since 1860), 321F, History 357D, Urban Studies 327D, 353 (Topic 1). Prerequisite: Upper-division standing.

### **URB 327U. Urban Unrest.**

Same as African and African Diaspora Studies 360F, American Studies 321 (Topic 8), Anthropology 324L (Topic 46), and Asian American Studies 330G. Analysis of the roots of urban unrest, exploring a range of origins: joblessness, state violence, white flight, backlash against civil rights gains, new immigration, and interracial strife. Beyond race and class, subjects include exploring unrest as a mode of pushing the normative boundaries of gender and sexuality in public space. Course material will draw from film, literature, history, geography, and anthropology. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360F, 372F (Topic 13), American Studies 321 (Topic 8), Anthropology 324L (Topic 46), Asian American Studies 330 (Topic 6), 330G, Urban Studies 327U, 354 (Topic 14). Prerequisite: Upper-division standing.

### **URB 328C. Principles of Physical Planning.**

Same as Community and Regional Planning 369K. Introductory course in the physical dimension of urban planning. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 369J, Urban Studies 328C, 352 (Topic 6), or Community Regional Planning 369K. Prerequisite: For students in the School of Architecture: Architecture 333 with a grade of at least C and upper-division standing; for others, upper-division standing.

### **URB 328E. Environmental History of North America.**

Same as American Studies 329 and History 350R (Topic 7). The history of humanity's influence on the plants, animals, microlife, soils, water, and air of North America, and vice versa, from the arrival of the proto-Indians to the contemporary environmental crisis. Three lecture hours a week for one semester. Only one of the following may be counted:

American Studies 329, History 350R (Topic 7), Urban Studies 328E, 353 (Topic 5). Prerequisite: Upper-division standing and six semester hours of coursework in history.

### **URB 328L. Latino Urbanism in the United States City.**

Same as Mexican American Studies 350F. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 327R (Topic: Latino Urbanism in US City), Mexican American Studies 350F, 374 (Topic: Latino Urbanism in US City), Urban Studies 328L, 354 (Topic: Latino Urbanism in US City). Prerequisite: Upper-division standing.

### **URB 328S. Human Behavior and Social Environment.**

Same as Social Work 327. Restricted to social work majors. Explore the biopsychosocial and cultural functioning of human beings across the life span using an ecological-systems lens and major developmental theories as a framework to guide the processes of assessment, intervention, and evaluation. Discuss the impact of the family, social groups, organizations, communities, and society on individuals during these stages of the life span. Examine empirically-based research reflecting a risk and resilience perspective in making client assessments and recommending appropriate interventions. Three lecture hours and one laboratory hour a week for one semester. Only one of the following may be counted: Social Work 327, Urban Studies 354 (Topic: Human Behavior and Social Environment), 354 (Topic 10), Urban Studies 328S. Prerequisite: For social work majors, Social Work 310, 312, 313, 318, and 325 with a grade of at least C; for others, upper-division standing.

### **URB 330F. Urban Experiences In East Asia.**

Same as Asian Studies 361E. Explores the process of urbanization in East and Southeast Asia focusing on the politics of capital accumulation and distribution. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Urban Experiences In East Asia), 361E, Urban Studies 354 (Topic: Urban Experiences In East Asia), 330F. Prerequisite: Upper-division standing.

### **URB 330G. The Global City.**

Same as African and African Diaspora Studies 351, American Studies 324E, and Anthropology 324S. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351, 374D (Topic: The Global City), American Studies 321 (Topic: The Global City), 324E, Anthropology 324L (Topic: The Global City), 324S, Urban Studies 330G, 353 (Topic: The Global City). Prerequisite: Upper-division standing.

### **URB 332D. Human Health and the Environment.**

Same as Geography 322D. Introduction to environmental health concepts. Examine current events to explore the relationship between environment and health and whether an environmental condition is or is not an important threat to health. Discuss the complexity of determining "proof" in this field. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 322D, 356T (Topic 9), Urban Studies 332D, 350 (Topic 2). Prerequisite: Upper-division standing.

### **URB 337. The Modern American City.**

Same as Architecture 350R (Topic 1) and Geography 337. Issues facing residents of United States cities, such as transportation and housing, poverty and crime, metropolitan finance, environmental and architectural design; historical/comparative urban evolution. Three lecture hours a week for one semester. Only one of the following may be counted: Architecture 350R (Topic 1), Geography 337, Urban Studies 337, 352 (Topic 1). Prerequisite: For students in the School of Architecture, upper-division standing; for others, upper-division standing and consent of instructor.

### **URB 338S. Society of Modern Mexico.**

Same as Latin American Studies 325 (Topic 1) and Sociology 335. Family, community, industrialization, and urbanization in modern Mexico. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 325 (Topic 1), Sociology 335, Urban Studies 338S, 354 (Topic 2). Prerequisite: Upper-division standing.

### **URB 340. Contemporary Cultural Geography.**

Same as Geography 336. Recent theoretical developments in cultural geography, with a focus on landscapes and the everyday practices that imbue them with meaning; the ways those meanings are contested and are the foci of struggle; and how the relationship between culture and space plays a central role in the social construction of identity. Three lecture hours a week for one semester. Only one of the following may be counted: Geography 336, Urban Studies 340, 354 (Topic 8). Prerequisite: Upper-division standing.

### **URB 342C. Water and the Roman City.**

Same as Classical Civilization 340 (Topic 11). Examine Roman urban development, design, and adaption from the perspective of hydrology, hydraulics, and cult and culture. Three lecture hours a week for one semester. Only one of the following may be counted: Classical Civilization 340 (Topic: Water and the Roman City), 340 (Topic 11), Urban Studies 342C, 353 (Topic: Water and the Roman City). Prerequisite: Upper-division standing.

### **URB 350. Topics in Urban Politics and Governance.**

The basic political and administrative structures of cities and metropolitan regions, including problems associated with local and regional government. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **URB 351. Topics in Urban Economics.**

Urban economics and the application of economic analysis to urban concerns, including economic development, urbanization, urban form, public finance, and competition. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **URB 352. Topics in Urban Design and Planning.**

Issues concerning the built environment and urban infrastructure, environmental sustainability, and the public policy framework designed to manage the challenges presented by these issues. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 4: Economy/Value/Quality of Life.** Architecture 350R (Topic 4) and Urban Studies 352 (Topic 4) may not both be counted.

### **URB 352C. American Dilemmas.**

Same as Sociology 336C and Women's and Gender Studies 345 (Topic 26). Examination of critical American social problems, including problems in the economic, political, and health care systems, as well as inequities based on income, gender, and race. Exploration of how these problems are a natural outgrowth of the existing social structure. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 336C, Urban Studies 352C, 354 (Topic 13), Women's and Gender Studies 345 (Topic 26). Prerequisite: Upper-division standing.

### **URB 353. Topics in Urban History.**

The historical evolution of cities, contemporary urban development trends, and the links between social development and physical form.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **URB 354. Topics in Urban Society and Culture.**

Topics on the social and cultural diversity within cities; social policies; and the sociocultural impact of the media and other institutions on urban development. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

#### **Topic 9: Negotiating Urbanization: Case Studies in Turkey.**

Same as Middle Eastern Studies 341 (Topic 6). Examines local and transnational forces that have driven and continue to drive contemporary urbanization in Turkey. Focuses on key issues that emerge in rapidly growing cities of the developing world, such as growing income inequality and socioeconomic exclusion, environmental challenges, and rising violence. Only one of the following may be counted: Middle Eastern Studies 326 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), 341 (Topic 6), Turkish 372 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), Urban Studies 354 (Topic: Negotiating Urbanization in the Middle East: Case Studies in Turkey), 354 (Topic 9).

### **URB 355U. Urban Politics.**

Same as Government 370U. Examine politics in American cities. Three lecture hours a week for one semester. Only one of the following may be counted: Government 370L (Topic: Urban Politics), 370L (Topic 11), 370U, Urban Studies 350 (Topic 1), 355U. Prerequisite: Six semester hours of lower-division coursework in Government.

### **URB 360. Internship and Service Learning.**

Same as Geography 340U. Internship experience in an urban studies-related public or nonprofit agency. The opportunity to apply the knowledge, theory, and understanding gained from courses in areas of specialization to urban issues in a professional setting. Includes an academic service-learning component. Approximately five to ten hours a week for one semester. Only one of the following may be counted: Geography 340U, 356T (DIRECTED INTRNSHPS IN URB STDS), Urban Studies 360. Prerequisite: Upper-division standing; and Urban Studies 301 and 315.

### **URB 370. Senior Project.**

Students identify an urban issue, develop a position paper, and work closely with a faculty adviser on a project. Students may use text or other media (such as video or portfolio) to present their arguments. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing, and Urban Studies 301, 315, and 360 with a grade of at least C in each.

### **URB 379. Conference Course.**

Supervised individual study of selected problems in urban studies. Conference course. Prerequisite: Upper-division standing and consent of instructor and the undergraduate adviser.

### **URB 679H. Honors Tutorial Course.**

Directed reading and research or creation of an honors project, followed by the writing of a thesis. Conference course for two semesters. Prerequisite: For 679HA, admission to the Urban Studies Honors Program and consent of the urban studies adviser; for 679HB, Urban Studies 679HA.

## **Graduate Courses**

## **Professional Courses**

# Urdu Courses

## Urdu: URD

### Lower-Division Courses

#### URD 604. Accelerated First-Year Urdu.

Designed for students who have some knowledge of spoken Urdu but have not studied Urdu formally. Six lecture hours a week for one semester. Hindi 604 and Urdu 604 may not both be counted; Hindi 506 and Urdu 604 may not both be counted; Hindi 507 and Urdu 604 may not both be counted; Urdu 604 and 506 may not both be counted; Urdu 604 and 507 may not both be counted.

#### URD 506. First-Year Urdu I.

Not open to native speakers of Urdu. Five class hours a week for one semester. Urdu 604 and 506 may not both be counted.

#### URD 507. First-Year Urdu II.

Not open to native speakers of Urdu. Five class hours a week for one semester. Urdu 604 and 507 may not both be counted. Prerequisite: Urdu 506 with a grade of at least C.

#### URD 612. Accelerated Second-Year Urdu.

Continuation of Urdu 604. Six lecture hours a week for one semester. Urdu 612 and 312K may not both be counted; Urdu 612 and 312L may not both be counted. Prerequisite: Urdu 604 with a grade of at least C.

#### URD 312K. Second-Year Urdu I.

Not open to native speakers of Urdu. Introduction to the Urdu script, followed by Urdu reading, composition, and conversation. Three lecture hours a week for one semester. Urdu 612 and 312K may not both be counted. Prerequisite: Urdu 507 with a grade of at least C.

#### URD 312L. Second-Year Urdu II.

Not open to native speakers of Urdu. Continuation of Urdu 312K. Three lecture hours a week for one semester. Urdu 612 and 312L may not both be counted. Prerequisite: Urdu 312K with a grade of at least C.

#### URD 118K. Practice in Spoken Urdu I.

Not open to native speakers of Urdu. Instruction and practice in conversation for intermediate-level students. Two lecture hours a week for one semester. Prerequisite: Urdu 507 with a grade of at least C.

#### URD 118L. Practice in Spoken Urdu II.

Not open to native speakers of Urdu. Two lecture hours a week for one semester. Prerequisite: Urdu 118K with a grade of at least C.

### Upper-Division Courses

#### URD 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Urdu.

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Asian Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### URD 330. Topics in Urdu Language and Literature.

Study of specific subjects related to Urdu culture as reflected in literary productions and other modes of expression. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Urdu 312L with a grade of at least C.

**Topic 1: Female Voices in Urdu Literature.** Survey of prose and poetry written in Urdu by women during the last three centuries. Only one of the following may be counted: Religious Studies 341 (Topic: Female Voices in Urdu Literature), Urdu 330 (Topic 1), 384 (Topic 4).

**Topic 2: Love and Devotion in Urdu Literature.** Examination of various literary genres that are shaped by discourses on the love of God and devotion to the prophet Muhammad. Urdu 330 (Topic 2) and 384 (Topic 5) may not both be counted.

**Topic 3: Philosophy and Poetry of Iqbal.** Explores the prose and poetry written by the most influential twentieth-century Muslim reformer in South Asia, Muhammad Iqbal. Urdu 330 (Topic 3) and 384 (Topic 6) may not both be counted.

**Topic 4: Urdu Aesthetics.** Intensive overview of the most popular lyrical genre of Urdu poetry, the ghazal, and the standards used to judge a good ghazal. Urdu 330 (Topic 4) and 384 (Topic 7) may not both be counted.

**Topic 5: Urdu Short Stories: Manto.** Survey of the writings of Sadat Hasan Manto. Primary texts in Urdu, secondary materials in English. Urdu 330 (Topic: Urdu Short Stories: Manto) and 330 (Topic 5) may not both be counted.

**Topic 6: Qawwali Aesthetics.** Examination of the devotional currency of Qawwali, and issues of gender, class, religious differences, and nationalism. Explores the relationship between oral and written literature and tensions between local aesthetics and the process of globalization. Urdu 330 (Topic: Qawwali Aesthetics) and 330 (Topic 6) may not both be counted.

**Topic 7: Partition in Literature and Film.** Urdu 330 (Topic: Partition in Literature and Film) and 330 (Topic 7) may not both be counted.

#### URD 130D. Urdu Across Disciplines.

Reading of Urdu language materials related to the subject matter of another designated course in Asian studies. One lecture hour a week for one semester. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May be repeated for credit. Prerequisite: Registration for an appropriate Asian studies course, and written consent of instructor on form obtained from the undergraduate adviser.

#### URD 330G. Gender and Sexuality in Urdu-Hindi.

Three lecture hours a week for one semester. Urdu 330 (Topic: Gender/Sexuality In Urdu-Hindi) and 330G may not both be counted. Prerequisite: Urdu 312L with a grade of at least C.

#### URD 332. Style and Register in Urdu.

Practice of skills in reading, listening, writing, and speaking for everyday social situations and some formal situations. Relevant to students working toward the "Advanced" level on the American Council for the Teaching of Foreign Languages (ACTFL) proficiency scale, equivalent to level 2 on the Interagency Language Roundtable (ILR) scale. Three lecture hours a week for one semester. Urdu 330 (Topic: Style and Register in Urdu) and 332 may not both be counted. Prerequisite: Urdu 312L with a grade of at least C.

#### URD 434K, 534K, 634K. Flagship Urdu VII.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

#### URD 434L, 534L, 634L. Flagship Urdu VIII.

For each semester hour of credit earned, one lecture hour a week for one semester. Prerequisite: Consent of instructor.

#### URD 360. Conference Course in Urdu Language and Literature.

Supervised individual study of selected problems in Urdu language or literature. Conference course. May be repeated for credit. Prerequisite:

Upper-division standing and written consent of instructor on form obtained from the undergraduate adviser.

## Graduate Courses

### URD 381. Conference Course in Urdu Language and Culture.

Supervised individual study. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Graduate standing and written consent of instructor on form obtained from the graduate coordinator.

### URD 384. Topics in Urdu Language and Culture.

Study of various aspects and periods of Urdu language and culture. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing, and six semester hours of upper-division coursework in Urdu with a grade of at least C; additional prerequisites vary with the topic.

**Topic 1: Advanced Reading, Composition, and Conversation I.**

**Topic 2: Advanced Reading, Composition, and Conversation II.**

**Topic 3: Readings in Urdu.**

**Topic 4: Female Voices in Urdu Literature.** Survey of prose and poetry written in Urdu by women during the last three centuries. Only one of the following may be counted: Religious Studies 341 (Topic: Female Voices in Urdu Literature), Urdu 330 (Topic 1), 384 (Topic 4).

**Topic 5: Love and Devotion in Urdu Literature.** Examination of various literary genres that are shaped by discourses on the love of God and devotion to the prophet Muhammad. Urdu 330 (Topic 2) and 384 (Topic 5) may not both be counted.

**Topic 6: Philosophy and Poetry of Iqbal.** Explores the prose and poetry written by the most influential twentieth-century Muslim reformer in South Asia, Muhammad Iqbal. Urdu 330 (Topic 3) and 384 (Topic 6) may not both be counted.

**Topic 7: Urdu Aesthetics.** Intensive overview of the most popular lyrical genre of Urdu poetry, the ghazal, and the standards used to judge a good ghazal. Urdu 330 (Topic 4) and 384 (Topic 7) may not both be counted.

**Topic 8: Style and Register in Urdu.** Practice of skills in reading, listening, writing, and speaking for everyday social situations and some formal situations. Relevant to students working toward the "Advanced" level on the American Council for the Teaching of Foreign Languages (ACTFL) proficiency scale, equivalent to level 2 on the Interagency Language Roundtable (ILR) scale. Urdu 384 (Topic: Style and Register in Urdu) and 384 (Topic 8) may not both be counted. Additional prerequisite: Reading and writing comprehension of Urdu equivalent to two academic years' study of Urdu, or consent of instructor.

**Topic 9: Urdu Short Stories: Manto.** Survey of the writings of Sadat Hasan Manto. Primary texts in Urdu, secondary materials in English. Urdu 384 (Topic: Short Stories: Manto) and 384 (Topic 9) may not both be counted.

**Topic 10: Qawwali Aesthetics.** Examination of the devotional currency of Qawwali, and issues of gender, class, religious differences, and nationalism. Explores the relationship between oral and written literature and tensions between local aesthetics and the process of globalization. Urdu 384 (Topic: Qawwali Aesthetics) and 384 (Topic 10) may not both be counted.

**Topic 11: Gender and Sexuality in Urdu-Hindi.** Urdu 384 (Topic: Gender/Sexuality In Urdu-Hindi) and 384 (Topic 11) may not both be counted.

## Professional Courses

# UTeach-Liberal Arts Courses

## UTeach-Liberal Arts: UTL

### Lower-Division Courses

#### UTL 101. Introduction to the Teaching Profession.

Weekly seminar with a University faculty member plus a field experience in an area elementary school under the supervision of a cooperating teacher. Course readings and instruction complement the field experience. Seminar topics include basic classroom management, lesson design, assessment, technology, diversity, and special student populations. One class hour a week for one semester; at least ten hours of fieldwork a semester are also required. Offered on the letter-grade basis only. Prerequisite: Successful admission into the UTeach-Liberal Arts program and consent of the UTeach adviser in the College of Liberal Arts.

#### UTL 202. Introduction to Teaching in the Middle School.

Weekly seminar with a University faculty member plus a field experience in an area middle school under the supervision of a cooperating teacher. Course readings and instruction complement field experience. Seminar topics include classroom management, lesson design, assessment, technology, diversity, special student populations, conferencing techniques, and school organization. Two class hours a week for one semester; at least twenty hours of fieldwork a semester are also required. Offered on the letter-grade basis only. Prerequisite: UTeach-Liberal Arts 101 with a grade of at least B, and consent of the UTeach adviser in the College of Liberal Arts.

#### UTL 303E. Teaching English in the High School.

Weekly seminar with a University faculty member, plus field experience in an area high school under the supervision of a cooperating teacher. Course readings and instruction complement field experience. Seminar topics include state and national standards, curriculum design and implementation, the role of technology in education, and teaching strategies with a special focus on innovative strategies for teaching literature and writing. Three lecture hours a week for one semester; at least forty-five hours of fieldwork a semester are also required. Offered on the letter-grade basis only. Prerequisite: UTeach-Liberal Arts 101 and 202 with a grade of at least B in each; concurrent enrollment in Curriculum and Instruction 370S (Topic 1: Advanced Methods in English, Language Arts, and Reading); and consent of the UTeach adviser in the College of Liberal Arts.

#### UTL 303L. Teaching Languages Other Than English in the High School.

Weekly seminar with a University faculty member, plus field experience in an area high school under the supervision of a cooperating teacher. Course readings and instruction complement the field experience. Seminar topics include state and national standards and their implementation, teaching for proficiency, curriculum design, assessment, best practices, the instructional environment, and the role of technology in teaching languages other than English. Three lecture hours a week for one semester; at least forty-five hours of fieldwork a semester are also required. Offered on the letter-grade basis only. Prerequisite: UTeach-Liberal Arts 101 and 202 with a grade of at least B in each; concurrent enrollment in Curriculum and Instruction 370S (Topic 5: Advanced Methods in Foreign Language); and consent of the UTeach adviser in the College of Liberal Arts.

#### UTL 303S. Teaching Social Studies in the High School.

Weekly seminar with a University faculty member, plus field experience in an area high school under the supervision of a cooperating teacher. Course readings and instruction complement the field experience.

Seminar topics include social studies topics, standards, curriculum design and implementation, teaching strategies, technology, and vertical and horizontal teaming in social studies. Three lecture hours a week for one semester; at least forty-five hours of fieldwork a semester are also required. Offered on the letter-grade basis only. Prerequisite: UTeach-Liberal Arts 101 and 202 with a grade of at least B in each; concurrent enrollment in Curriculum and Instruction 370S (Topic 3: Advanced Methods in Social Studies); and consent of the UTeach adviser in the College of Liberal Arts.

### **UTL 304. Middle School Teaching for Postbaccalaureate Certification.**

Designed for college graduates seeking teacher certification. Students observe and teach in a middle school under the supervision of a mentor teacher, and participate in a weekly seminar. Seminar topics may include classroom management, lesson design, assessment, technology, diversity, special student populations, conference techniques, and professional development. Three lecture hours and two hours of fieldwork a week for one semester. May not be counted toward any degree. Prerequisite: Consent of the UTeach adviser in the College of Liberal Arts.

## **Upper-Division Courses**

### **UTL 320. Topics in Teaching the Liberal Arts.**

Introduction to various topics related to middle grades, secondary, and all-level teaching certification. Topics may include history, social studies, English language arts, and languages other than English. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Consent of the UTeach adviser in the College of Liberal Arts.

### **UTL 640. Teaching in Secondary Schools.**

Restricted to students entering the professional development sequence of the UTeach-Liberal Arts program. Course readings and instruction complement the field experience. Seminar topics include theoretical foundations for subject-specific methods, state and national standards and their implementation, teaching for proficiency, curriculum design, assessment, best practices, the instructional environment, and the role of technology in teaching. The equivalent of six lecture hours and four fieldwork hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: UTeach-Liberal Arts 101 and 202 with a grade of at least B in each, and consent of the UTeach adviser in the College of Liberal Arts.

### **UTL 341R. Overcoming Reading Difficulties.**

Restricted to UTeach-Liberal Arts students. Subjects may include the basic terminology related to special needs students, recognizing differences in learning disabilities, evaluating teaching methods and materials, and teaching strategies that address the needs of special needs students, with a special focus on reading strategies. Three lecture hours a week for one semester. Rhetoric and Writing 379C (Topic: Overcoming Reading Difficulties) and UTeach-Liberal Arts 341R may not both be counted. Offered on the letter-grade basis only. Prerequisite: Applied Learning and Development 322 and consent of instructor.

### **UTL 360. Problems and Principles of Secondary Education.**

Restricted to students in the final student teaching semester of the UTeach-Liberal Arts program. Draws upon resources found in the directed-teaching environment; considers problems and issues in four broad areas: students in the school, the teacher's professional responsibilities, curriculum understandings, and administrative and organizational problems. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Concurrent

enrollment in UTeach-Liberal Arts 670, and consent of the UTeach adviser in the College of Liberal Arts.

### **UTL 670. Directed Teaching in Secondary Schools.**

Restricted to students in the final student teaching semester of the UTeach-Liberal Arts program. Observation and teaching in secondary school classrooms as well as an exploration of other roles of the secondary school teacher, under the joint supervision of University and public school personnel. The equivalent of two lecture hours and forty fieldwork hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in UTeach-Liberal Arts 360, and consent of the UTeach adviser in the College of Liberal Arts.

## **Graduate Courses**

### **Professional Courses**

## **UTeach-Natural Sciences Courses**

### **UTeach-Natural Sciences: UTS**

#### **Lower-Division Courses**

#### **UTS 101. Secondary Teacher Education Preparation: Step 1.**

Introduction to mathematics, computer science, and science teaching as a career. Discussions include standards-based lesson design and various teaching and behavior management strategies. Fieldwork consists of five visits to a local elementary school, including planning and teaching three inquiry-based lessons to students in grades three to six. One and one-half class hours a week for one semester; at least ten hours of fieldwork a semester are also required. Chemistry 107 (Topic: STEP1-UTeach) and UTeach-Natural Sciences 101 may not both be counted.

#### **UTS 306J. Hands-On Science I.**

The first of an integrated sequence of laboratory-based courses. Subjects include energy and motion, electrical circuits, atomic theory, waves, and sound. Two lecture hours and three laboratory hours a week for one semester. Only one of the following may count: UTeach-Natural Sciences 306J and Natural Sciences 306J.

#### **UTS 306K. Hands-On Science II.**

The second of an integrated sequence of laboratory-based courses. Subjects include physical and chemical properties of matter, Earth's building blocks, plate tectonics, landforms, and weathering. Two lecture hours and three laboratory hours a week for one semester. Only one of the following may count: UTeach-Natural Sciences 306K, Natural Sciences 306K. Prerequisite: UTeach-Natural Sciences 306J (Natural Sciences 306J) with a grade of at least C-.

#### **UTS 306L. Hands-On Science III.**

The third of an integrated sequence of laboratory-based courses. Subjects include properties of life, compartments of living organisms, inheritance, adaptations, variations, and disease. Two lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: UTeach-Natural Sciences 306L, Natural Sciences 306L. Prerequisite: UTeach-Natural Sciences 306J and 306K (Natural Sciences 306J and 306K) with a grade of at least C- in each.

#### **UTS 306M. Hands-On Science IV.**

The fourth of an integrated sequence of laboratory-based courses. Subjects include astronomy and the earth's climate. Two lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: UTeach-Natural Sciences 306M, Natural Sciences 306M. Prerequisite: UTeach-Natural Sciences 306J and 306K (Natural Sciences 306J and 306K) with a grade of at least C- in each.

### **UTS 110. Secondary Teacher Education Preparation: STEP 2.**

Topics may include routes to teacher certification in mathematics, computer science, and science teaching; various teaching methods that are designed to meet instructional goals; and learner outcomes. Students develop and teach three inquiry-based lessons in their field in a middle school, and participate in peer coaching. One and one-half class hours a week for one semester; at least twenty hours of fieldwork a semester are also required. Biology 101C (Topic: STEP 2) and UTeach-Natural Sciences 110 may not both be counted. Prerequisite: UTeach-Natural Sciences 101 with a grade of at least C-, and a University grade point average of at least 2.20.

### **UTS 211. Secondary Teacher Education Prep: Advanced Steps.**

Restricted to UTeach Natural Sciences students. Accelerated introduction to mathematics, computer science, and science teaching as a career. Discuss standards-based lesson design and various teaching and behavior management strategies. Plan and teach inquiry-based lessons to students in grades three to eight while visiting local elementary and middle schools. Three lecture hours a week for one semester. Prerequisite: Upper-division standing and approval of the UTeach Natural Sciences Adviser.

## **Upper-Division Courses**

### **UTS 350. Knowing and Learning in Math and Science.**

Same as Curriculum and Instruction 365C. Restricted to students in the UTeach-Natural Sciences program. Psychological foundations of learning; problem solving in mathematics and science education utilizing technology; principles of expertise and novice understanding of subject matter; implications of high-stakes testing; and foundations of formative and summative assessment. Three lecture hours a week for one semester; additional hours may be required. Curriculum and Instruction 365C and UTeach-Natural Sciences 350 may not both be counted. Prerequisite: Credit with a grade of at least C- or registration for UTeach-Natural Sciences 101.

### **UTS 355. Classroom Interactions.**

Same as Curriculum and Instruction 365D. Restricted to students in the UTeach-Natural Sciences program. Principles of delivering effective instruction in various formats (lecture, lab activity, collaborative settings); examination of gender, class, race, and culture in mathematics and science education; overview of policy related to mathematics and science education. Three lecture hours a week for one semester; additional hours may be required. Curriculum and Instruction 365D and UTeach-Natural Sciences 355 may not both be counted. Prerequisite: The following courses with a grade of at least C-: Curriculum and Instruction 365C or UTeach-Natural Sciences 350, and UTeach-Natural Sciences 110; and a University grade point average of at least 2.50.

### **UTS 360. Project-Based Instruction.**

Same as Curriculum and Instruction 365E. Restricted to students in the UTeach-Natural Sciences program. Foundations of project-based, case-based, and problem-based learning environments; principles of project-based curriculum development in mathematics and science education; classroom management and organization of project-based learning classrooms. Three lecture hours a week for one semester with additional fieldwork hours to be arranged. Curriculum and Instruction 365E and UTeach-Natural Sciences 360 may not both be counted. Prerequisite: Curriculum and Instruction 365D or UTeach-Natural Sciences 355 with a grade of at least C-, and a University grade point average of at least 2.50.

### **UTS 170. Student Teaching Seminar.**

Restricted to students in the UTeach-Natural Sciences program who have earned a passing score on the preliminary portfolio. Discussions

include student teaching experiences, contemporary critical issues in education, and preparation for the state certification exam. One lecture hour a week for one semester. Chemistry 107 (Topic: Special Topics Seminar) and UTeach-Natural Sciences 170 may not both be counted. Prerequisite: Credit or registration for Curriculum and Instruction 651S, and a University grade point average of at least 2.50.

### **UTS 171. UTeach Induction Support.**

Restricted to students in the UTeach-Natural Sciences program. Engage in individualized, job-embedded activities to support student learning and analyze the impact of their work. The equivalent of one lecture hour a week for one semester. Prerequisite: UTeach-Natural Sciences 170 with a grade of at least C- and Curriculum and Instruction 651S.

### **UTS 675. Student Teaching for Secondary and Middle Grades.**

Closely supervised field coursework in a cooperating school. Experience includes carrying out the duties of a secondary or middle grades teacher. Twenty hours of fieldwork a week for one semester. Offered on the pass/fail basis only. Prerequisite: A University grade point average of at least 2.50, approval of the preliminary portfolio by the College of Natural Sciences UTeach Program, consent of the UTeach adviser in the College of Natural Sciences, and concurrent enrollment in UTeach-Natural Sciences 170.

### **UTS 175C. Computer Science Pathways.**

Restricted to students in the UTeach-Natural Sciences program. Prepare for the subjects of computer science certification exams that are not covered by other computer science courses. Review existing high school computer science curriculum. Create or find a computational thinking exercise in order to lead the class through the activity. One lecture hour a week for one semester.

## **Graduate Courses**

### **UTS 180, 280, 380, 680, 980. Topics in Teaching Math and Science.**

In-depth investigation of topics in math or science as related to teaching at a secondary level. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser or the department chair.

## **Professional Courses**

## **Visual Art Studies Courses**

### **Visual Art Studies: VAS**

#### **Lower-Division Courses**

#### **Upper-Division Courses**

### **VAS 320. Exploring Objects, Spaces, and Meaning.**

Open to all students. Focuses on a broad range of historical and contemporary works, artifacts, and environments, and their implications for understanding imagery and objects in visual and material culture. Three lecture hours a week for one semester. May not be repeated for credit. Offered on the letter-grade basis only.

### **VAS 321C. Children's Artistic Development I.**

Examination of how arts based learning strategies can be used to promote inquiry into the world around us. One lecture hour and three laboratory hours a week for one semester. Visual Art Studies 321C and 121D may not both be counted. Offered on the letter-grade basis only.

### **VAS 322C. Children's Artistic Development II.**

Advanced examination of how arts based learning strategies can be used to promote inquiry into the world around us. One lecture hour and three laboratory hours a week for one semester. Visual Art Studies 322C and 122D may not both be counted. Offered on the letter-grade basis only.

### **VAS 330. Introduction to Visual Art Studies.**

An introduction to visual art studies: philosophy, current trends, instructional methods, evaluation, advocacy, and careers in art education, museum education, and cultural or social educational settings. Three lecture hours a week for one semester. Observation required outside of class hours. Offered on the letter-grade basis only. Prerequisite: Studio Art 311C and 312C with a grade of at least C in each (or 301C and 302C with a grade of at least C in each).

### **VAS 341C. Learners and Instructional Sites for Visual Art Studies.**

Restricted to visual art studies majors. Instructional procedures, observations, and evaluation of early childhood through grade twelve classroom and community-based art instruction. Six laboratory hours a week for one semester. Field observation required. Visual Art Studies 341C and 141D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Credit with a grade of at least B or registration for Visual Art Studies 330.

### **VAS 351C. Art Materials, Techniques, and Processes.**

Restricted to visual art studies majors. Exploration and application of basic materials, techniques, and processes in art production used in early childhood through grade twelve classroom and community-based art instruction. Six laboratory hours a week for one semester. Visual Art Studies 351C and 151D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Visual Art Studies 330 with a grade of at least B.

### **VAS 361C. Criticism and Conversation about Art.**

Restricted to visual art studies majors. Individual and professional evaluations of visual imagery, artifacts, and artistic production in a variety of settings. Six laboratory hours a week for one semester. Visual Art Studies 361C and 161D may not both be counted. Offered on the letter-grade basis only. Prerequisite: Visual Art Studies 351C with a grade of at least B.

### **VAS 371C. Topics in Visual Art Studies.**

Restricted to studio art and visual art studies majors. Lectures on selected subjects in visual art. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Upper-division standing.

### **VAS 376. Independent Study: Visual Art Studies.**

Individual projects to be completed under faculty supervision. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing in the Department of Art and Art History and consent of instructor.

### **VAS 379S. Advanced Topics in Visual Art Studies: Lecture.**

Restricted to studio art and visual art studies majors. Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

## **Graduate Courses**

## **Professional Courses**

# **Women's and Gender Studies Courses**

## **Women's and Gender Studies: WGS**

### **Lower-Division Courses**

#### **WGS 301. Introductory Topics in Women's and Gender Studies.**

Three lecture hours a week for one semester, or as required for the topic. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

**Topic 2: Introduction to Child Psychology.** General introduction to physical, social, and cognitive development from conception onward. Prerequisite: Psychology 301 with a grade of at least C.

**Topic 3: Introduction to Latinx Body Art.** Same as Mexican American Studies 318D. Examine the social, historical, economic, and commercial contexts influencing the production, display, and circulation of Latinx body art. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 318D, 319 (Topic: Intro to Latinx Body Art), Women's and Gender Studies 301 (Topic: Intro to Latinx Body Art), 301 (Topic 3).

**Topic 4: Family Relationships.** Same as Human Development and Family Sciences 304. The process of family interaction over the life cycle. Application of research findings to the understanding of relationships. Only one of the following may be counted: Human Development and Family Sciences 304, 304H, Women's and Gender Studies 301 (Topic 4).

**Topic 6: Ethnicity and Gender: La Chicana.** Same as Mexican American Studies 311 and Sociology 308D. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 311, 319 (Topic 1), Sociology 308 (Topic: Ethnicity and Gender: La Chicana), 308D, Women's and Gender Studies 301 (Topic 6).

**Topic 7: Women's Reproductive Health for Nonscience Majors.** Same as Nursing 307 (Topic 1) and Sociology 310S. Overview of contemporary women's reproductive health issues, with emphasis on historical, physiological, psychosocial, and cultural influences that affect the reproductive health of women during adolescence, the childbearing years, and midlife. Three lecture hours a week for one semester. Only one of the following may be counted: Nursing 307 (Topic 1), Sociology 308 (Topic 2), 310S, Women's and Gender Studies 301 (Topic 7). Additional prerequisite: One year of high school biology, or Biology 301L or 309D.

**Topic 8: Performing Blackness.** Same as African and African Diaspora Studies 315D and American Studies 315M. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315D, 317F (Topic: Performing Blackness), American Studies 315 (Topic: Performing Blackness), 315M, Theatre and Dance 311T (Topic: Performing Blackness), Women's and Gender Studies 301 (Topic: Performing Blackness), 301 (Topic 8).

**Topic 11: United States Women, Sexuality, and Gender to 1865.** Same as History 317L (Topic 5). History 317L (Topic 5) and Women's and Gender Studies 301 (Topic 11) may not both be counted.

**Topic 12: Gay and Lesbian Literature and Culture.** Same as English 314V (Topic 4: Gay and Lesbian Literature and Culture). American writing by gay, lesbian, bisexual, transgender, or queer authors and/or with gay, lesbian, bisexual, transgender, or queer themes. English 314V (Topic 4) and Women's and Gender Studies 301 (Topic 12) may not both be counted.

**Topic 13: Mexican American Women, 1910-Present.** Same as History 317L (Topic 12) and Mexican American Studies 319 (Topic 4). Examines the history of Mexican and Mexican American women in the

United States from the twentieth century to the present. Only one of the following may be counted: History 317L (Topic: Mexican American Women, 1910-Present), 317L (Topic 12), Mexican American Studies 319 (Topic: Mexican American Women, 1910-Present), 319 (Topic 4), Women's and Gender Studies 301 (Topic: Mexican American Women, 1910-Present), 301 (Topic 13).

**Topic 14: Performance, Feminism, and Social Change.** Same as African and African Diaspora Studies 311C. Exploration of the ways that engaged performance and feminist practice generate space for social change, including the basic principle that social transformation requires individual awareness, and that awareness necessitates a rigorous examination of race, gender, class, and sexuality. Only one of the following may be counted: African and African Diaspora Studies 311C, 317F (Topic: Performance, Feminism, and Social Change), Women's and Gender Studies 301 (Topic: Performance, Feminism, and Social Change), 301 (Topic 14).

**Topic 16: Introduction to Black Women's Studies.** Same as African and African Diaspora Studies 315P. Interdisciplinary examination of the complexities of black womanhood in America through an investigation of history, identity, popular culture, and black feminism/womanism, as well as social and political activism. Three lecture hours a week for one semester. Only one of the following can be counted: African and African Diaspora Studies 315P, 317D (Topic 5), Women's and Gender Studies 301 (Topic 16).

**Topic 17: Black Queer Art Worlds.** Same as African and African Diaspora Studies 315Q and Anthropology 310L (Topic 6). Exploration of over two decades of work produced by and about black queer subjects throughout the circum-Atlantic world. Provides an introduction to various artists and intellectuals of the black queer diaspora, as well as an examination of the viability of black queer aesthetic practice as a form of theorizing. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315Q, 317E (Topic 1), Anthropology 310L (Topic 6), Women's and Gender Studies 301 (Topic 17).

**Topic 18: Religion and Gender in America.** Same as Sociology 308F. Examines the complex relationship between religious involvement and gender and sexuality in American society with a focus on the historic relationship between religious engagement and women's movements as well as more contemporary issues. Exploration of several major religious traditions in the United States today, including Evangelical Christianity, Catholicism, and Judaism. Examination of smaller religious groups and their attempt to confront the complex and contradictory relationship between gender roles and belief. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Religion and Gender in America), 308F, Women's and Gender Studies 301 (Topic 18).

**Topic 19: Diversity in American Families.** Same as Sociology 307F. Examination of the diversity of American families and current debates on family life from a sociological perspective with an emphasis on how diverse family forms came to exist and what these changes mean for adults and children in contemporary society. Study of recent trends in several aspects of family life, including dating and courtship, cohabitation, marriage, divorce, parenthood, family structure, and work-family balance. Overview of theoretical perspectives on family life with a focus on gender, race/ethnicity, and sexuality. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Diversity in American Families), Sociology 307F, 308 (Topic: Diversity in American Families), Women's and Gender Studies 301 (Topic: Diversity in American Families), 301 (Topic 19).

**Topic 20: Fertility and Reproduction.** Same as Sociology 307K. Explores the when, why, how, and with whom Americans bear children, and how the United States compares to other developed and developing countries in the world. Subjects include infertility and its treatments, the ethics of surrogacy and international adoption,

voluntary childlessness, the rapid rise of nonmarital childbearing in the United States and other countries, the politics of childbirth, the risks of maternal morbidity and mortality in developed and developing countries, and the declining populations and rapid aging of rich countries including Japan, Italy, and Spain where many women have stopped having children. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 307K, 308 (Topic: Fertility and Reproduction), Women's and Gender Studies 301 (Topic: Fertility and Reproduction), 301 (Topic 20).

**Topic 21: Gender, Race, and Class in American Society.** Same as Sociology 307L. Use of the sociological perspective to analyze how the structure of American society, individual life, and group life chances are shaped by broader structures of privilege and disadvantage based on gender, race, and class. Examination of these in institutional arenas such as work, the family, education, health, the criminal justice system, sexuality, popular culture, and more. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 307L, 308 (Topic: Gender, Race, and Class in American Society), Women's and Gender Studies 301 (Topic: Gender, Race, and Class in American Society), 301 (Topic 21).

**Topic 22: Race, Ethnicity, and Gender in Demography.** Same as Sociology 308E. Introduction to the patterns, trends and debates on race, ethnicity, and gender in demography. Study of the social aspect of demography and the relationship of demographic phenomena relative to racial, ethnic, and gender populations. Specific areas will include the following: conceptual/measurement issues; migration and population dynamics; health and morality; and family and fertility. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Race, Ethnicity, and Gender in Demography), 308E, Women's and Gender Studies 301 (Topic 22).

**Topic 23: Romantic Relationships and Family Formation.** Same as Sociology 308J. Examination of romantic relationships and family formation from a cultural framework. Subjects include: historical transformations of romance; socioeconomic perspectives on sexual relationships and family formation; the impact of demographic transitions on the emergence of cohabitation as a relationship form; the economics undergirding relationship decision making; common narratives, practices, and gender differences about entry into marriage in the West; and population-level implications of contemporary patterns. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 308 (Topic: Romantic Relationships and Family Formation), 308J, Women's and Gender Studies 301 (Topic 23).

**Topic 24: Race, Immigration, and Family.** Same as Asian American Studies 310 (Topic 5) and American Studies 315 (Topic 3).

Introduction to family systems in the United States in a post-WWII framework with a central focus on Asian Americans. Students will investigate how gender, race, and ethnicity intersect and inform our understanding of the institution of the family. Only one of the following may be counted: American Studies 315 (Topic: Alternative Family Systems), 315 (Topic 3), Asian American Studies 310 (Topic: Alternative Family Systems), 310 (Topic 5), Women's and Gender Studies 301 (Topic: Alternative Family Systems), 301 (Topic 24).

**Topic 25: The Revolution Will Be Dramatized.** Same as African and African Diaspora Studies 315E, American Studies 315K, and Theatre and Dance 305S (Topic 2). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 315E, 317F (Topic: The Revolution Will Be Dramatized), American Studies 315 (Topic: The Revolution Will Be Dramatized), 315K, Theatre and Dance 305S (Topic 2), 311T (Topic: The Revolution Will Be Dramatized), Women's and Gender Studies 301 (Topic: The Revolution Will Be Dramatized), 301 (Topic 25).

**Topic 26: Toni Morrison and August Wilson.** Same as African and African Diaspora Studies 315F, American Studies 315L, and Theatre and Dance 305S (Topic 3). Three lecture hours a week for one

semester. Only one of the following may be counted: African and African Diaspora Studies 315F, 317F (Topic: Toni Morrison and August Wilson), American Studies 315 (Topic: Toni Morrison and August Wilson), 315L, Theatre and Dance 305S (Topic 3), 311T (Topic: Toni Morrison and August Wilson), Women's and Gender Studies 301 (Topic: Toni Morrison and August Wilson), 301 (Topic 26).

**Topic 27: Women, Gender, Literature, and Culture.** Same as English 314V (Topic 6). An introduction to literary analysis focusing on women's and gender studies. English 314V (Topic 6) and Women's and Gender Studies 301 (Topic 27) may not both be counted.

**Topic 28: History of Human Sexuality.** Same as History 306N (Topic 15). The history of human sexuality is approached from four angles: sexual behaviors; sexual consequences; sexual regulation, and sexual science. Only one of the following may be counted: History 306N (Topic: History of Human Sexuality), 306N (Topic 15), Women's and Gender Studies 301 (Topic: History of Human Sexuality), 301 (Topic 28).

**Topic 29: Latina Performance: From Celia to Selena.** Same as Mexican American Studies 315. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 315, 319 (Topic: Latina Performnc: Celia-Selena), Women's and Gender Studies 301 (Topic: Latina Performnc: Celia-Selena), 301 (Topic 29).

**Topic 30: Latina and Latino Media and Popular Culture.** Same as American Studies 315N and Mexican American Studies 318C. Explore Latina/o media and popular culture from 1950 to the present. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 315 (Topic: Latina/o Med/Pop Cul 1950-Pres), 315N, Mexican American Studies 318C, 319 (Topic: Latina/o Med/Pop Cul 1950-Pres), Women's and Gender Studies 301 (Topic: Latina/o Med/Pop Cul 1950-Pres), 301 (Topic 30).

**Topic 31: Introduction to Gender and Sexuality.** Same as Human Development and Family Sciences 306. Explore social, emotional, cognitive, and physical aspects of gender and sexuality within the contexts of individual human development, families, and cultures. Three lecture hours a week for one semester.

**Topic 32: Rights in Modern America.** Same as African and African Diaspora Studies 316C, American Studies 315J, and History 317L (Topic 10). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 316C, 317D (Topic: Rights in Modern America), American Studies 315 (Topic: Rights in Modern America), 315J, History 317L (Topic: Rights in Modern America), 317L (Topic 10), Women's and Gender Studies 301 (Topic: Rights in Modern America), 301 (Topic 32).

**Topic 34: Introduction to African American Women's History.** Same as African and African Diaspora Studies 315I and History 317L (Topic 20). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 310 (Topic: Intro Afr Amer Women's Hist), 315I, History 317L (Topic: Intro Afr Amer Women's Hist), 317L (Topic 20), Women's and Gender Studies 301 (Topic 34).

### **WGS 303. Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies.**

Explore concepts of gender and sexuality, race, class, religion, and nation; as well as skills in theory, history, and research methods relevant to LGBTQ studies. Survey the making of modern understandings of sexual and LGBTQ identities in the last one hundred years and the implications of this history for broader understandings of gender and sexuality. Three lecture hours a week for one semester. Women's and Gender Studies 301 (Topic: Introduction to LGBTQ Studies) and 303 may not both be counted.

### **WGS 305. Introduction to Women's and Gender Studies.**

Introduction to the role of gender identity and representation in key social institutions and processes, including borders, displacements,

and diasporas. Analysis of the social narratives of gender, race, and sexuality. Three lecture hours a week for one semester. Women's and Gender Studies 301 (Topic: Introduction to Women's and Gender Studies) and 305 may not both be counted.

### **WGS 313. Child Development.**

Same as Human Development and Family Sciences 313. Motor, language, cognitive, social, and emotional development in the family context. Three lecture hours a week for one semester. Only one of the following may be counted: Human Development and Family Sciences 313, 313H, 313. Prerequisite: Credit or registration for Human Development and Family Sciences 113L.

### **WGS 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Women's and Gender Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Women's and Gender Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

## **Upper-Division Courses**

### **WGS 322. Introduction to Women's and Gender Studies in the Social Sciences.**

Multidisciplinary topics using approaches from the social sciences to examine gender constructs and male/female roles. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

### **WGS 322C. Sociology of Gender.**

Same as Sociology 333K. Inequality between the sexes; men's and women's changing roles in society. Three lecture hours a week for one semester. Only one of the following can be counted: Sociology 333K, Women's and Gender Studies 322 (Topic 1), 322C. Prerequisite: Upper-division standing.

### **WGS 322D. Population and Society.**

Same as Sociology 369K. The study of populations, including their growth, age structure, and patterns of fertility, mortality, and migration; the social causes and consequences of these phenomena. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 369K, Women's and Gender Studies 322 (Topic: Population and Society), 322 (Topic 2), 322D. Prerequisite: Upper-division standing.

### **WGS 322E. Sociology of Masculinities.**

Same as Sociology 322M. Sociological examination of the most important debates and discussions about men's experiences of masculinity in contemporary patriarchal societies. Exploration of social and individual meanings of masculinity, the dominant paradigms of masculinity that are taken as the norm, and the problems, contradictions, and paradoxes men experience in modern society. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 322M, Women's and Gender Studies 322 (Topic 3), 322E. Prerequisite: Upper-division standing, three hours of coursework in sociology, and three hours of coursework in women's and gender studies.

### **WGS 322F. The Sociology of Race and Work.**

Same as Asian American Studies 330E and Sociology 321R. Critical examination of work in the United States over the twentieth and twenty-first centuries through a gendered, Asian American lens, using

a comparative race perspective. Subjects include the sociological examination of concepts such as labor markets, globalization, care work, and gender/racial segregation in the workplace along with the ways race and gender shape how and where individuals are fitted into the workplace, how skills are evaluated, and how labor markets emerge. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 330 (Topic 4), 330E, Sociology 321R, Women's and Gender Studies 322 (Topic 6), 322F. Prerequisite: Upper-division standing.

### **WGS 322G. Race and the Digital.**

Same as African and African Diaspora Studies 322D and Sociology 322D. Review of theoretical developments in the sociological study of "race," including an examination of processes of racialization and cultural texts, in order to better understand the ways in which identities are socially produced. Attention will be placed on forms of popular culture, black cultural production, and political action to question how such practices are shaped by migrations within the African diaspora. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 322D, Sociology 322D, Women's and Gender Studies 322 (Topic 7), 322G. Prerequisite: Upper-division standing.

### **WGS 322J. Race, Gender, and Surveillance.**

Same as African and African Diaspora Studies 360D, American Studies 321 (Topic 6), and Sociology 322V. Overview of theories in the sociology of social control, with a focus on risk, power, ethics, and surveillance. Examines historical transformations in social control and the distributions of power in the United States and global contexts, with attention to race, gender, and class. Subjects include: the transatlantic slave trade; prisons and punishment; the gaze, voyeurism, and reality television watching; the Internet; travel and state borders; privacy; and biometrics and the body. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360D, 372C (Topic 12), American Studies 321 (Topic 6), Sociology 322V, Women's and Gender Studies 322 (Topic 8), 322J. Prerequisite: Upper-division standing.

### **WGS 322K. Sex and Violence in Popular Culture.**

Same as Sociology 322P. Overview of the cultural framing of sex and violence through realistic and hyper-realistic representations of sex, love, violence, and war in popular culture. Examination of the ethical implications, including the ways in which these representations rely on and further social inequalities and the sociological concepts, methods, and theoretical approaches to understanding sex and violence in popular culture. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 321K (Topic: Sex & Violence in Pop Culture), 322P, Women's and Gender Studies 322 (Topic 10), 322K, 345 (Topic: Sex & Violence in Pop Culture). Prerequisite: Upper-division standing.

### **WGS 323. Introduction to Women's and Gender Studies in the Natural Sciences.**

Examination of gendered constructs such as gender and sexual development, male and female differences and similarities, and feminist or alternative scientific epistemologies using approaches from the natural sciences. Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **WGS 323C. Primate Social Behavior.**

Same as Anthropology 346L. Studies primate behavior and why primates do what they do, including basic theoretical principles and the models used to explain primate behavior. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 346L,

Women's and Gender Studies 323 (Topic: Primate Social Behavior), 323C. Prerequisite: Anthropology 301.

### **WGS 323D. Sex and Human Nature.**

Same as Anthropology 348J. Provides an introduction to the scientific study of sexual behavior, mate choice, and reproduction in humans from the perspective of evolutionary biology; examines a wide range of genetic, ecological, social, physiological, and behavioral aspects of human sexuality. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 348J, 348K (Topic 12), Biology 337 (Topic: Sex and Human Nature), Women's and Gender Studies 323 (Topic: Sex and Human Nature), 323D. Prerequisite: Anthropology 301.

### **WGS 324. Introduction to Women's and Gender Studies in Communication.**

Multidisciplinary course examining issues of women, gender, and sexuality in media industries, texts, and audiences. Three lecture hours a week for one semester, or as required for the topic. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **WGS 324C. Gender and Media Culture.**

Same as Radio-Television-Film 328C. Critical analysis of media and its interrelation with issues of gender. Three lecture hours and one two-and-one-half hour film screening a week for one semester. Only one of the following may be counted: Radio-Television-Film 325C, 328C, 359 (Topic: Women and Media Culture), 359S (Topic 2), Women's and Gender Studies 324 (Topic: Gender and Media Culture), 324C. Prerequisite: Upper-division standing.

### **WGS 324D. Race, Class, and Gender in American Television.**

Same as Radio-Television-Film 335 (Topic 2). Surveys history and contemporary debates regarding the construction of race, class, gender and sexual orientation in U.S. television from the late 1940s through the present day and related issues of television aesthetics, production practices, audiences, and advocacy. Three lecture hours a week for one semester, with two-and-one-half-hours of film screening a week. Only one of the following may be counted: American Studies 321 (Topic: Race/Class/Gender in Amer TV), Mexican American Studies 374 (Topic: Race/Class/Gender in Amer TV), Radio-Television-Film 335 (Topic 2) and 335 (Topic: Race/Class/Gender in Amer TV), Women's and Gender Studies 324 (Topic: Race, Class and Gender in American Television), 324D. Prerequisite: Upper division standing.

### **WGS 324E. Gender and Fan Culture.**

Same as Radio-Television-Film 359S (Topic 12). Three lecture hours and one two-and-one-half-hour film screening a week for one semester. Only one of the following may be counted: Radio-Television-Film 359S (Topic: Gender and Fan Culture), 359S (Topic 12), Women's and Gender Studies 324 (Topic: Gender and Fan Culture), 324E. Prerequisite: Upper-division standing.

### **WGS 324F. Gender, Race, and Sexuality in Sports Media.**

Same as Radio-Television-Film 359 (Topic 6). Three lecture hours and one two-and-one-half-hour film screening a week for one semester. Only one of the following may be counted: Radio-Television-Film 359 (Topic 6), 365 (Topic: Gender/Race/Sexlty Sport Media), Women's and Gender Studies 324 (Topic: Gender/Race/Sexlty Sport Media), 324F. Prerequisite: Upper-division standing.

### **WGS 324G. Gender and the News.**

Same as Journalism 348D. Historical and contemporary exploration of gender and the news. Examination of the role of marginalized gender groups in producing news and the construction of gender within news texts. Three lecture hours a week for one semester. Only one of the

following may be counted: Journalism 348D, Women's and Gender Studies 324 (Topic 4), 324G. Prerequisite: For journalism majors, Journalism 310F with a grade of at least B-; for others, six semester hours of upper-division coursework in women's and gender studies.

### **WGS 324J. Stardom and Celebrity Culture.**

Same as Radio-Television-Film 331K (Topic 7). Survey of the construction and meanings of stardom in film, television, and new media. Subjects include links with the media industries; stardom and race, class, gender, and sexuality; and new permutations of celebrity culture. Three lecture hours and one two-and-a-half hour film screening a week for one semester. Only one of the following may be counted: Radio-Television-Film 331K (Topic: Critical Studies of Film and Television Stardom), 331K (Topic 6), 331K (Topic 7), Women's and Gender Studies 324 (Topic: Critical Stds Film/TV Stardom), 324J. Prerequisite: Upper-division standing.

### **WGS 125. Special Topics in Women's and Gender Studies.**

Analysis of special topics in women's and gender studies through reading, discussion, and lectures. One lecture hour a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic.

### **WGS 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Women's and Gender Studies.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Center for Women's and Gender Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **WGS 333D. Introduction to Developmental Psychology.**

Same as Psychology 333D. Physical, social, and cognitive development in humans. Three lecture hours a week for one semester. Only one of the following may be counted: Psychology 304, 333D, Women's and Gender Studies 333D, 345 (Topic 6). Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **WGS 333R. Social Development in Children.**

Same as Psychology 333R. Development of social behavior (for example, sex typing and aggression) and social relationships. Three lecture hours a week for one semester. Only one of the following may be counted: Psychology 333R, Women's and Gender Studies 333R, 345 (Topic 19). Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 or 420M with a grade of at least C in each; for others, upper-division standing, Psychology 301 with a grade of at least C, and one of the following with a grade of at least C: African and African Diaspora Studies 302M, Biomedical Engineering 335, Civil Engineering 311S, Economics 329, Educational Psychology 308, 371, Electrical Engineering 351K, Government 350K, Mathematics 316, 362K, Mechanical Engineering 335, Psychology 317, 317L, Sociology 317L, Social Work 318, Statistics 309, Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 318, 321, 328M.

### **WGS 335. Topics in Lesbian, Gay, Bisexual, Transgender, and Queer Studies.**

The perspectives, experiences, and cultural contributions of lesbian, gay, bisexual, transgender, and queer people, examined from different disciplinary and/or interdisciplinary perspectives according to the topic. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary by topic.

**Topic 1: Confronting LGBTQ Oppression.** Serves two primary functions: to increase participant's knowledge on the issues facing the Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) community; and to learn facilitation skills in order to talk about these issues on campus. Enrolled students will become peer educators in a team, and will give workshops across campus around LGBTQ issues during the spring semester. Only one of the following may be counted: Social Work 360K (Topic: Confronting LGBTQ Oppression), Women's and Gender Studies 335 (Topic 1), 345 (Topic: Confronting LGBTQ Oppression). Additional prerequisite: Consent of instructor.

**Topic 2: Facilitating Dialogues on LGBTQ Oppression: Peers for Pride in Action.** Restricted to students in the Peers for Pride program. The second part of the Peers for Pride facilitation program; serves as a way for students in the program to use the information and skills learned in "Confronting LGBTQ Oppression." Students will continue to fine-tune their facilitation skills and continue learning about LGBTQ people on the UT campus and beyond. Only one of the following may be counted: Social Work 360K (Topic: Facilitating Dialogues on LGBTQ Oppression: Peers for Pride in Action), Women's and Gender Studies 335 (Topic 2), 345 (Topic: Facilitating Dialogues on LGBTQ Oppression: Peers for Pride in Action). Additional prerequisite: Consent of instructor.

**Topic 3: African Queer Studies.** Same as African and African Diaspora Studies 340N. Examines the development of African queer studies as the interdisciplinary study of sexuality on the African continent, and its impact on the academic and activist realm. Focus on intersectional feminist and queer theory and how this field offers tools that can be used to rethink issues of oppression and domination in relationship to race, nation, sex, gender, and sexuality on the African continent. Of particular interest will be LGBTQ activism and the ways in which queer Africans engage and shape their sexuality, and create forms of belonging in their countries and their communities. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340N, 372G (Topic 7), Women's and Gender Studies 335 (Topic 3). Additional prerequisite: Upper-division standing.

**Topic 4: Sexual Deviance in the Twentieth-Century United States.** Same as American Studies 370 (Topic 50). Examines the ways that Americans have created and maintained hierarchies of power by casting certain people and sexual behaviors as unnatural and immoral since the turn of the twentieth century. Only one of the following may be counted: American Studies 370 (Topic: Sexual Deviance in the Twentieth-Century US), 370 (Topic 50), Women's and Gender Studies 335 (Topic: Sexual Deviance in the Twentieth-Century US), 335 (Topic 4). Additional prerequisite: Upper-division standing.

**Topic 6: Gender Issues in Contemporary Latin American Cinema.** Same as Latin American Studies 370S (Topic 24) and Spanish 350C. Studies Latin American cinema as a device of gender system formation and reinforcement, and as criticism of patriarchal hegemony; discusses questions related to sexuality depicted in Latin American films. Subjects covered include: maternity, prostitution, machismo, children's sexuality, homosexuality, heterosexuality, and gender violence in films from the 1930s to present. Conducted in Spanish. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 24), Spanish 350 (Topic: Gender in Contemporary Latin American Cinema),

350C, 350K (Topic 1), Women's and Gender Studies 335 (Topic 6), 340 (Topic: Gender in Contemporary Latin American Cinema). Additional prerequisite: Spanish 327C, (or 327), (or 327G), and three hours of upper-division coursework in either Spanish or Spanish Civilization.

**Topic 7: Queer Study in Low Culture.** Same as American Studies 370 (Topic 51). Examines representations of sexual and gender non-conformity in popular culture since the mid-twentieth century in the United States. Only one of the following may be counted: American Studies 370 (Topic: Queer Study in Low Culture), 370 (Topic 51), Women's and Gender Studies 335 (Topic: Queer Study in Low Culture), 335 (Topic 7). Additional prerequisite: Upper-division standing.

**Topic 9: Movements for Sexual and Reproductive Justice.** Same as American Studies 370 (Topic 52). Charts the historical development of various struggles for sexual and reproductive justice in the United States since the nineteenth century. Only one of the following may be counted: American Studies 370 (Topic: Movements for Sexual and Reproductive Justice), 370 (Topic 52), Women's and Gender Studies 335 (Topic: Movements for Sexual and Reproductive Justice), 335 (Topic 9).

**Topic 10: HIV and AIDS Activism and the Healing Arts.** Same as African and African Diaspora Studies 350J and Anthropology 324J. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350J, 374E (Topic: HIV/AIDS Activism/Heal Arts), Anthropology 324J, 324L (Topic: HIV/AIDS Activism/Heal Arts), Women's and Gender Studies 335 (Topic: HIV/AIDS Activism/Heal Arts), 335 (Topic 10). Additional prerequisite: Upper-division standing.

**Topic 11: Beyonce Feminism and Rihanna Womanism.** Same as African and African Diaspora Studies 330. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 372C (Topic: Beyonce Feminism/Rihanna Womanism), 330, Women's and Gender Studies 335 (Topic: Beyonce Feminism/Rihanna Womanism), 335 (Topic 11). Additional prerequisite: Upper-division standing.

**Topic 12: Transgender Feminisms.** Women's and Gender Studies 335 (Topic: Transgender Feminisms) and 335 (Topic 12) may not both be counted.

**Topic 13: Queer Art and Activism.** Women's and Gender Studies 335 (Topic: Queer Art and Activism) and 335 (Topic 13) may not both be counted.

**Topic 14: Sexuality in Global Perspective.** Same as Anthropology 324V and Latin American Studies 324G. Explore the ways in which sexuality intersects with money, intimacy, power, and labor in the context of global economic processes. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Sexuality in Global Persp), 324V, Latin American Studies 324G, Women's and Gender Studies 335 (Topic: Sexuality in Global Persp), 335 (Topic 14). Additional prerequisite: Upper-division standing.

**Topic 15: Queer Migrations.** Same as Mexican American Studies 335M. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 335M, 374 (Topic: Queer Migrations), Women's and Gender Studies 335 (Topic: Queer Migrations), 335 (Topic 15). Additional prerequisite: Upper-division standing.

**Topic 17: Disability, Race, and Sexuality in Literature and Culture.** Same as English 343D and Mexican American Studies 337G. Three lecture hours a week for one semester. Only one of the following may be counted: English 343D, 376M (Topic: Deviant Bodies:Disabl/Race/Sex), Mexican American Studies 337G, 374 (Topic: Deviant Bodies:Disabl/Race/Sex), Women's and Gender Studies 335 (Topic: Deviant Bodies:Disabl/Race/Sex), 335 (Topic 17). Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**Topic 18: Twentieth-Century United States Lesbian and Gay History.** Same as American Studies 370 (Topic 49) and History 365G (Topic 10). Examines classic texts and recent and varied writings on LGBT history, focused on experiences, ideas, and conflicts that have shaped modern LGBT identities. Only one of the following may be counted: American Studies 370 (Topic: United States Lesbian and Gay History, Twentieth Century), 370 (Topic 49), History 365G (Topic: United States Lesbian and Gay History, Twentieth Century), 365G (Topic 10), Women's and Gender Studies 335 (Topic 18), 340 (Topic: United States Lesbian and Gay History, Twentieth Century).

**Topic 20: Sex and Sexuality in the Muslim World.** Same as Islamic Studies 372 (Topic 25), Religious Studies 358J, and Sociology 342S. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 372 (Topic: Sex/Sexuality Muslim World), 372 (Topic 25), Religious Studies 358 (Topic: Sex/Sexuality Muslim World), 358J, Sociology 321K (Topic: Sex/Sexuality Muslim World), 342S, Women's and Gender Studies 335 (Topic: Sex/Sexuality Muslim World), 335 (Topic 20). Additional prerequisite: Upper-division standing.

**Topic 22: Queer Visual Culture.** Women's and Gender Studies 335 (Topic 22) and 345 (Topic: Queer Visual Culture) may not both be counted.

**Topic 24: United States Masculinities.** Same as American Studies 370 (Topic 68). Only one of the following may be counted: American Studies 370 (Topic: US Masculinities), 370 (Topic 68), Women's and Gender Studies 335 (Topic: US Masculinities), 335 (Topic 24).

### **WGS 335C. Queer Media Studies.**

Same as Radio-Television-Film 359S (Topic 5). Critical analysis of queer media. Read key queer (media) theory texts and explore dominant strategies used by the media industries, as well as those utilized by LGBTQ+ independents/subcultures, paying close attention to contested discourses of identity, politics, activism and desire. Explore historical shifts in the representation of LGBTQ+ individuals. Three lecture hours and one two-and-one-half-hour film screening a week for one semester. Only one of the following may be counted: Radio-Television-Film 359S (Topic: Queer Media Studies), 359S (Topic 5), 377H (Topic: Queer Media Studies), 377H (Topic 2), Women's and Gender Studies 324 (Topic: Queer Media Studies), 335 (Topic 16), 335C. Prerequisite: Upper division standing.

### **WGS 340. Cross-Cultural Topics in Women's and Gender Studies.**

Multidisciplinary course examining experiences and issues of gender in different cultures. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

**Topic 3: African American Family.** Same as African and African Diaspora Studies 321K and Social Work 360K (Topic 2). Overview of historical and contemporary issues facing African American families and children. Social service delivery to African American families and communities is emphasized. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 321K, Social Work 360K (Topic 2), Women's and Gender Studies 340 (Topic 3).

**Topic 7: Black Women and the State.** Same as African and African Diaspora Studies 360E, Anthropology 324L (Topic 78), and Latin American Studies 324L (Topic 17). Surveys black women's experiences living with and confronting state oppression around the world. Takes an historical, social, and theoretical look at the roots of this oppression and inequality, and how black women have chosen to respond to it locally and globally. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 360E, 372F (Topic 11), 372F (Topic 12),

Anthropology 324L (Topic 78), Latin American Studies 324L (Topic 17), Women's and Gender Studies 340 (Topic 7), 340 (Topic 63). Additional prerequisite: Upper-division standing.

**Topic 9: Black Women in America.** Same as African and African Diaspora Studies 351G and History 350R (Topic 17). Uses primary sources, historical monographs, and essays to provide a chronological and thematic overview of the experiences of black women in America from their African roots to the circumstances they face in the present era. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351G, 374D (Topic 9), History 350R (Topic 17), Women's and Gender Studies 340 (Topic 9). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 10: Iranian Women Writers.** Same as Middle Eastern Languages and Cultures 321 (Topic 11) and Middle Eastern Studies 342 (Topic 11). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 11), Middle Eastern Studies 342 (Topic 11), WGS 340 (Topic 10). Additional prerequisite: Upper-division standing.

**Topic 11: Veiling in the Muslim World.** Same as Asian Studies 372F, Islamic Studies 372 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 22), and Religious Studies 358V. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 14), 372F, Islamic Studies 372 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 22), Religious Studies 358 (Topic 5), 358V, Women's and Gender Studies 340 (Topic 11). Additional prerequisite: Upper-division standing.

**Topic 13: Law and Society in Early Modern Europe.** Same as European Studies 346 (Topic 4) and History 350L (Topic 57). Research seminar on how historians have explored the significance of law, criminal and civil, in the lives of early modern Europeans. Topics include infanticide, fornication, drunkenness, theft, debt, slander, and family disputes. Only one of the following may be counted: European Studies 346 (Topic 4), History 350L (Topic 57), Women's and Gender Studies 340 (Topic 13).

**Topic 14: Self-Revelation in Women's Writing.** Same as African and African Diaspora Studies 330N, Comparative Literature 323 (Topic 4), and Middle Eastern Studies 342 (Topic 19). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330N, 372E (Topic 8), Comparative Literature 323 (Topic 4), Middle Eastern Studies 342 (Topic 19), Women's and Gender Studies 340 (Topic 14).

**Topic 18: Women and Gender in China.** Same as Asian Studies 372J and History 350L (Topic 46). Examine women and gender in China from imperial times to the present. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 21), 372J, History 350L (Topic 46), Women's and Gender Studies 340 (Topic 18). Additional prerequisite: Upper-division standing.

**Topic 19: Contemporary India.** Exploration of urban and rural inequality through classic and contemporary novels, ethnographies, and films that highlight gender relations.

**Topic 20: Violence in Contemporary Mexican Culture.** Same as Latin American Studies 370S (Topic 23) and Spanish 355F. Studies the representation of violence in contemporary literary and cultural production in Mexico in order to understand social, political, and cultural implications of current violence there. Taught in Spanish. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 370S (Topic 23), Spanish 355 (Topic 6), Spanish 355F, and Women's and Gender Studies 340 (Topic 20). Additional prerequisite: Spanish 327C (or 327G) and three hours of upper-division coursework in Spanish or Spanish Civilization.

**Topic 21: Minorities and the Media.** Discussion of issues concerning minority or nondominant groups in the United States. Survey of minority communication problems, including alienation;

fragmentation; media and Internet access; and criticism and feedback for minority groups based on racial/ethnic background, age, sex, disability, social or economic class, and sexual orientation. Only one of the following may be counted: Journalism 341H, 341J, 341M, Latin American Studies 322 (Topic 10), Mexican American Studies 374 (Topic 22), Urban Studies 354 (Topic: Minorities and the Media), Women's and Gender Studies 340 (Topic 21).

**Topic 22: Muslim Women: Past and Present I.** Same as Islamic Studies 372 (Topic 12) and Religious Studies 358M. Survey of the role of women in Islamic societies from the Middle Ages to the eighteenth century, with a glimpse into modern times. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 372 (Topic 12), Religious Studies 358 (Topic: Muslim Women: Past and Present I), 358 (Topic 12), 358M, Women's and Gender Studies 340 (Topic 22). Additional prerequisite: Upper-division standing.

**Topic 23: Muslim Women: Past and Present II.** Same as Islamic Studies 372 (Topic 13) and Religious Studies 358N. Survey of the role of women in the modern Muslim world, with a glimpse into historical developments within Islamic societies. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 372 (Topic 13), Religious Studies 358 (Topic 13), 358N, Women's and Gender Studies 340 (Topic 23). Additional prerequisite: Upper-division standing.

**Topic 25: Gender, Sexuality, and the Family in Indian Religions and Cultures.** Same as Anthropology 322O, Asian Studies 372K, and Religious Studies 341M. A comprehensive historical overview of gender issues as they are represented in the textual traditions of South Asia. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322O, 324L (Topic 40), Asian Studies 372 (Topic 25), 372K, Religious Studies 341 (Topic 3), 341M, Women's and Gender Studies 340 (Topic 25). Additional prerequisite: Upper-division standing.

**Topic 26: American Popular Culture, 1682-Present.** Same as American Studies 370 (Topic 35) and History 350R (Topic 19). Explores the evolution of American popular culture and its relationship to national consolidation, and at times, disunion, over the last 330 years.

**Topic 27: Islamic Law.** Same as Islamic Studies 340 (Topic 5), Middle Eastern Languages and Cultures 321 (Topic 19), Middle Eastern Studies 342 (Topic 27), and Religious Studies 358K. Designed to give students a foundation in the substantive teachings of the shariah, which comprises not only what we normally think of as law, but also ethics and etiquette. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic 5), Middle Eastern Languages and Cultures 321 (Topic: Islamic Law), 321 (Topic 19), Middle Eastern Studies 342 (Topic 27), Religious Studies 358 (Topic: Islamic Law), 358 (Topic 9), 358K, Women's and Gender Studies 340 (Topic 27). Additional prerequisite: Upper-division standing.

**Topic 29: Contemporary African American Women's Fiction.** Same as African and African Diaspora Studies 330M and English 343W. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330M, 372E (Topic 15), English 343W, 376M (Topic 7), Women's and Gender Studies 340 (Topic 29). Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**Topic 30: Goddesses in World Religions and Cultures.** Same as Anthropology 322J, Asian Studies 340F, and Religious Studies 373G. Historical and cross-cultural overview of the relationship between feminine and religious cultural expressions through comparative examinations and analyses of various goddess figures in world religions. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 322J, 324L (Topic: Goddesses in World Religions and Cultures), Asian Studies 340 (Topic 7), 340F, Religious Studies 373 (Topic 3), 373G, Women's and

Gender Studies 340 (Topic 30). Additional prerequisite: Upper-division standing.

**Topic 31: Writing Slavery.** Same as African and African Diaspora Studies 330P and English 323E. Explores the controversial rewriting of slavery in a presentist context by contemporary authors. Addresses challenges that archival limitations and revisionist writings about slavery pose for academic disciplines, literary instruction, and/or pedagogy. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330P, 374F (Topic 6), English 323E, 376M (Topic 3), Women's and Gender Studies 340 (Topic 31). Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**Topic 32: African Women's History.** Same as African and African Diaspora Studies 340E and History 364J. Major themes include politics, economics, religion, the family, culture, technology, feminism, colonialism, nationalism, and development in relation to the lives of African women. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340E, 372G (Topic: African Women's History), 372G (Topic 6), History 364G (Topic: African Women's History), 364G (Topic 5), 364J, Women's and Gender Studies 340 (Topic: African Women's History), 340 (Topic 32). Additional prerequisite: Upper-division standing.

**Topic 33: Antebellum Slavery.** Same as African and African Diaspora Studies 351K and History 365G (Topic 6). Examination of slavery at its maturity during the nineteenth century. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351K, 374D (Topic 16), History 365G (Topic 6), Women's and Gender Studies 340 (Topic 33). Additional prerequisite: Upper-division standing.

**Topic 34: Gender in North and West Africa.** Same as African and African Diaspora Studies 340S, Islamic Studies 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), and Middle Eastern Studies 342 (Topic 28). Examines gender discourses through North African and West African literary works by looking at the role(s) played by Islam and Christianity in the creation of the identities of African men and women. Includes discussion of the question of what gender is, and whether it is socially constructed. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340S, 372G (Topic 5), Islamic Studies 373 (Topic 8), Middle Eastern Languages and Cultures 321 (Topic 16), Middle Eastern Studies 342 (Topic 28), Women's and Gender Studies 340 (Topic 34). Additional prerequisite: Upper-division standing.

**Topic 35: South Asian Migration to the United States.** Same as Asian American Studies 325J, Asian Studies 372P, and History 365G (Topic 14). Examines the South Asian diaspora in the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 325 (Topic: South Asian Migration to the United States), 325 (Topic 9), 325J, Asian Studies 372 (Topic: South Asian Migration to the United States), 372 (Topic 43), 372P, History 365G (Topic: South Asian Migration to the United States), 365G (Topic 14), Women and Gender Studies 340 (Topic: South Asian Migration to the United States), 340 (Topic 35). Additional prerequisite: Upper-division standing.

**Topic 37: Tolerance in Dutch Culture.** Same as European Studies 347 (Topic 19) and German, Scandinavian, and Dutch Studies 361E. The historical roots of Dutch "tolerance" and how it plays a role in current Dutch culture and attitudes towards religious, gender, and sexual differences, as well as drug use, prostitution, and euthanasia. Exploration of the stereotypes and the actuality of these Dutch attitudes and policies from an international comparative perspective. Only one of the following may be counted: European Studies 347 (Topic: Dutch Culture: Too tolerant?), 347 (Topic 19), German, Scandinavian, and Dutch Studies 361E, Germanic Civilization 327E (Topic: Dutch Culture: Too tolerant?), Women's and Gender Studies

340 (Topic: Dutch Culture: Too tolerant?), 340 (Topic 37). Additional prerequisite: Upper-division standing.

**Topic 38: Afro-Caribbean Politics and Culture in Central America.** Same as African and African Diaspora Studies 326, Anthropology 324L (Topic 47), and Latin American Studies 337N. Exploration of black identity, political systems, and community activism in Central America and the Caribbean. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 326, 374E (Topic: Afro-Caribbean Politics and Culture in Central America), Anthropology 324L (Topic: Afro-Caribbean Politics and Culture in Central America), 324L (Topic: 47), Government 365N (Topic: Afro-Caribbean Politics and Culture in Central America), Latin American Studies 337M (Topic: Afro-Caribbean Politics and Culture in Central America), 337N, Women's and Gender Studies 340 (Topic: Afro-Caribbean Politics and Culture in Central America), 340 (Topic 38). Prerequisite: Upper-division standing.

**Topic 39: History of Southern Africa.** Same as African and African Diaspora Studies 340O and History 350L (Topic 72). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340O, 374C (Topic 4), History 350L (Topic 72), Women's and Gender Studies 340 (Topic 39). Additional prerequisite: Upper-division standing.

**Topic 40: Historical Imaging of Africa in Films.** Same as African and African Diaspora Studies 340L and History 350L (Topic 70). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340L, 374F (Topic 18), History 350L (Topic 70), Women's and Gender Studies 340 (Topic 40). Additional prerequisite: Upper-division standing.

**Topic 42: Apartheid: South African History.** Same as African and African Diaspora Studies 340D and History 364P. A study of the social, political, economic, and cultural history of South Africa to contextualize the rise of apartheid. Primarily focuses on the period since 1948 from the perspectives of women, children, and men of all racial backgrounds who lived through that particular period. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340D, 374C (Topic: Apartheid: South African History), 374C (Topic 6), History 364G (Topic: Apartheid: South African History), 364G (Topic 6), 364P, Women's and Gender Studies 340 (Topic: Apartheid: South African History), 340 (Topic 42). Additional prerequisite: Upper-division standing.

**Topic 43: Black Women and Dance.** Same as African and African Diaspora Studies 356E. Exploration of how black women express creativity in response to the violence of racism and sexism, and to envision new ways of being and moving in the world. Women's participation in ritual, concert, and social dance in North America, Haiti, Cuba, and Brazil will be studied through readings, viewings, and stagings. Only one of the following may be counted: African and African Diaspora Studies 356E, 372E (Topic: Black Women and Dance), Theatre and Dance 357T (Topic: Black Women and Dance), Women's and Gender Studies 340 (Topic: Black Women and Dance), 340 (Topic 43). Prerequisite: Upper-division standing.

**Topic 44: Gender Politics in the Islamic World.** Same as Islamic Studies 373 (Topic 11), Middle Eastern Studies 341 (Topic 7), Religious Studies 358G, and Sociology 336G. Study of the Islamic world and major sociological concepts such as gender, social organizations, culture, and politics. Examines how culture is mediated by politics, resulting in diverse interpretations of Islam and in different policies with respect to women's rights. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 373 (Topic 11), Middle Eastern Studies 341 (Topic 7), Religious Studies 358 (Topic 8), 358G, Sociology 336G, Women's and Gender Studies 340 (Topic 44). Additional prerequisite: Upper-division standing.

**Topic 45: Feminist Interventions in Borderlands History.** Same as American Studies 370 (Topic 45) and Mexican American Studies

374 (Topic 38). Provides an in-depth understanding of the social, economic, and spatial transformations of the United States/Mexico borderlands in the nineteenth and early twentieth centuries. Only one of the following may be counted: American Studies 370 (Topic: Feminist Interventions in Borderlands History), 370 (Topic 45), Mexican American Studies 374 (Topic: Feminist Interventions in Borderlands History), 374 (Topic 38), Women's and Gender Studies 340 (Topic: Feminist Interventions in Borderlands History), 340 (Topic 45).

**Topic 46: Africana Women's Art.** Same as African and African Diaspora Studies 335C and Art History 346L. Analysis of the diverse modes of presentation, mediums, definitions, and influences of Africana women artists in the diaspora. Designed to use critical theory and art history found in oral and written literatures, music, films, and other formal and informal documents. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335C, 374F (Topic: Africana Women's Art), 374F (Topic 9), Art History 346L, 373C (Topic: Africana Women's Art), Women's and Gender Studies 340 (Topic: Africana Women's Art), 340 (Topic 46). Additional prerequisite: Upper-division standing.

**Topic 47: Black Queer Literature and Film.** Same as African and African Diaspora Studies 330W and English 343M. Analyzes written works, films, and videos by and about lesbians, bisexual, transgender, and gay black people, with an emphasis on understanding the historical and theoretical construction of sexual and gender identities and sexual/cultural practices in black communities. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330W, 372E (Topic 13), English 343M, 376M (Topic 8), Women's and Gender Studies 340 (Topic 47). Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**Topic 48: Diaspora Visions.** Same as African and African Diaspora Studies 335G and Art History 345L. An exploration of border crossing by cultures and groups including Yorubas, Jews, Armenians, Tibetans, Hamish, Pakistanis, and Indians and the production of images by immigrants, exiles, and nomads in alien lands. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 335G, 374F (Topic 13), Art History 345L, 373D (Topic: Diaspora Visions), 374 (Topic: Diaspora Vision), Women's and Gender Studies 340 (Topic 48).

**Topic 49: Contemporary African Popular Culture.** Same as African and African Diaspora Studies 340 and Anthropology 322C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340, 372G (Topic: Contemporary African Popular Culture), Anthropology 322C, 324L (Topic: Contemporary African Popular Culture), Women's and Gender Studies 340 (Topic: Contemporary African Popular Culture), 340 (Topic 49). Additional prerequisite: Upper-division standing.

**Topic 50: Women and the Holocaust.** Same as Comparative Literature 323 (Topic 19), European Studies 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, and Jewish Studies 363 (Topic 11). Introduction to both the history of Jewish and German women during World War II and the Holocaust, and to women's narratives and self-representations of this period. Historical sources, memoirs, films, and interviews will be used as source material. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women's Narratives of the Holocaust and World War II), 323 (Topic 19), European Studies 346 (Topic: Women's Narratives of the Holocaust and World War II), 346 (Topic 10), German, Scandinavian, and Dutch Studies 341F, Germanic Civilization 323E (Topic: Women's Narratives of the Holocaust and World War II), Jewish Studies 363 (Topic 11), Women's and Gender Studies 340 (Topic: Women's Narratives of the Holocaust and

World War II), 340 (Topic 50). Additional prerequisite: Upper-division standing.

**Topic 51: Medieval Women Mystics.** Same as European Studies 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, and Religious Studies 357U. The life and writings of Saint Birgitta of Sweden, fourteenth-century visionary, religious reformer, and pilgrim, examined and compared with her predecessor Hildegard of Bingen (Germany), her successor Margery Kempe (England), as well as Margery's mentor, Julian of Norwich. Social and historical contexts for all four of these women mystics will be explored in depth. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic 18), German, Scandinavian, and Dutch Studies 361D, Germanic Civilization 327E (Topic 10), Religious Studies 357 (Topic 15), 357U, Scandinavian 373 (Topic 8), Women's and Gender Studies 340 (Topic 51). Additional prerequisite: Upper-division standing.

**Topic 52: Sex and Power in the African Diaspora.** Same as African and African Diaspora Studies 345F and Anthropology 324L (Topic 48). Exploration of various experiences and theories of sex, intimacy, and desire alongside intellectual and artistic engagements with power hierarchies and spirituality across transnational black communities. Subjects include the concept of "erotic subjectivity" from various theoretical and methodological angles, principally within African diasporic contexts. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 345F, 372G (Topic 33), Anthropology 324L (Topic 48), Women's and Gender Studies 340 (Topic 52). Additional prerequisite: Upper-division standing.

**Topic 53: Women and Social Movements in the Twentieth-Century United States.** Same as African and African Diaspora Studies 351C, American Studies 321 (Topic 10), and History 365G (Topic 8). Examines women's participation in well-known and lesser-known social movements during the twentieth century. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351C, 372C (Topic: Women and Socl Mvmnts in US), 372C (Topic 7), American Studies 321 (Topic 10), History 365G (Topic 8), Women's and Gender Studies 340 (Topic 53). Additional prerequisite: Upper-division standing.

**Topic 54: The Qur'an.** Same as Comparative Literature 323 (Topic 37), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), and Religious Studies 325G. The history, language, style, and themes of the Qur'an. Only one of the following may be counted: Comparative Literature 323 (Topic: The Qur'an), 323 (Topic 37), Core Texts and Ideas 375 (Topic: The Qur'an), Core Texts and Ideas 375 (Topic 1), Islamic Studies 340 (Topic 2), Middle Eastern Languages and Cultures 321 (Topic 9), Middle Eastern Studies 342 (Topic 16), Religious Studies 325G, Women's and Gender Studies 340 (Topic: The Qur'an), 340 (Topic 54). Additional prerequisite: Upper-division standing.

**Topic 55: Women Filmmakers in the Middle East.** Same as Middle Eastern Languages and Cultures 321 (Topic 23) and Middle Eastern Studies 342 (Topic 32). Only one of the following may be counted: Middle Eastern Languages and Cultures 321 (Topic 23), Middle Eastern Studies 322K (Topic: Women Filmmakers in the Middle East), 342 (Topic 32), Turkish 372 (Topic: Women Filmmakers in the Middle East), Women's and Gender Studies 340 (Topic: Women Filmmakers in the Middle East), 340 (Topic 55). Additional prerequisite: Upper-division standing.

**Topic 56: Muslim Women in Politics.** Same as Anthropology 324N, Islamic Studies 372 (Topic 23), and Religious Studies 358D. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Muslim Women in Politics), 324N, Islamic Studies 372 (Topic: Muslim Women in Politics), 372 (Topic 23), Religious Studies 358 (Topic: Muslim Women in Politics),

358 (Topic 19), 358D, Women's and Gender Studies 340 (Topic: Muslim Women in Politics), 340 (Topic 56). Additional prerequisite: Upper-division standing.

**Topic 57: Sacred and Ceremonial Textiles.** Same as Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Middle Eastern Languages and Cultures 321 (Topic 34), and Religious Studies 358T. Textiles and material objects indigenous to the Islamic world, and what they reveal about the culture of various Islamic societies. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic 29), Islamic Studies 372 (Topic 11), Middle Eastern Languages and Cultures 321 (Topic: Sacred and Ceremonial Textiles), 321 (Topic 34), Religious Studies 358 (Topic 11), 358T, Textiles and Apparel 365 (Topic: Sacred and Ceremonial Textiles), Women's and Gender Studies 340 (Topic 57). Additional prerequisite: Upper-division standing.

**Topic 58: Queer Ethnographies.** Same as Anthropology 324L (Topic 45). Anthropological analysis of gender and sexuality that critically evaluates formative concepts and theories that have been subject to recent debates within anthropology, gender studies, and queer theory. Only one of the following may be counted: Anthropology 324L (Topic: Queer Ethnographies), 324L (Topic 45), Women's and Gender Studies 340 (Topic: Queer Ethnographies), 340 (Topic 58).

**Topic 59: Ancient Mediterranean Masculinities.** Same as Classical Civilization 348 (Topic 18). Examines in-depth literary and artistic evidence from multiple ancient cultures to determine how each society defined the distinctively "masculine" role it expected of men and boys and how each society transformed boys into men. Only one of the following may be counted: Classical Civilization 348 (Topic: Ancient Mediterranean Masculinities), 348 (Topic 18), Women's and Gender Studies 340 (Topic: Ancient Mediterranean Masculinities), 340 (Topic 59).

**Topic 60: Women and Resistance in Contemporary Eastern Europe.** Same as European Studies 347 (Topic 44) and Russian, East European, and Eurasian Studies 325 (Topic 36). Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Women and Resistance in Contemporary Eastern Europe), 347 (Topic 44), Russian, East European, and Eurasian Studies 325 (Topic: Women and Resistance in Contemporary Eastern Europe), 325 (Topic 36), Women's and Gender Studies 340 (Topic: Women and Resistance in Contemporary Eastern Europe), 340 (Topic 60). Additional prerequisite: Upper-division standing.

**Topic 61: Arendt and de Beauvoir.** Same as Comparative Literature 323 (Topic 45), European Studies 347 (Topic 37), and German, Scandinavian, and Dutch Studies 341M. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Arendt And De Beauvoir), 323 (Topic 45), European Studies 347 (Topic: Arendt And De Beauvoir), 347 (Topic 37), German, Scandinavian, and Dutch Studies 340 (Topic: Arendt And De Beauvoir), 341M, Women's and Gender Studies 340 (Topic: Arendt And De Beauvoir), 340 (Topic 61). Additional prerequisite: Upper division standing.

**Topic 62: Gender and Art in the Muslim World.** Same as Asian Studies 374D, Islamic Studies 373 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 31), Middle Eastern Studies 342 (Topic 40), and Religious Studies 358W. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 46), 374D, Islamic Studies 373 (Topic 15), Middle Eastern Languages and Cultures 321 (Topic 31), Middle Eastern Studies 342 (Topic 40), Religious Studies 358 (Topic 20), 358W, Women's and Gender Studies 340 (Topic 62). Additional prerequisite: Upper-division standing.

**Topic 65: Feminism and Film: Women Filmmakers in Northern and Central Europe.** Same as Comparative Literature 323 (Topic 33), European Studies 347 (Topic 24), and German, Scandinavian, and Dutch Studies 331D. An introduction to the work of women

filmmakers from Scandinavia, Germany, as well as to the viewing and interpretation of films in general. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Women Filmmakers in Northern and Central Europe), 323 (Topic 33), European Studies 347 (Topic: Women Filmmakers in Northern and Central Europe), 347 (Topic 24), German, Scandinavian, and Dutch Studies 330 (Topic: Women Filmmakers in Northern and Central Europe), 331D, Women's and Gender Studies 340 (Topic: Women Filmmakers in Northern and Central Europe), 340 (Topic 65). Additional prerequisite: Upper-division standing.

**Topic 66: Holocaust Aftereffects.** Same as Comparative Literature 323 (Topic 40), European Studies 346 (Topic 23), German, Scandinavian, and Dutch Studies 360 (Topic 1), Jewish Studies 365 (Topic 14), and Religious Studies 357V. Explores the historical, political, psychological, theological, and cultural fallout of the Holocaust, as well as literary and cinematic responses in Europe and the United States. Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic 40), European Studies 346 (Topic 23), German, Scandinavian, and Dutch Studies 360 (Topic 1), Jewish Studies 365 (Topic 14), Liberal Arts Honors 350 (Topic: Holocaust Aftereffects), 351Q, Religious Studies 357 (Topic 18), 357V, Women's and Gender Studies 340 (Topic: Holocaust Aftereffects), 340 (Topic 66). Additional prerequisite: Upper-division standing.

**Topic 67: Graffiti and Poster Art in the Islamic World.** Same as Anthropology 324L (Topic 59), Islamic Studies 373 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic 36), Middle Eastern Studies 342 (Topic 44), and Religious Studies 359C. Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Graffiti/Poster Art: Islm Wrld), 324L (Topic 59), Islamic Studies 373 (Topic: Graffiti/Poster Art: Islm Wrld), 373 (Topic 17), Middle Eastern Languages and Cultures 321 (Topic: Graffiti/Poster Art: Islam World), 321 (Topic 36), Middle Eastern Studies 342 (Topic: Graffiti/Poster Art: Islam World), 342 (Topic 44), Religious Studies 358 (Topic: Graffiti/Poster Art: Islm Wrld), 358 (Topic 21), 359C, Women's and Gender Studies 340 (Topic: Graffiti/Poster Art: Islm Wrld), 340 (Topic 67). Additional prerequisite: Upper-division standing.

**Topic 68: Women and Wealth in South Asia.** Same as Asian Studies 372Q and History 350L (Topic 94). Addresses the questions surrounding poverty of South Asian women by combining legal, political and social histories of the subcontinent over four centuries. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic: Women and Wealth in South Asia), 372 (Topic 47), 372Q, History 350L (Topic: Women and Wealth in South Asia), 350L (Topic 94), Women's and Gender Studies 340 (Topic: Women and Wealth in South Asia), 340 (Topic 68). Additional prerequisite: Upper-division standing.

**Topic 69: Black Women on Trial.** Same as African and African Diaspora Studies 350F and History 350R (Topic 40). Using press coverage of historical and contemporary court cases and trials of women ranging from Angela Davis to Marissa Alexander, explores how media shapes public and popular perceptions of race, class, gender, sexuality, and the law. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350F, 374D (Topic: Black Women on Trial), History 350R (Topic: Black Women on Trial), 350R (Topic 40), Women's and Gender Studies 340 (Topic: Black Women on Trial), 340 (Topic 69). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 70: Women, Gender, and Black Power.** Same as African and African Diaspora Studies 350G and History 350R (Topic 41). Examines the Black Power Movement through the experiences of African American women activists as well as gender and sexuality constructs that prevailed during the second half of the twentieth century Three

lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350G, 374D (Topic: Women, Gender, and Black Power), History 350R (Topic: Women, Gender, and Black Power), 350R (Topic 41), Women's and Gender Studies 340 (Topic: Women, Gender, and Black Power), 340 (Topic 70). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 71: Rethinking Blackness.** Same as African and African Diaspora Studies 350M and American Studies 321N. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350M, 372C (Topic: Rethinking Blackness), American Studies 321 (Topic: Rethinking Blackness), 321N, English 376M (Topic: Rethinking Blackness), Theatre and Dance 357T (Topic: Rethinking Blackness), Women's and Gender Studies 340 (Topic: Rethinking Blackness), 340 (Topic 71). Additional prerequisite: Upper-division standing.

**Topic 72: Gwendolyn Brooks.** Same as African and African Diaspora Studies 330E and Theatre and Dance 357T (Topic 11). Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330E, 372E (Topic: Gwendolyn Brooks), English 349S (Topic: Gwendolyn Brooks), Theatre and Dance 357T (Topic: Gwendolyn Brooks), 357T (Topic 11), Women's and Gender Studies 340 (Topic: Gwendolyn Brooks), 340 (Topic 72). Additional prerequisite: Upper-division standing.

**Topic 73: African History in Films and Photographs.** Same as African and African Diaspora Studies 340F and History 364F. Explore the social, economic, and political challenges of the past fifty years of Africa's history through an examination of several popular films. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 340F, 372G (Topic 32), History 364F, 364G (Topic 4), Women's and Gender Studies 340 (Topic: African History in Films and Photographs), 340 (Topic 73). Additional prerequisite: Upper-division standing.

**Topic 74: Bad Language: Race, Class, and Gender.** Same as Comparative Literature 323 (Topic 52), Mexican American Studies 363R, and Russian, East European, and Eurasian Studies 325 (Topic 32). Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Bad Language: Race, Class, and Gender), Comparative Literature 323 (Topic: Bad Language: Race, Class, and Gender), 323 (Topic 52), Linguistics 350 (Topic: Bad Language: Race, Class, and Gender), Mexican American Studies 363R, 374 (Topic: Bad Language: Race, Class, and Gender), Russian 369 (Topic: Bad Language: Race, Class, and Gender), Russian, East European, and Eurasian Studies 325 (Topic: Bad Language: Race, Class, and Gender), 325 (Topic 32), Women's and Gender Studies 340 (Topic: Bad Language: Race, Class, and Gender), 340 (Topic 74). Additional prerequisite: Upper-division standing.

**Topic 75: Gender and Modern India.** Same as Asian Studies 361 (Topic 44) and History 367D. Examines gender and the shifting nature of modernity between precolonial and colonial periods in the Indian subcontinent. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 361 (Topic: Gender and Modern India), 361 (Topic 44), History 364G (Topic: Gender and Modern India), 364G (Topic 13), 367D, Women's and Gender Studies 340 (Topic: Gender and Modern India), 340 (Topic 75). Additional prerequisite: Upper division standing.

**Topic 76: Human Rights and World Politics.** Same as Government 365W. Introduction to the political and policy dimensions of human rights. Three lecture hours a week for one semester. Only one of the following may be counted: Government 365N (Topic: Human Rights and World Politics), 365N (Topic 24), 365W, Women's and Gender Studies 340 (Topic: Human Rights and World Politics), 340 (Topic 76). Additional prerequisite: Upper-division standing and six hours of lower-division coursework in government.

**Topic 78: Reproductive Justice and Race.** Same as Asian American Studies 330M and Sociology 335R. Examine the links between reproductive care and social inequality, and explore reproductive outcomes for women in the context of social justice. Three lecture hours a week for one semester. Only one of the following may be counted: Asian American Studies 330 (Topic: Reproductive Justice & Race), 330M, Sociology 321K (Topic: Reproductive Justice & Race), 355R, Women's and Gender Studies 340 (Topic: Reproductive Justice & Race), 340 (Topic 78). Additional prerequisite: Upper-division standing.

**Topic 79: Forugh Farrokhzad and Her Poetry.** Same as Comparative Literature 323 (Topic 62) and Middle Eastern Studies 342 (Topic 61). Only one of the following may be counted: Comparative Literature 323 (Topic: Forugh Farrokhzad/Her Ptry), 323 (Topic 62), Middle Eastern Languages and Cultures 321 (Topic: Forugh Farrokhzad/Her Ptry), Middle Eastern Studies 342 (Topic: Forugh Farrokhzad/Her Ptry), 342 (Topic 61), Women's and Gender Studies 340 (Topic: Forugh Farrokhzad/Her Ptry), 340 (Topic 79). Additional prerequisite: Upper-division standing.

**Topic 80: Islamic Ethics.** Same as Islamic Studies 340 (Topic 9), Middle Eastern Studies 342 (Topic 58), and Religious Studies 358R. Three lecture hours a week for one semester. Only one of the following may be counted: Islamic Studies 340 (Topic: Islamic Ethics), 340 (Topic 9), Middle Eastern Studies 342 (Topic: Islamic Ethics), 342 (Topic 58), Religious Studies 358 (Topic: Islamic Ethics), 358R, Women's and Gender Studies 340 (Topic: Islamic Ethics), 340 (Topic 80). Additional prerequisite: Upper-division standing.

**Topic 81: Iranian and Iranian-American Identity.** Same as Comparative Literature 323 (Topic 63), Middle Eastern Languages and Cultures 321C, and Middle Eastern Studies 342 (Topic 62). Three lecture hours a week for one semester. Only one of the following may be counted: Comparative Literature 323 (Topic: Iran/Iranian-Amer Ident), 323 (Topic 63), Middle Eastern Languages and Cultures 321 (Topic: Iran/Iranian-Amer Ident), 321C, Middle Eastern Studies 342 (Topic: Iran/Iranian-Amer Ident), 342 (Topic 62), Women's and Gender Studies 340 (Topic: Iran/Iranian-Amer Ident), 340 (Topic 81). Additional prerequisite: Upper-division standing.

**Topic 82: Race, Capitalism, and the Environment.** Same as African and African Diaspora Studies 351U and Geography 324F. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 351U, 372C (Topic: Race/Capitalism/Environment), Geography 324F, 356T (Topic: Race/Capitalism/Environment), Women's and Gender Studies 340 (Topic: Race/Capitalism/Environment), 340 (Topic 82). Additional prerequisite: Upper-division standing.

**Topic 83: Black Middle Class.** Same as African and African Diaspora Studies 350C and American Studies 324C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350C, 372C (Topic: Black Middle Class), American Studies 321 (Topic: Black Middle Class), 324C, Women's and Gender Studies 340 (Topic: Black Middle Class), 340 (Topic 83). Additional prerequisite: Upper-division standing.

**Topic 84: Fashion And Desire.** Same as African and African Diaspora Studies 330C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330C, 372E (Topic: Fashion And Desire), Textiles and Apparel 365 (Topic: Fashion And Desire), Women's and Gender Studies 340 (Topic: Fashion And Desire), 340 (Topic 84). Additional prerequisite: Upper-division standing.

**Topic 86: Julia Alvarez and Sandra Cisneros.** Same as English 348C and Mexican American Studies 345C. Three lecture hours a week for one semester. Only one of the following may be counted: English 348C, 349S (Topic: Alvarez and Cisneros), Mexican American Studies 345C, 374 (Topic: Alvarez and Cisneros), Women's and Gender

Studies 340 (Topic: Alvarez and Cisneros), 340 (Topic 86). Additional prerequisite: Upper-division standing.

**Topic 87: Chicana Feminisms.** Same as American Studies 324I and Mexican American Studies 337C. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Chicana Feminisms), 324I, Mexican American Studies 337C, 374 (Topic: Chicana Feminisms), Women's and Gender Studies 340 (Topic: Chicana Feminisms), 340 (Topic 87). Additional prerequisite: Upper division standing.

**Topic 88: Latina Feminism and Health.** Same as Mexican American Studies 337F. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 337F, 374 (Topic: Latina Feminism and Health), Women's and Gender Studies 340 (Topic: Latina Feminism and Health), 340 (Topic 88). Additional prerequisite: Upper-division standing.

**Topic 89: Transnational Latinx Popular Culture.** Same as Latin American Studies 328C and Mexican American Studies 347C. Three lecture hours a week for one semester. Only one of the following may be counted: Latin American Studies 328 (Topic: Transnatl Latinx Pop Culture), 328C, Mexican American Studies 347C, 374 (Transnatl Latinx Pop Culture), Women's and Gender Studies 340 (Topic: Transnatl Latinx Pop Culture), 340 (Topic 89). Additional prerequisite: Upper-division standing.

**Topic 90: Latinx Short Story.** Same as English 343E and Mexican American Studies 345E. Three lecture hours a week for one semester. Only one of the following may be counted: English 343E, 376M (Topic: Latinx Short Story), Mexican American Studies 345E, 374 (Topic: Latinx Short Story), Women's and Gender Studies 340 (Topic: Latinx Short Story), 340 (Topic 90). Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for other majors, upper-division standing.

**Topic 91: Sexuality and Gender in Latin America.** Same as History 366P and Latin American Studies 366 (Topic 41). Explore gender as a broad analytical tool to understand key problems concerning social organization, power relations, and inequality in contemporary Latin America. Three lecture hours a week for one semester. Only one of the following may be counted: History 363K (Topic: Sexuality/Gender in Latin Amer), 366N (Topic: Sexuality/Gender in Latin Amer), 366P, Latin American Studies 366 (Topic: Sexuality/Gender in Latin Amer), 366 (Topic 41), Women's and Gender Studies 340 (Topic: Sexuality/Gender in Latin Amer), 340 (Topic 91). Additional prerequisite: Upper-division standing.

**Topic 92: Italian Television Advertising.** Same as European Studies 347 (Topic 51) and Italian Civilization 338. Analysis of Italian television commercials in order to identify changes that have taken place at the level of language, with some attention to socio-cultural dynamics. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Itl TV Ads: Fashion/Food/Cars), 347 (Topic 51), Italian Civilization 338, 349 (Topic: Itl TV Ads: Fashion/Food/Cars), Women's and Gender Studies 340 (Topic: Itl TV Ads: Fashion/Food/Cars), 340 (Topic 92). Additional prerequisite: Upper-division standing.

**Topic 93: Gender and Labor in Global Asia.** Same as Anthropology 324P and Asian Studies 379 (Topic 12). Three lecture hours a week for one semester. Only one of the following may be counted: Anthropology 324L (Topic: Gender & Labor in Global Asia), 324P, Asian Studies 379 (Topic: Gender & Labor in Global Asia), 379 (Topic 12), Women's and Gender Studies 340 (Topic: Gender & Labor in Global Asia), 340 (Topic 93). Additional prerequisite: For Asian studies majors, twelve semester hours of upper-division coursework in Asian studies; for others, upper-division standing.

**Topic 94: African-American Women's Political Activism.** Same as African and African Diaspora Studies 352K and Government 371M. Explore Black feminism and African-American women's political participation. Three lecture hours a week for one semester. Only one

of the following may be counted: African and African Diaspora Studies 352K, 374D (Topic: Afr Amer Women Pol Activism), Government 355M (Topic: Afr Amer Women Pol Activism), 370K (Topic: Afr Amer Women Pol Activism), 371M, Women's and Gender Studies 340 (Topic 94). Additional prerequisite: Six semester hours of lower-division coursework in government and upper-division standing.

**Topic 95: Policing Latinidad.** Same as American Studies 324G and Mexican American Studies 364E. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 321 (Topic: Policing Latinidad), 324G, Mexican American Studies 364E, 374 (Topic: Policing Latinidad), Women's and Gender Studies 340 (Topic: Policing Latinidad), 340 (Topic 95). Additional prerequisite: Upper-division standing.

**Topic 97: Tejana Cultural Studies.** Same as American Studies 370 (Topic 67) and Mexican American Studies 337I. Investigate the history of Tejanas to reaffirm and reclaim their place and role in the histories of Native Americans, women, Chican@/Chicanxs, Greater Mexico, and the United States. Explore how transborderism and transregionalism complicate this history. Contemplate how Tejanas' stories are fundamental to illuminating the struggles, resistance, and liberation of Chicanas, mestizas, and afromexicanas from precontact to decolonization. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 370 (Topic: Tejana Cultural Studies), 370 (Topic 67), Mexican American Studies 337I, 374 (Topic: Tejana Cultural Studies), Women's and Gender Studies 340 (Topic: Tejana Cultural Studies), 340 (Topic 97). Additional prerequisite: Upper-division standing.

**Topic 99: Latina Filmmakers.** Same as Mexican American Studies 370C and Radio-Television-Film 359 (Topic 10). Explore the history of U.S.-based Latina filmmakers (primarily directors, producers, and screenwriters) and the images they have created. Examine early representations of Latinas in Hollywood film and consider how Latina filmmakers have gained increasing control over their own images, particularly since the 1990s. Three lecture hours a week for one semester. Only one of the following may be counted: Mexican American Studies 370C, 374 (Topic: Latina Filmmakers), Radio-Television-Film 359 (Topic: Latina Filmmakers), 359 (Topic 10), Women's and Gender Studies 340 (Topic: Latina Filmmakers), 340 (Topic 99). Additional prerequisite: Upper-division standing.

#### **WGS 441. The Roots of Social and Economic Justice.**

Four lecture hours a week for one semester. Only one of the following may be counted: Social Work 460K (Topic: Roots of Social and Economic Justice), Women's and Gender Studies 440 (Topic: Roots of Social and Economic Justice), 441. Prerequisite: Upper-division standing.

#### **WGS 345. Topics in Women's and Gender Studies.**

Three lecture hours a week for one semester, or as required for the topic. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; additional prerequisites vary with the topic.

##### **Topic 1: Child Development.**

**Topic 2: The Family.** Same as Sociology 323. The American family in historical and comparative perspective. Family history and origins; comparative family systems; social antecedents of family structure and process; family formation and dissolution; family and society; recent family changes and prospects for the future. Three lecture hours a week for one semester. Sociology 323 and Women's and Gender Studies 345 (Topic 2) may not both be counted. Additional prerequisite: Upper-division standing.

**Topic 3: Women in Sickness and Health.** Same as History 350R (Topic 18). Explores medical and biological views throughout the nineteenth and twentieth centuries of women and women's health, the social context of those views, the development of medical practices, and the treatment of illness and debility. Only one of the following may be

counted: History 350L (Topic: Women in Sickness and Health), 350R (Topic 18), Women's and Gender Studies 345 (Topic 3). Additional prerequisite: Six semester hours of coursework in history.

**Topic 5: Women and Sport.** Same as Kinesiology 352K (Topic 3: Women and Sport).

**Topic 7: Eighteenth-Century Women Writers.** Same as English 350M (Topic 1). Women writers in the early eighteenth-century canon. Argues for a historical perspective that demonstrates the centrality of early eighteenth-century women writers to the western canon. English 350M (Topic 1) and Women's and Gender Studies 345 (Topic 7) may not both be counted. Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**Topic 9: Women in Classical Antiquity.** Same as Classical Civilization 348 (Topic 7: Women in Classical Antiquity).

**Topic 13: Isak Dinesen/Karen Blixen.** Same as Comparative Literature 323 (Topic 14), European Studies 347 (Topic 15), and German, Scandinavian, and Dutch Studies 341G. An introduction to the twentieth-century Danish author Karen Blixen, focusing on her major themes such as gender and destiny, and examining her role as a literary figure. Only one of the following may be counted: Comparative Literature 323 (Topic: Isak Dinesen/Karen Blixen), 323 (Topic 14), European Studies 347 (Topic: Isak Dinesen/Karen Blixen), 347 (Topic 15), German, Scandinavian, and Dutch Studies 341G, Women's and Gender Studies 345 (Topic 13). Additional prerequisite: Upper-division standing.

**Topic 14: Social Dramas of Henrik Ibsen.** Same as Comparative Literature 323 (Topic 17), European Studies 347 (Topic 12), and German, Scandinavian, and Dutch Studies 341D. A detailed introduction to Ibsen's social dramas (1877-1899), emphasizing their unity as a prolonged commentary on the society of his era and the variety of its human problems. Special emphasis on subjects such as: the family and the home; the public world of reputation, work, and citizenship; the predicaments of men and women in a male-dominated society; and the motives of our interventions into the lives of others. Only one of the following may be counted: Comparative Literature 323 (Topic: Social Dramas of Henrik Ibsen), 323 (Topic 17), English 322 (Topic 17), European Studies 347 (Topic: Social Dramas of Henrik Ibsen), 347 (Topic 12), German, Scandinavian, and Dutch Studies 341D, Women's and Gender Studies 345 (Topic 14). Additional prerequisite: Upper-division standing.

**Topic 21: Male-Female Communication.** Same as Communication Studies 365K. Studies of speech patterns related to the concepts of male and female, including sexism in speaking, patterns of male and female speaking, patterns of listening to males and females, speech in courtship and family, speech and sexual discrimination in careers. Prerequisite: Upper-division standing.

**Topic 23: Sociology of Education.** Same as African and African Diaspora Studies 321L and Sociology 321L. Education as a societal institution, with emphasis on the United States educational system: how the system works; the effects of the system; recent changes. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 321L, Sociology 321L, Women's and Gender Studies 345 (Topic 23). Additional prerequisite: Upper-division standing.

**Topic 26: American Dilemmas.** Same as Sociology 336C and Urban Studies 352C. Examination of critical American social problems, including problems in the economic, political, and health care systems, as well as inequities based on income, gender, and race. Exploration of how these problems are a natural outgrowth of the existing social structure. Three lecture hours a week for one semester. Only one of the following may be counted: Sociology 336C, Urban Studies 352C, 354 (Topic 13), Women's and Gender Studies 345 (Topic 26). Additional prerequisite: Upper-division standing.

**Topic 27: Southern Cultures.** Same as American Studies 370 (Topic 40: Southern Cultures). Investigation of multiple, fluid, and diverse southern cultures through topics such as NASCAR, biscuits and cornbread, mega-churches, beauty pageants, jazz, country music, southern hip hop, migrant farm cultures, matzo ball soup with collards, the Trail of Tears, Gullah, Tara, Graceland, and more. Includes discussion of stereotypes and the individual truths about women, men, and southern in the context of this discussion. Prerequisite: Upper-division standing.

**Topic 28: Cult Movies and Gender Issues.** Three lecture hours and two and one-half screening hours a week for one semester. Prerequisite: Upper-division standing.

**Topic 29: Witches, Workers, and Wives.** Same as European Studies 346 (Topic 3: Witches, Workers, and Wives) and History 343W. Explores the role of families and concepts of gender as expressed in key economic, social, political, and cultural patterns in early modern Europe. Prerequisite: Upper-division standing.

**Topic 31: Gender and Slavery in the United States.** Same as African and African Diaspora Studies 350V and History 350R (Topic 14). Examines the gendered experience of chattel slavery in the United States. Includes critical analysis of classic and contemporary texts, films, and songs that focus on slave labor, family, community, sexuality, and the economy. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 350V, 372C (Topic 4), History 350R (Topic 14), Women's and Gender Studies 345 (Topic 31). Additional prerequisite: Upper-division standing and six semester hours of coursework in history.

**Topic 32: Women in the History of Political Thought.** Same as Core Texts and Ideas 335W and Government 335F. Examines the themes of women, the family, and the private sphere in the history of political theory. Three lecture hours a week for one semester. Only one of the following may be counted: Core Texts and Ideas 335 (Topic: Women in Hist of Polit Thought), 335 (Topic 5), 335W, Government 335F, 335M (Topic: Women in History of Political Thought), 335M (Topic 17), Women's and Gender Studies 345 (Topic: Women in History of Political Thought), 345 (Topic 32). Additional prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

**Topic 33: The History of Witchcraft.** Study of the prosecution of people, most of them women, for the crime of witchcraft in Europe and colonial America between 1450 and 1750. Prerequisite: Upper-division standing.

**Topic 35: Psychosocial Issues in Women's Health.** Same as Health Education 361. Explores psychosocial issues in women's physical and mental health, including traditional reproductive issues, disorders that are more common in women than in men, and the leading causes of death in women. Covers gender influences on health risk behaviors, and societal influences on women's health through a consideration of social norms and roles. Three lecture hours a week for one semester. Only one of the following may be counted: Health Education 352K (Topic 2: Psychosocial Issues in Women's Health), 361, Women's and Gender Studies 345 (Topic 35). Additional prerequisite: Upper-division standing.

**Topic 36: Feminist Media Theory.** Survey of basic theories related to the structure and process of film and video communication. Three lecture hours and two and one-half screening hours a week for one semester.

**Topic 37: Women in Postwar America.** Same as American Studies 370 (Topic 30) and History 350R (Topic 8). Only one of the following may be counted: American Studies 370 (Topic 30), History 350R (Topic 8), Women's and Gender Studies 345 (Topic 37).

**Topic 38: History of Sexuality in America.** Same as History 350R (Topic 13). History 350R (Topic 13) and Women's and Gender Studies

345 (Topic 38) may not both be counted. Additional prerequisite: Six semester hours of coursework in history.

**Topic 40: Virginia Woolf.** Same as English 349S (Topic 8). Examines critical and fictional works of Virginia Woolf and the author's continuing legacy and influence. Explores the value and limitations of high modernism; English literary heritage and tradition; feminism; creative and critical definitions of gender and sexuality; intellectual activism, including Woolf's critiques of patriarchy, war, and fascism; and Woolf and imperialism and colonialism. English 349S (Topic 8) and Women's and Gender Studies 345 (Topic 40) may not both be counted. Additional prerequisite: Nine semester hours of coursework in English or rhetoric and writing.

**Topic 41: American Food.** Same as American Studies 370 (Topic 26: American Food). Studies diverse American food cultures from a humanities perspective, exploring connections between global, national, and local communities. Uses scholarship in the field of food studies as well as cookbooks, novels, poetry, photographs, songs, documentaries, and oral histories to investigate the past and present of American food communities. Prerequisite: Upper-division standing.

**Topic 42: Nature and Gender in America.** Same as American Studies 370 (Topic 27: Nature and Gender in America). Study of the connections between nature and gender in American national narratives. Explores how Americans of differing classes, races, genders, sexual orientations, and ages have shaped and experienced changing ideas of America, wilderness, domestication, and society over time and in different regions of the country. Prerequisite: Upper-division standing.

**Topic 43: Animals and American Culture.** Same as American Studies 370 (Topic 28) and History 350R (Topic 9). Explores the role of animals in American history, culture, and society. Only one of the following may be counted: American Studies 370 (Topic 28), History 350R (Topic 9), Women's and Gender Studies 345 (Topic 43).

**Topic 44: Women Radicals and Reformers.** Same as American Studies 370 (Topic 29: Women Radicals and Reformers). Traces traditions of women's radical activism and reform beginning with the Enlightenment and the American Revolution and continuing to the present, with concentration on the twentieth century. Prerequisite: Upper-division standing.

**Topic 46: Toni Morrison.** Same as African and African Diaspora Studies 330J and English 349S (Topic 5). An examination of select novels by the Nobel Laureate and Pulitzer Prize-winning novelist focuses on the positional uniqueness that womanism shares with a predominant feminism, which surfaces in historicized familial relationships. Three lecture hours a week for one semester. Only one of the following may be counted: African and African Diaspora Studies 330J, 372E (Topic 1), English 349S (Topic 5), Women's and Gender Studies 345 (Topic 46). Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**Topic 48: Women's Autobiographical Writing.** Same as English 323W. Examines the autobiographical impulse in women's writing by exploring the concept of the individualistic self versus the sense of self as a part of community and duty, and the way in which that communal self can both partake of humankind and participate in self-actualization. Three lecture hours a week for one semester. Only one of the following may be counted: English 323W, 370W (Topic 11), Women's and Gender Studies 345 (Topic 48). Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**Topic 49: History of American Feminism.** Same as History 350R (Topic 20). Only one of the following may be counted: History 350R (Topic: History of American Feminism), 350R (Topic 20), Women's and Gender Studies 345 (Topic: History of American Feminism), 345 (Topic 49).

**Topic 52: American Literary Masculinities.** Same as English 323G. Explores constructions of masculinity in American literature from a

generally, but not exclusively, feminist perspective. Subjects include what masculinity has meant at different times in United States history, and how it has varied in meaning and significance according to broad categories of identity such as social class, race, region, and queerness. Three lecture hours a week for one semester. Only one of the following may be counted: English 323G, 370W (Topic 12), Women's and Gender Studies 345 (Topic 52). Additional prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

**Topic 53: Gender and Sexuality in Ancient Novel.** Same as Classical Civilization 348 (Topic 13). The major works of prose fiction from Greco-Roman antiquity and how those works relate to the intellectual, cultural, and social currents of late antiquity. Only one of the following may be counted: Classical Civilization 348 (Topic: Gender and Sexuality in Ancient Novel), 348 (Topic 13), Women's and Gender Studies 345 (Topic: Gender and Sexuality in Ancient Novel), 345 (Topic 53).

**Topic 56: Gender And Sexuality in Performance.** Same as Theatre and Dance 357T (Topic 2). Consider what physical performance and dance tell us about gender, sexuality and the body. Previous knowledge of performance or gender studies is not required. Only one of the following may be counted: Theater and Dance 357T (Topic: Gender And Sexuality in Performance), 357T (Topic 2), Women's and Gender Studies 345 (Topic: Gender And Sexuality in Performance), 345 (Topic 56). Additional prerequisite: Upper-division standing and consent of instructor.

#### **WGS 345C. Love, Beauty, and Protection.**

Same as Art History 327U. Examine selected works of Greek and Roman art (sixth century B.C. to fourth century A.D.) to explore how ancients thought about themselves with regard to love, sexuality, divine and human beauty, and protection from demonic forces. Focus on social and cultural contexts, gender, and practices of daily life. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 327U, 362 (Topic: Love, Beauty, and Protection), Women's and Gender Studies 345 (Topic: Love, Beauty, and Protection), 345C.

#### **WGS 345D. Punks and Divas in Southeast Europe.**

Same as European Studies 347 (Topic 47) and Russian, East European, and Eurasian Studies 325 (Topic 38). Examine popular music and its role in political struggle and collective identity formation in the Balkans. Analyze music genres in this region in the context of the historical changes it underwent in the twentieth and twenty-first centuries, including the fall of Communism and – in the case of former Yugoslavia – the formation of seven new nation-states through a series of bloody and brutal wars. Three lecture hours a week for one semester. Only one of the following may be counted: European Studies 347 (Topic: Punks/Divas in SE Europe), 347 (Topic 47), Russian, East European, and Eurasian Studies 325 (Topic: Punks/Divas in SE Europe), 325 (Topic 38), Women's and Gender Studies 345 (Topic: Punks/Divas in SE Europe), 345D. Prerequisite: Upper-division standing.

#### **WGS 345E. Lesbian, Gay, Bisexual, Transgender, and Queer Literature and Culture.**

Same as English 343Q. Three lecture hours a week for one semester. Only one of the following may be counted: English 343Q, 370W (Topic 8), Women's and Gender Studies 345 (Topic 30), 345E. Prerequisite: For English majors, nine semester hours of coursework in English or rhetoric and writing; for others, upper-division standing.

#### **WGS 350. Feminist Theory.**

Restricted to women's and gender studies majors and minors. Feminist theory with selections from women's and gender studies scholars. Recommended feminist theory course for women's and gender studies majors. Three lecture hours a week for one semester. Prerequisite: Upper-

division standing and nine semester hours of coursework in women's and gender studies.

### **WGS 356. Introduction to Feminist Research Methods.**

Restricted to women's and gender studies majors and minors. Introduction to feminist research methods across a range of traditional disciplines. Designed to prepare students to analyze research within gender studies and to develop their own research skills. Three lecture hours a week for one semester. Prerequisite: Upper-division standing, and six semester hours of coursework in women's and gender studies.

### **WGS 358Q. Supervised Research.**

Supervised individual research on an issue in women's and gender studies. Individual instruction. Prerequisite: Upper-division standing, Women's and Gender Studies 356 with grade of at least C-, and written consent of the supervising faculty member; consent forms are available in the Center for Women's and Gender Studies.

### **WGS 360. Research and Thesis in Women's and Gender Studies.**

Restricted to women's and gender studies majors. Individual project or paper to be completed under the direction of a women's and gender studies faculty member. Conference course. Offered on the letter-grade basis only. Prerequisite: Upper-division standing; Women's and Gender Studies 356 with grade of at least C-; credit or registration for Women's and Gender Studies 358Q; and written consent of the supervising faculty member on a consent form available in the Center for Women's and Gender Studies for that purpose.

### **WGS 679H. Honors Tutorial Course.**

Restricted to honors candidates majoring in women's and gender studies. Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis. The equivalent of three lectures hours a week for two semesters. Prerequisite: For 679HA, twelve semester hours of coursework in women's and gender studies and consent of supervising faculty; for 679HB, Women's and Gender Studies 679HA.

### **WGS 379L. Internship in Women's and Gender Studies.**

Experience working in the community or for a nonprofit agency. Ten to fifteen hours of work a week for one semester. Prerequisite: At least twelve semester hours of coursework in women's and gender studies and written consent of the supervising faculty member; consent forms are available in the Center for Women's and Gender Studies.

### **WGS 379S. Senior Seminar.**

Intensive study of selected topics in women's and gender studies. Three lecture hours a week for one semester. May not be repeated for credit. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and completion of at least ninety semester hours of coursework, including six hours in women's and gender studies.

## **Graduate Courses**

### **WGS 481. The Roots of Social and Economic Justice.**

Four lecture hours a week for one semester. Social Work 495K (Topic: Roots of Social and Economic Justice) and Women's and Gender Studies 481 may not both be counted. Prerequisite: Graduate standing.

### **WGS 384N. Internship in Women's and Gender Studies.**

Practical working involvement with participating nonprofit and research agencies. The equivalent of ten class hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate adviser.

### **WGS 390. Introduction to Women's and Gender Studies.**

Introduction to the interdisciplinary women's and gender studies graduate program. Three lecture hours and one hour-long faculty colloquium a week for one semester. Offered in the fall semester only. Prerequisite: For master's students in women's and gender studies, graduate standing; for others, graduate standing and consent of instructor.

### **WGS 390W. Writing Workshop.**

Introduction to feminist writing practice. Three lecture hours a week for one semester. Women's and Gender Studies 390W and 393 (Topic: Writing Workshop: WGS) may not both be counted. Prerequisite: Graduate standing and consent of instructor.

### **WGS 391. Feminist Theories.**

Selected readings of feminist theories from an interdisciplinary perspective. Three lecture hours a week for one semester. Offered in the fall semester only. Prerequisite: For master's students in women's and gender studies, graduate standing and Women's and Gender Studies 390; for others, graduate standing and consent of instructor.

### **WGS 392. Research Methods Seminar in Women's and Gender Studies.**

Introduction to select feminist research methods used in various disciplines and how these methods inform interdisciplinary perspectives in the student's own field of study in preparation for a report, thesis, or dissertation. Three lecture hours and one hour-long faculty colloquium a week for one semester. Prerequisite: For master's students in women's and gender studies, graduate standing and Women's and Gender Studies 390 and 391; for others, graduate standing and consent of instructor.

### **WGS 393. Seminar: Topics in Women's and Gender Studies.**

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing and consent of the graduate adviser. Additional prerequisites vary with the topic.

### **WGS 393L. Topics in International Women's and Gender Studies.**

Explore intersectional and interdisciplinary topics in women's and gender studies. Conducted in languages other than English. Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

### **WGS 394. Conference Course in Women's and Gender Studies.**

Individual directed readings and conferences on selected problems or topics in women's and gender studies. Conference course. May be repeated for credit. Prerequisite: Graduate standing and consent of the graduate adviser.

### **WGS 195. Special Projects in Women's and Gender Studies.**

Interdisciplinary projects to support the women's and gender studies graduate student coursework. One lecture hour a week for one semester, with additional hours to be arranged. May be repeated for credit. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in women's and gender studies, six semester hours of graduate coursework in women's and gender studies, and consent of the graduate adviser.

### **WGS 698. Thesis.**

The equivalent of three lecture hours a week for two semesters. The student must register for Women's and Gender Studies 698B the semester he/she intends to graduate. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in women's and gender studies, consent of the graduate adviser, and a course proposal form signed by the student's thesis supervisor must be turned into the

department office before registration; for 698B, Women's and Gender Studies 698A.

### **WGS 398R. Master's Report.**

Preparation of a report to fulfill the requirement for the master's degree under the report option. The equivalent of three lecture hours a week for one semester. The student must register for Women's and Gender Studies 398R the semester he/she intends to graduate. Offered on the credit/no credit basis only. Prerequisite: Graduate standing in women's and gender studies, consent of the graduate adviser, and a course proposal form signed by the student's thesis supervisor must be turned in to the department office before registration.

## **Professional Courses**

## **Writing Courses**

### **Writing: WRT**

#### **Lower-Division Courses**

#### **Upper-Division Courses**

#### **Graduate Courses**

### **WRT 380. First-Year Seminar.**

Restricted to first-year candidates for the Master of Fine Arts in Writing. Three lecture hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Graduate standing in writing.

### **WRT 380S. Studies in Creative Writing.**

Subjects include the study of literature, creative theory, and criticism in the genres of fiction, nonfiction, poetry, playwriting, and screenwriting. Three lecture hours a week for one semester. Prerequisite: Graduate standing in writing, or graduate standing and consent of the graduate adviser.

### **WRT 380W. Workshop in Creative Writing.**

Subjects include writing fiction, writing poetry, playwriting, and screenwriting. Three lecture hours a week for one semester. Prerequisite: Graduate standing in writing, or graduate standing and consent of the graduate adviser.

### **WRT 182, 282, 382. Independent Projects.**

Restricted to advanced MFA candidates. Conference work and independent study. May be repeated for credit. Prerequisite: Graduate standing in writing, or graduate standing and consent of the graduate adviser.

### **WRT 390. Master's Report.**

The equivalent of three lecture hours a week for one semester. Offered on the credit/no credit basis only. Prerequisite: Graduate standing and consent of the graduate advisor.

### **WRT 698. Thesis.**

Individual instruction. Offered on the credit/no credit basis only. Prerequisite: For 698A, graduate standing in writing and consent of the graduate adviser; for 698B, Writing 698A.

## **Professional Courses**

## **Yiddish Courses**

### **Yiddish: YID**

#### **Lower-Division Courses**

### **YID 604. Accelerated First-Year Yiddish.**

Six lecture hours a week for one semester, with optional laboratory available.

### **YID 612. Accelerated Second-Year Yiddish.**

Six lecture hours a week for one semester, with optional laboratory available. Prerequisite: Yiddish 604.

### **YID 119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Yiddish.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

#### **Upper-Division Courses**

### **YID 327. Advanced Yiddish I.**

Three lecture hours a week for one semester. Prerequisite: Yiddish 612 with a grade of at least C.

### **YID 328. Advanced Yiddish II.**

Three lecture hours a week for one semester. Prerequisite: Yiddish 327 with a grade of at least C.

### **YID 129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Yiddish.**

This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Study Abroad Office. Credit is recorded as assigned by the study abroad adviser in the Department of Germanic Studies. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

### **YID 130D. Yiddish across Disciplines.**

Read and discuss Yiddish language materials related to the subject matter of another designated course. One lecture hour per week for one semester. May be repeated for credit. Prerequisite: Three semester hours of upper-division coursework in Yiddish with a grade of at least C.

### **YID 179, 279, 379. Conference Course in Yiddish Language or Literature.**

Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Yiddish language or literature. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

## **Graduate Courses**

## **Professional Courses**

# Yoruba Courses

## Yoruba: YOR

### Lower-Division Courses

#### **YOR 601C. Beginning Yoruba.**

An intensive beginning course with an emphasis on basic skills: listening, speaking, reading, and writing. Six lecture hours a week for one semester. Yoruba 601C and 506 may not both be counted. Yoruba 601C and 507 may not both be counted.

#### **YOR 506. First-Year Yoruba I.**

Restricted to non-native speakers of Yoruba. Standard Yoruba of southwest Nigeria. Five lecture hours a week for one semester. Yoruba 601C and 506 may not both be counted.

#### **YOR 507. First-Year Yoruba II.**

Restricted to non-native speakers of Yoruba. Continuation of the study of standard Yoruba of southwest Nigeria. Five lecture hours a week for one semester. Yoruba 601C and 507 may not both be counted. Prerequisite: Yoruba 506 with a grade of at least C.

#### **YOR 611C. Intermediate Yoruba.**

An intensive intermediate course with emphasis on basic skills: listening, speaking, reading, and writing. Six lecture hours a week for one semester. Yoruba 611C and 312K may not both be counted. Yoruba 611C and 312L may not both be counted. Prerequisite: Yoruba 601C or 507 with a grade of at least C.

#### **YOR 312K. Second-Year Yoruba I.**

Oral expression, reading, and comprehension. Three lecture hours a week for one semester. Yoruba 611C and 312K may not both be counted. Prerequisite: Yoruba 601C or 507 with a grade of at least C.

#### **YOR 312L. Second-Year Yoruba II.**

Continuation of the study of oral expression, reading, and comprehension. Three lecture hours a week for one semester. Yoruba 611C and 312L may not both be counted. Prerequisite: Yoruba 312K with a grade of at least C.

### Upper-Division Courses

#### Graduate Courses

#### **YOR 382. Yoruba Language Studies.**

Three lecture hours a week for one semester. Prerequisite: Graduate standing.

### Professional Courses

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